

# Annual Report on Loyetea EL12/2014

For:- Edrill Pty. Ltd.

By:- Robert Reid (BSc Hons, MSc Econ Geol)

Consultant Geologist, email: [robreid@bigpond.com](mailto:robreid@bigpond.com)

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## Summary

This Annual Report for Loyetea (EL12/2014) details drilling (2 holes completed for 691.3m) exploration activities for the period 29/7/2019 to 29/7/2020. Edrill continued to target magnetite, Sn, W and base metal mineralisation during the tenure year.

Edrill successfully applied for a 2year extension of term for a reduced 40km<sup>2</sup> area tenement, now ending 29/7/2021.

Key exploration targets are granite related Sn-W magnetite skarn, as well as skarn and vein Cu-Pb-Zn mineralisation. Some VHMS potential also exists with Mount Read Volcanics mapped within the licence area.

Edrill successfully applied for an EDGI grant during the year. Proposed was an approximately 300m deep drill hole to assess an untested magnetic target to the east of recent drilling. Drilling aims to locate economic (Magnetite-Sn-W &/ or Cu-Pb-Zn) resources, with exploration models to be refined by further defining and improving understanding of sub Tertiary basalt stratigraphy and structure in the Loyetea area. The target represents a potential dextral offset from Redwater Creek magnetite mineralisation. The proposed drilling will in effect extend and complete a drill section across the southern granite proximal faulted strike extent of the Redwater Creek Prospect. Significant advances in structural understanding of the south eastern Husetop Granite margin are an expected outcome.

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## Introduction

This fifth annual report for Loyetea (EL12/2014), granted to Edrill Pty. Ltd. on 30/7/2014, details exploration activities for the period 29/7/2019 to 29/7/2020. The tenement is located in NW Tasmania, approximately 20km south of Burnie (Figure 1). The datum used in this report and appended digital data files is GDA94.

Key exploration targets are granite related Sn-W magnetite skarn, as well as skarn and vein Pb-Zn mineralisation. Some VHMS potential also exists within the Mount Read Volcanics mapped in the licence area.

During the year an extension of term for 2years to 29/7/2021 was sought and granted, whilst the tenement area was reduced from 83<sup>2</sup>km to 40km<sup>2</sup>.

Edrill have drilled 6 diamond drill holes to-date on the tenement, totalling 1709.7m.

