

EL08/2014 Pipeline Track Investigation

For Grange Resources Ltd.

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Summary

Three days of field mapping was compiled with 2020 data, aiding re-interpretation and modification of 250k scale MRT digital geology. Improvements in geological understanding and boundary location were made with further mapping required to confidently link through to the 5411500mN line. More questions than answers are currently raised, but can be addressed with ongoing mapping in conjunction with LIDAR, magnetics and radiometrics interpretation.

The block of Permian sediments with a coarse conglomeratic basal unit was shown to consistently dip relatively shallowly to the east. The Permian block is apparently fault bounded on the eastern side and arguably partly unconformably overlapping and somewhat irregular to the west over the Proterozoic.

Little foliated possible intrusive mafic / gabbro(?) was identified coincident with an elevated aeromagnetic trend on the Logging Track. Similar fault bounded rock (/boudins?) on line 5411500mN lies on the same magnetic trend, with petrography from 2020 sampling demonstrating likely affinities to the West Wall Assemblage. Regardless of scant evidence for direct correlation with the West Wall Mine Sequence, the magnetic mafics occur within a sheared structural corridor forming a mappable unit extending north of the Savage River Mine.

An inferred NW trending faulted zone is identified crossing the Lac unit west of the newly defined magnetic mafics. This fault highlights the potential for further similar unrecognised faults. An example being an apparent dextral fault inferred to offset the magnetic mafics north of the tenement, which extends concealed beneath the Permian and emerges as a LIDAR lineament within the northeast of EL08/2014.

Silicification and sericitization were located enveloping a possible intrusive in upper Broderick Creek. Linkages cannot be directly drawn with Specimen Reef and the area of an epithermal textured petrographic sample.

A brief review of Specimen Reef (Au) suggests the related white mica and siderite/ankerite alteration may be reflected in Th radiometrics, which form NNW and NE striking trends. The intersection lineation between these inferred structures is a potential drill target for plunging Au ore shoots. Further assessment of