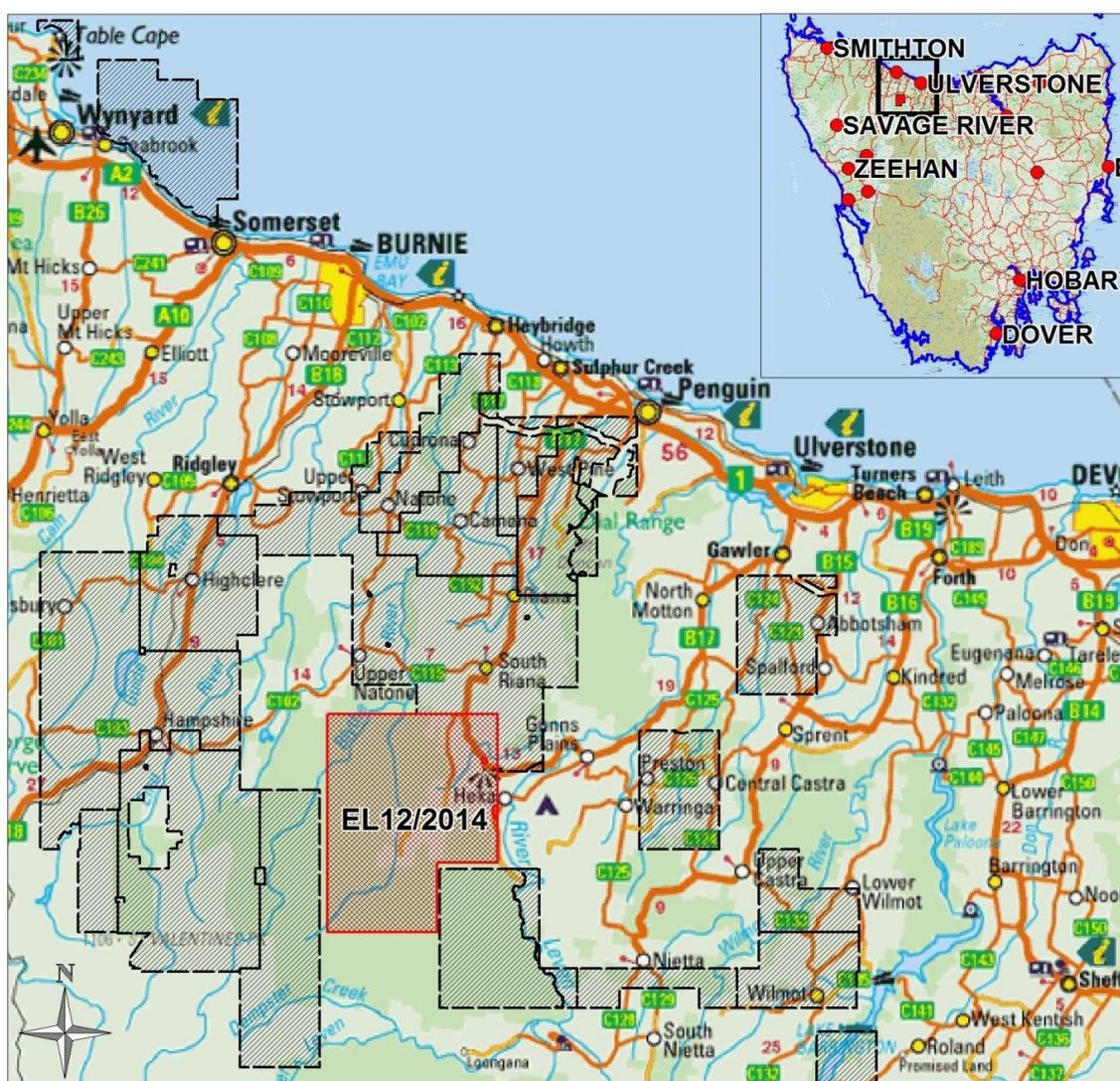


Figure 1: Location of Loyetea EL12/2014.

## Review of Previous Work

Previous work undertaken prior to the granting of Loyetea EL12/2014 is detailed in Murphy and Bates (2009) and Hansen (2014). This report partly re-iterates these details, adding information pertinent to the current investigation. Significant geophysics of note is the Comalco Redwater Creek IP and Bass Metals commissioned VTEM survey extending across, as well as north and south of the tenement.

### Comalco – Shell 1977 - 1981

Weste (1979) reported rock chip and auger sampling, with Sn to 490ppm and 1500ppm W in the latter. Comalco undertook grid based ground magnetics and IP in the Redwater Creek area.

Comalco drilled five diamond holes at Loyetea (RED1-5; see Figure 10) exploring for F, Sn & W. Comment and results follow:-

In RED1, analysis for Sn reached 150ppm and W reached 55ppm. Zn to 700ppm was returned. No other appreciable results were returned. There was poor core recovery over parts of the drill hole. The upper portion of the hole was logged as Tertiary breccias, whereas reported strained fabrics in clays and magnetite pebbles enables re-interpretation of these rocks correlating with the Puffers Creek / Loyetea Road fault zone.

Analysis in RED2 was more encouraging with Sn reaching 430ppm and W 760ppm. Zinc commonly hovers around 0.1% in most samples. Re-interpretation as largely faulted in the upper portion of the hole is warranted. Closer to the granite at depth is what reads as faulted but possibly near insitu magnetite then calc-silicate altered skarn. Notably the sediments adjacent to the granite in the Loyetea Road section are missing.

RED3 drilled Tertiary Basalts with basal deep lead deposits, over highly weathered granite. The granite base is faulted and 2m of limestone at the end of hole may be a fault clasts(?). Hole terminated in limestone. No sampling was undertaken but subsequent samples reported by Banwell (1982) were very low for Sn, W, Cu, Pb and Zn. Banwell (1982) notes that this hole was terminated early, prior to intersecting the magnetic anomaly on 6100N. RED5 tested the magnetic anomaly missed by RED3.

Banwell (TCR82\_1784) reports further investigation of the Redwater Creek and Laurel Creek West prospects. Included further gridding extending south on the Redwater Creek Grid, but no soil sampling was undertaken due to extensive Tertiary basalt cover. RED4 testing an IP chargeability anomaly, was extensively sampled top to bottom of hole and returned nothing anomalous; Sn max 40ppm. No Fe analysis were undertaken. The basal 75m of this 349.6m hole possibly drilled down a fault.

Significant analysis from RED5 include 450ppm Sn, 150ppm W, 450ppm Zn, 0.23pm Au, 230ppm Bi and 31.8% Fe from magnetite skarn (167.8 to 168.2m). Fe values ranged from mostly 5 to 11, peaking at 34.4%. RED5 had a significant swing in azimuth toward holes end (261 to 283), which may have been magnetite influenced. It's unclear if RED4 & 5 surveys are reported as true or magnetic north; actual drill logs are scantily reported.

Soil geochemistry was undertaken at Laurel Creek and Laurel Creek West with analysis for Cu, Pb & Zn. Ground magnetic at Laurel Creek West revealed a narrow anomaly targeted by drill hole PD1. This work is yet to be assessed.

### Jervois Mining 1997

Jervois drilled 4 RC holes for 378m with a best return of 20m @ 0.17% Zn from RW4. Drilling was problematic with high water flows, clay zones and cavities. Significant sample contamination was reported. At the Pilbeam Road Prospect, a target below and slightly north of RW3 was suggested to follow up anomalous Zn. RW1 returned little basemetal or Sn and W.

### Edrill Pty. Ltd.

Edrill have drilled 4 diamond drill holes (totalling 1360.9m) and undertaken ground magnetics over the area totalling ~23line km, prior to the 2020 annual reporting year. Historic drilling data was digitised and incorporated with available GIS data to assist with further prospect and regional interpretation. Only cursory field geology was undertaken.

Drill hole LOY15-001 (EOH 500m) targeted a ~250m deep VTEM conductor, identified by Bass Metals (Murphy and Bates, 2009) as a potential copper rich skarn. No significant mineralisation was encountered (No. Analytical Samples = 6), however weak skarnification and calc-silicate alteration was evident immediately beneath the targeted 250m deep zone (~265 to 290m) at the down dip end of the modelled conductor.

Drill hole LOY16-002 (EOH 169.6m) targeted a chargeability anomaly, ground magnetic high and rock chip of >50% Fe, including minor Sn (97ppm) and Zn (909ppm). Minor disseminated pyrrhotite (locally 2%) associated with weak pervasive silicification corresponded roughly with the IP chargeability anomaly at surface. No significant analysis were returned.

Hole_ID	From (m)	To (m)	Interval (m)	Sn_ppm	Zn_ppm
LOY15-001	399.8	400.8	1	0	547
LOY16-002	7.6	8.6	1	26	1220
LOY19-004			12	166	436
RED1	58.29	60.7	2.41	108	664
RED2	2	6	4	110	500
RED2	25.7	38.8	13.1	216	1152
RW-1	68	72	4	8	674
RW-1	118	120	2	0	784
RW-2	75	76	1	18	1320
RW-3	16	20	4	25	538
RW-3	24	28	4	10	762
RW-3	52	72	20	14	1702
RW-4	26	38	12	24	962
RW-4	46	54	8	12	924

Table 1: Significant intervals in drill holes to 2020 with 500ppm Zn cut off. Note Edrill's LOY15-001 and LOY16-002 were only partially sampled.

Drill hole LOY18-003 (EOH 353.3m) targeted a magnetic high and VTEM anomaly with no significant mineralisation intersected, although carbonate segregations and vein alteration was increasing towards end of hole. No significant analyses were returned from 3 samples.

Drill hole LOY19-004 (EOH 338m) targeting magnetite, Sn, W and base metal mineralisation was completed at Redwater Creek on 25/2/2019 utilising EDGI grant government co funding. LOY19-004 returned a significant granite contact magnetite-bearing skarn interval of 12m @ 22.76% Fe, 436ppm Zn & 166ppm Sn from 115.2m, including 7m @ 29.9% Fe & 631ppm Zn. The peak Fe analysis was 44.6%.

Cursory drill core logging (also including RED1 to 3), was undertaken. The apparent basin folded pattern interpretation was further substantiated with orientated drill core structure measurements from LOY19-004. Interpretation highlights exploration potential for granite proximal fold axial skarn targets, possibly located within the Transition Beds between the Gordon Group limestone and Moina Sandstone equivalents.

## Geology

Cambrian aged Tyndall Group volcanics representing the top of the Mount Read Volcanics (MRV) outcrop in the southern and central NE portions of EL12/2014. Overlying is an apparently complete sequence of Cambro-Ordovician Owen Group siliciclastics extending up to Moina Sandstone correlates, overlain by Gordon Limestone. The Husetop Granite which extensively covers the central and NW portion of the tenement belongs to a suite of tin bearing I and S type granitoids of Middle Devonian to Early Carboniferous age. Potential exists for granite related greisen and magnetite (+/-Sn – W) skarn mineralisation within the Gordon Limestone. Tertiary basalt outcrops within a NE aligned corridor, obscuring the potentially mineralised granite contact in the Redwater Creek Prospect area. The geology of the Loyetea Tenement Area is shown in Figure 2.

Known geology and interpretation indicates that the Loyetea area is structurally complex. A NE trending lineament along the south eastern Husetop Granite margin is interpreted as having significant influence upon patterns of faulting and folding in the area. Key is the development of a structural intersection in the Redwater Creek / Peak Hill area, where a NW aligned fault trending through the Loyetea Peak area intersects the NE trending lineament and deflects to a major NNW aligned fault zone passing into the granite to the north. Dextral fault offsets are apparent.

Interpretation suggests the magnetite mineralisation in the Redwater Creek to Peak Hill area is located at a structural flexure where intersecting NW and NNW faulting coincides with an inferred NE trending lineament along the south eastern Husetop Granite margin, forming a triple point junction. The Lavell Fault identified in the Loyetea Road vicinity may in part represent a linking damage zone within this dextral strike slip fault regime, with some strain taken up on granite margin parallel NE aligned faulting. A basin fold within the Gordon and Owen groups likely developed in response to at least two deformations, predating extensive late stage brittle faulting of likely Tertiary age which is clearly evident in drill core.

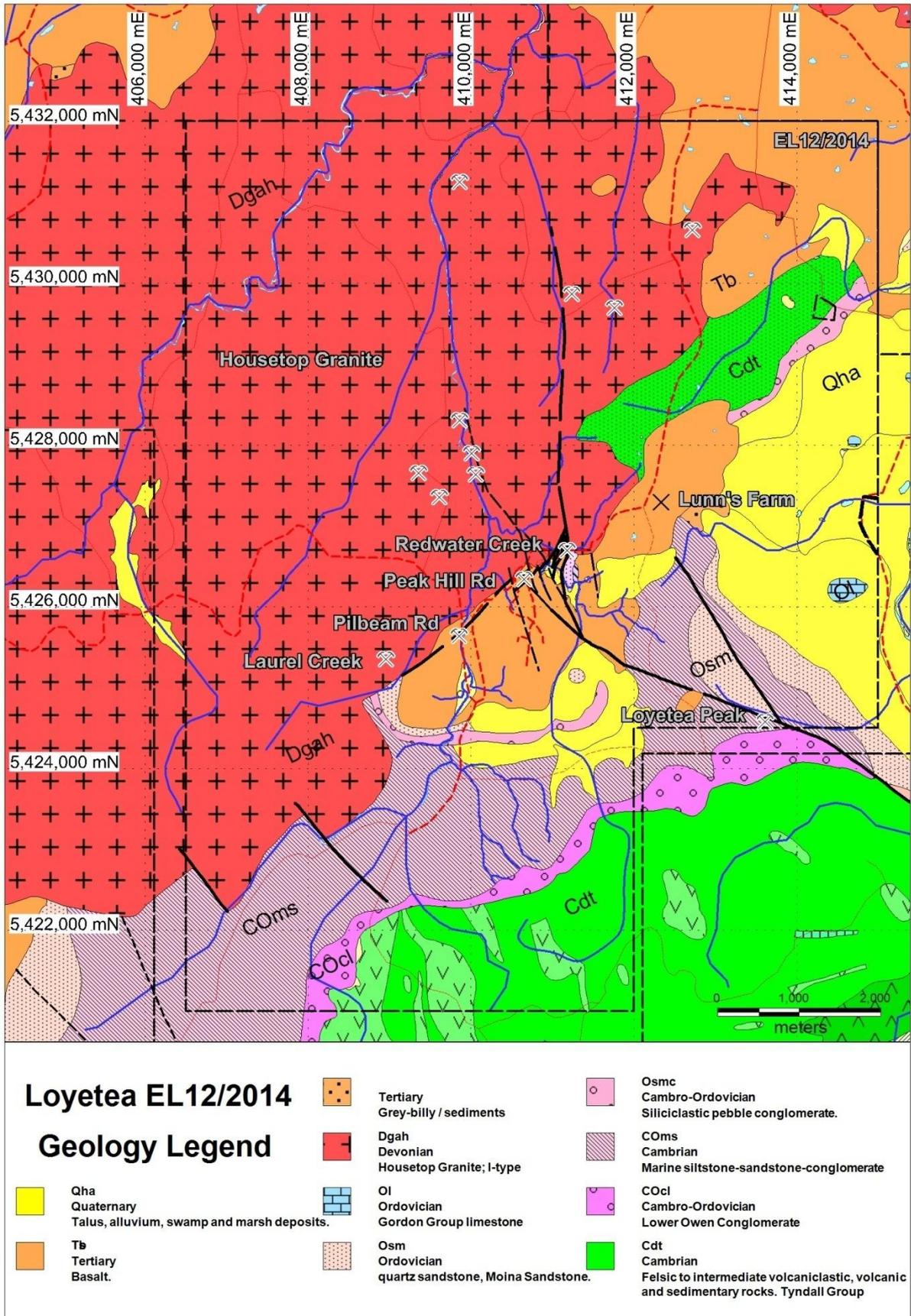


Figure 2: Geology of the Loyetea area highlighting key prospects (Geology modified from 1:25,000 Mineral Resources Tasmania digital geology).

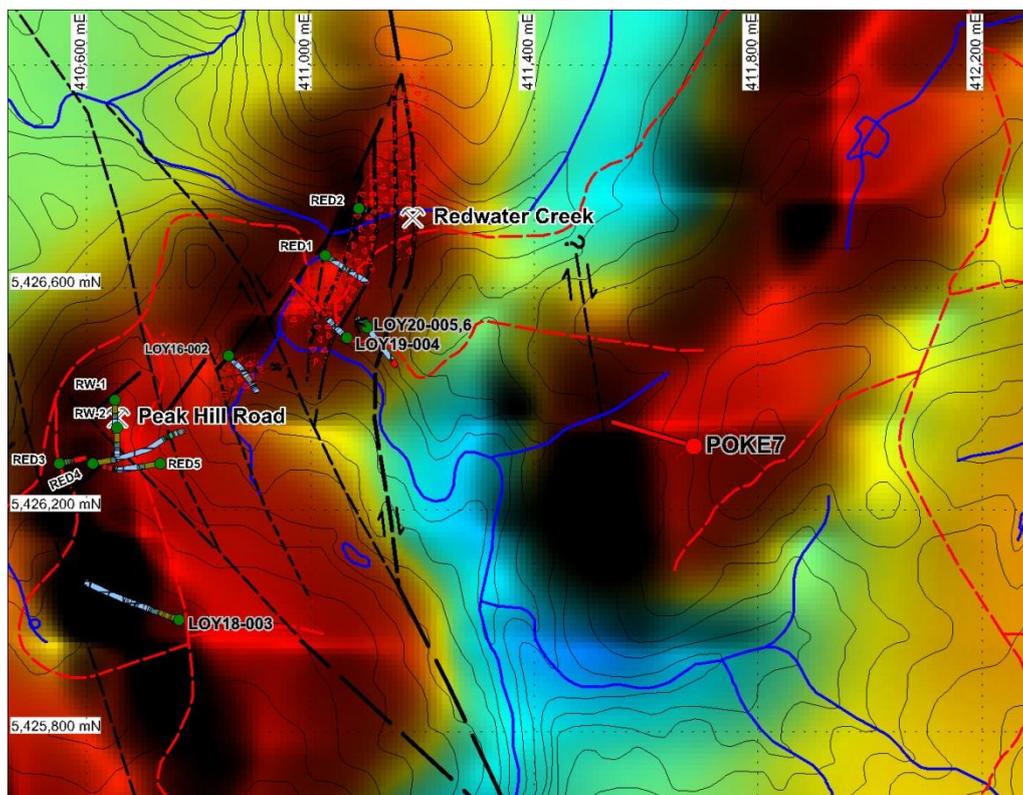


Figure 3: Loyetea location (GDA94) of drill holes (including planned drill hole POKE7) with surface projected geology over known surface magnetite distribution (brown), interpreted structure and airborne VTEM survey Total Magnetic Intensity grid.

## Work Conducted

Edrill completed two drill holes totalling 348.8m on EL12/2014 during the tenure year to 29/7/2020 (Table 1 & Figure 3). Drilling commenced in late April 2020 and took approximately 3weeks.

The author's participation this tenure year only includes monitoring progress with report and data collation. Recent drill holes have not been geologically logged, in part due to COVID pandemic related travel restrictions. Appended digital data is listed in EL122014\_202007\_04\_FileListing.xls.

No surface sampling was undertaken during the tenure year.

Hole_ID	East GDA94	North GDA94	RL	Azimuth	Dip	Depth	Date Commenced	Date Completed
LOY20-005	411099	5426532	403.8	309.7	-81.69	170	30/04/2020	8/05/2020
LOY20-006	411102	5426529	403.8	144.66	-59.99	178.8	11/05/2020	21/05/2020

Table 2: Drill Collar details 2020

Recent drill holes LOY20-005 (EOH 170m) and LOY20-006 (EOH 178.8m; Figure 2) have not been geologically investigated in person by the author. LOY20-005 apparently intersected mostly limestone with several metres of magnetite and granite around 110m, beyond which further limestone extended to granite at depth. The up hole granite is possibly a dyke apophysis or fault offset margin of the main Husetop granite.

A strongly mixed zone, comprising siltstone, sandstone, conglomerate, granite and fluorite mineralisation, representing an extensive inferred fault was intersected in LOY20-006. This hole tested an area where considerable enigmatic geological complexity was apparent at surface; similarly including a mix of Ordovician sandstone and siltstone, as well as Devonian granite and Tertiary basalt and related sediments.

These recent drill holes extend the known granite to the east, as a sub surface faulted shelf-like form.

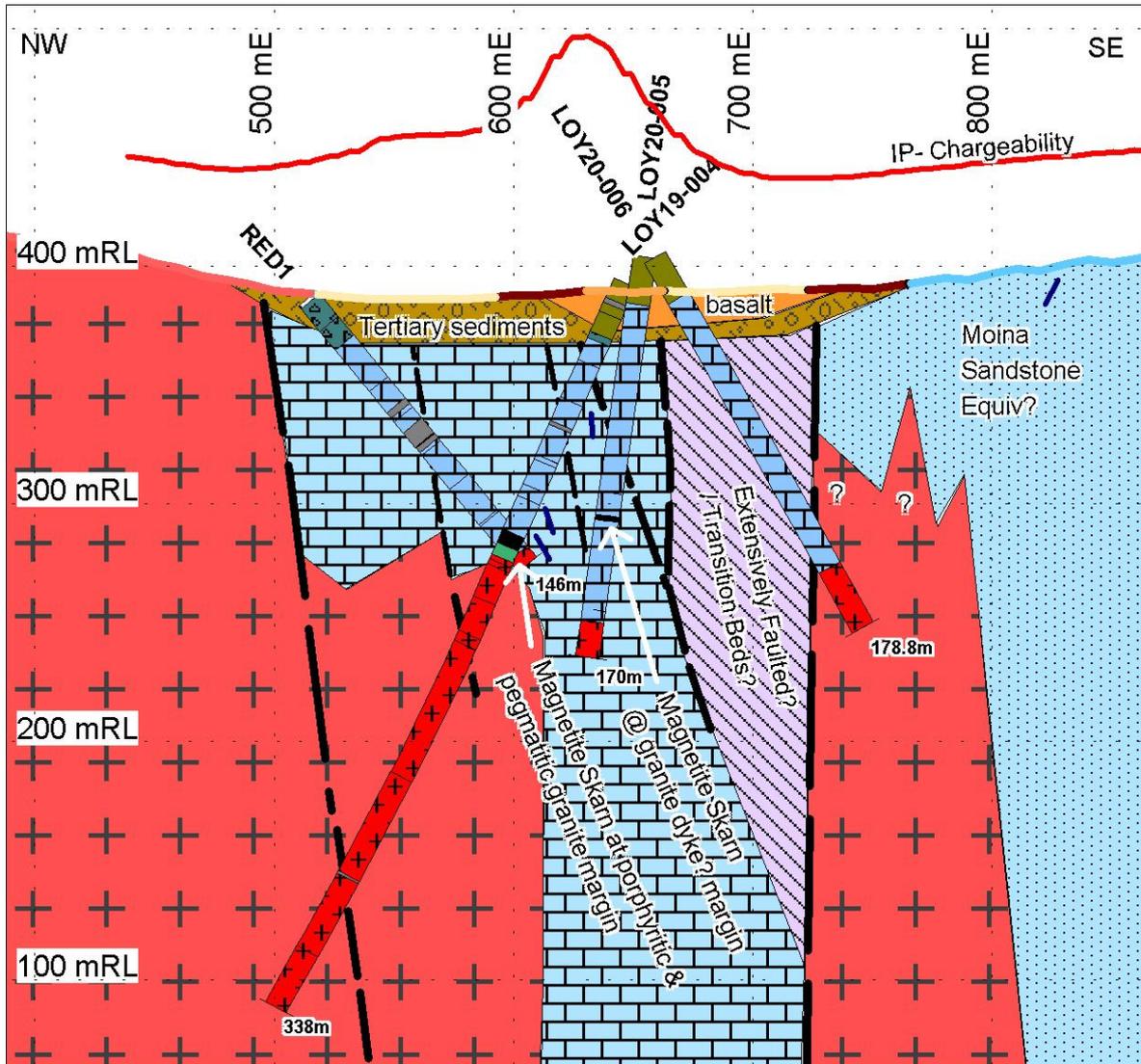


Figure 2: Section aligned NW-SE displaying LOY20-005 & 6 drill holes with basic geological interpretation (NB: Interpretation is not updated from 2019 as yet; holes await detailed logging) and chargeability (red) trace at surface. Note also the broad 150m section envelope to incorporate RED1.

## Environment

LOY20-005 & 6 were drilled from an existing track on private property with land owner and MRT approval. All work was undertaken in accordance with the MRT Mineral Exploration Code of Practice.

All equipment was washed down prior to mobilisation to minimise the threat of phytophthora infection. The drill rig was a track mounted UDR 200 D.

Minimal drill pad clearing and earthworks was required, since drill pads were located on existing track / clearings. Water required for drilling was sourced from the adjacent creek and pumped to the drill site using 2 inch poly pipe; removed after the program. Drilling return waters were banded to catch drill cuttings before allowing the waters to disperse away from the rig.

Fuels were stored in appropriate containers within a designated bund area and fuel-spill kits will be kept on-site. Firefighting equipment was kept on-site wherever fuel was stored or mechanical and electrical equipment was being used.

On completion of the program, the drill holes were capped and buried. The drill sump was removed and waste drill cuttings raked out and mixed with top soil. Drill core and waste was transported from the licence on a daily basis and on completion of works. All rubbish was removed from sites on completion.

## Proposed Exploration

Key exploration targets are granite related Sn-W magnetite skarn, as well as skarn and vein Cu-Pb-Zn mineralisation.

Edrill propose an approximately 300m deep drill hole to assess an untested magnetic target to the east of recent drilling. This proposed hole is to be partly funded via a recently successful EDGI grant application. The target represents a potential dextral offset from Redwater Creek magnetite mineralisation (Figure 3 & 4). The proposed drill hole plans to test the width of a magnetic high and coincident elevated VTEM anomaly (Figure 5), whilst projecting towards an inferred fault (Figure 6); the later possibly projecting more NW from Redwater Creek, rather than as shown. Significant advances in structural understanding of the south eastern Housetop Granite margin is an expected outcome.

Salient features also summarised in Figure 7 include:-

- Peak of TMI, RTP and 1VD aeromagnetic anomaly and ground magnetic high
- Coincident VTEM conductors; moderate VTEM low frequency SF10 and weak SF15, as well as high frequency 34k anomalies.
- Resistivity low (/conductivity high) adjacent to target at IP survey eastern margin

A Tertiary basalt origin for the magnetic anomaly is a possible outcome, however cursory mapping in the area reveals Ordovician sediments of significant extent. MRT 1:250,000 geological mapping is supporting, indicating that quartz sandstone and conglomerate talus derived from Owen Group correlates overlies much of the immediate target area (Figure 4). Whilst, Tertiary basalt is mapped rimming the area, suggesting that the magnetic target is pre – Tertiary aged.

The drill collar area will be accessed via existing forestry tracks in this recently logged area (Figure 7). A UDR200D truck mounted rig will be utilized, with triple tube drilling planned to provide the best recovery through potentially faulted and broken ground. Drilling is expected to start before November 2020, when drill crew and time are available.

Hole ID	East MGA94 Zone 55	North MGA94 Zone 55	RL m	Azimuth	Dip	EOH
POKE7	411685	5426315	470	298	-60	300

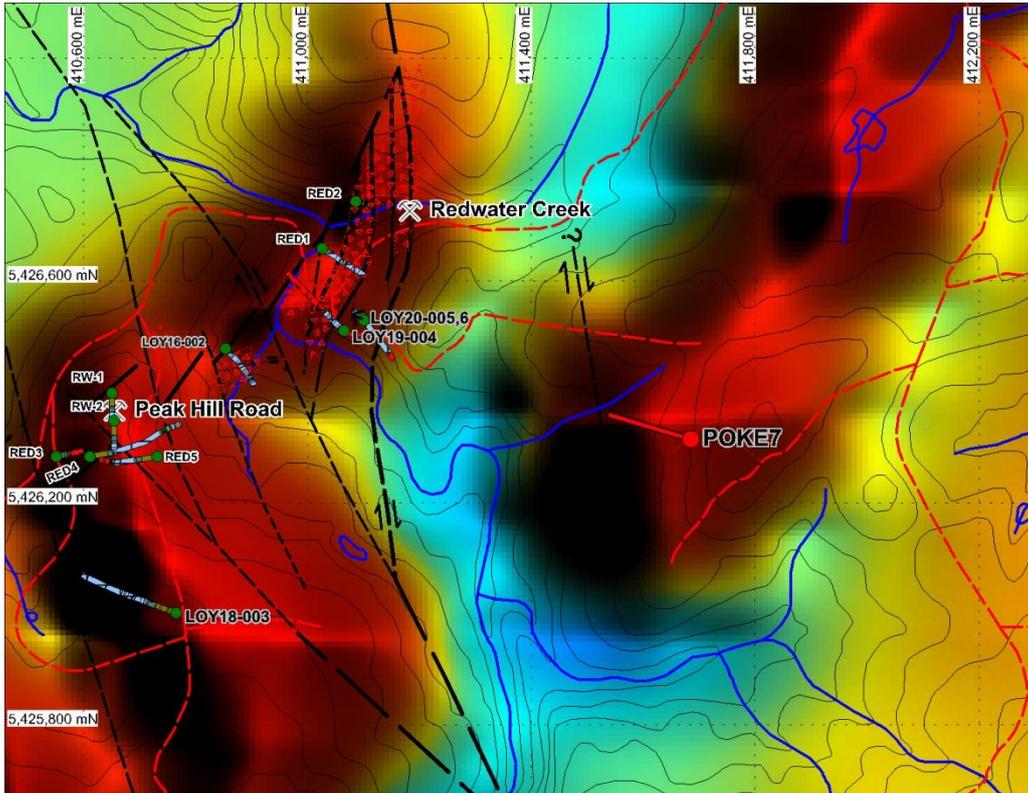


Figure 3: Planned drill hole POKE7 with known magnetite distribution (brown triangles) and interpreted structure over aeromagnetic TMI grid.

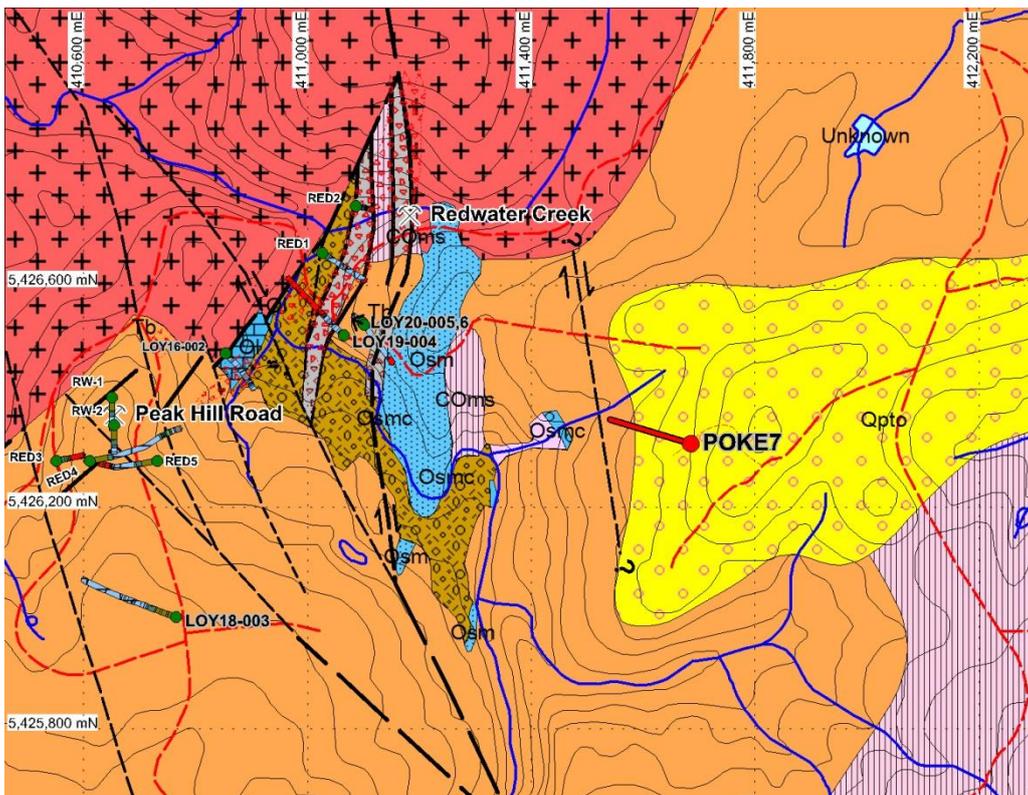


Figure 4: Planned drill hole POKE7 with modified MRT and in progress interpreted geology, known magnetite distribution (brown triangles) and interpreted structure. NB: highlights Qpto - quartz sandstone and conglomerate talus distribution in anomaly area.

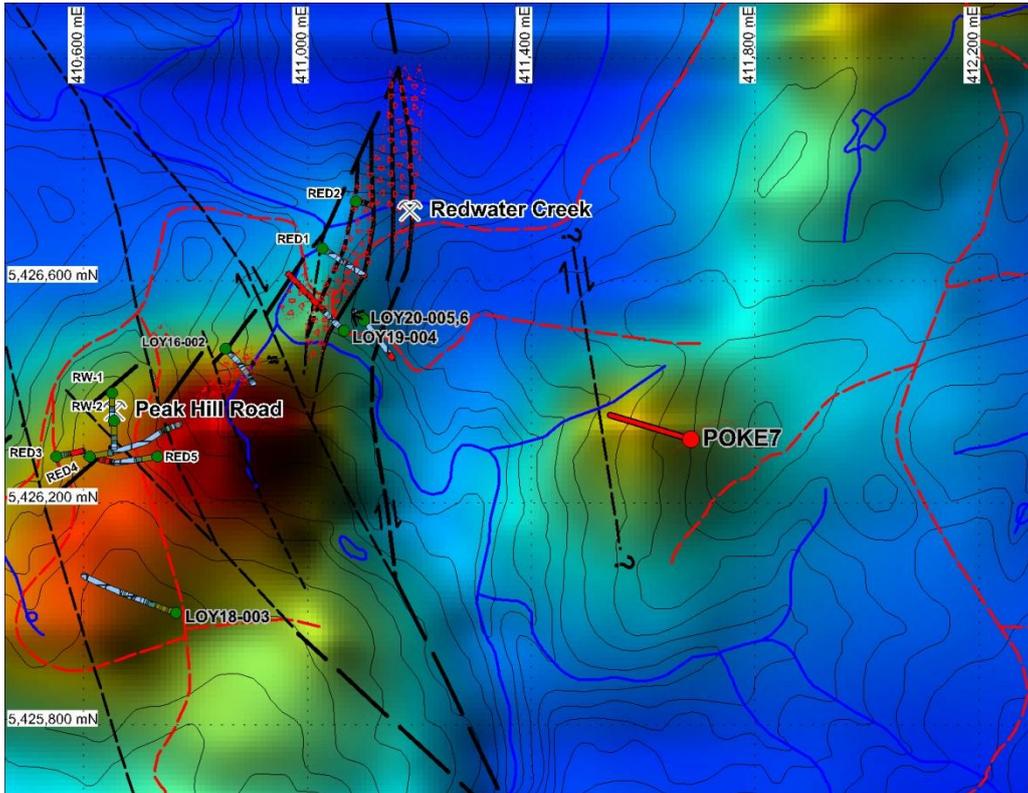


Figure 5: Planned drill hole POKE7 with known magnetite distribution (brown triangles) and interpreted structure over VTEM sf10 grid.

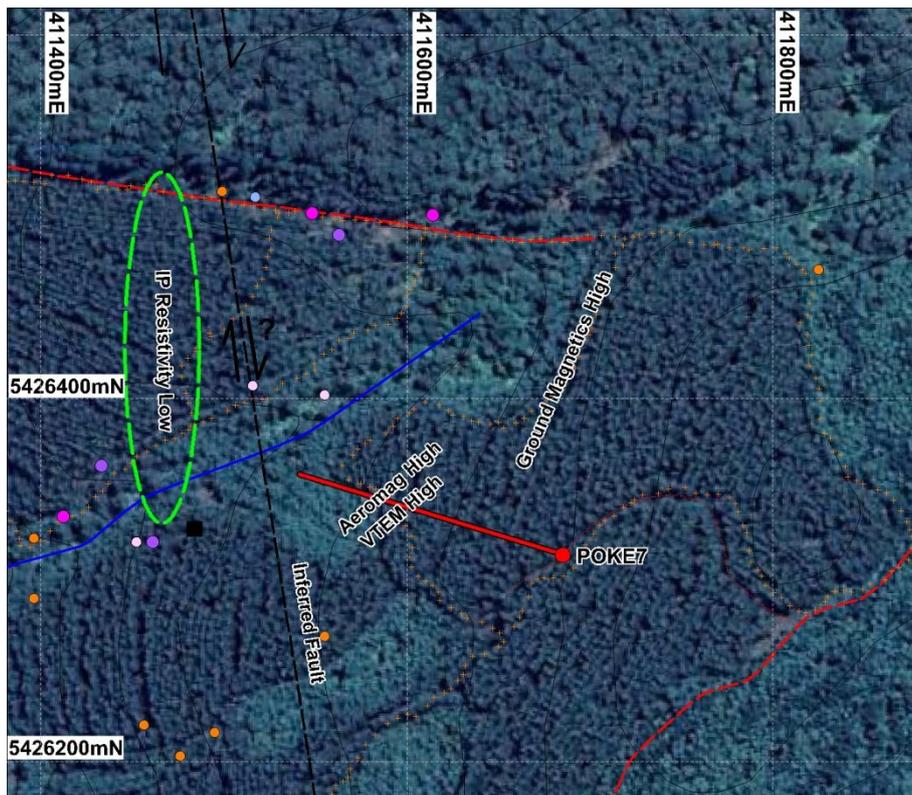


Figure 7: Proposed POKE7 drill hole with summary features over Google Earth image. Orange crosses highlight ground magnetic and forestry track distribution. Circles highlight known rock float and outcrop; pink = Ordovician & orange = Tertiary Basalt.

## Expenditure

<b>Expense Type</b>	<b>Cost</b>
1. Geoscience	
Geology	\$1,712
Geochemistry	
Geophysics	
Remote Sensing	
2. Drilling & Gridding	
Gridding	
Drilling	\$69,760
3. Land Access	
4. Rehabilitation	
5. Feasibility Studies	
6. Other	
7. Administration	
8. Total Exploration Costs	\$71,472

## References

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## Appendices

### Appendix 1:- Appended Digital data

Exploration Work Type	Filename	File format
<b>Report</b>	EL122014_202007_01_Report.pdf	<i>pdf</i>
<b>Drilling</b>		
	EL122014_202007_02_SL_1.xls	xls
	EL122014_202007_03_DS_1.xls	xls
<b>File Verification Listing</b> ( <i>this file</i> )	EL122014_202007_04_FileListing.xls	xls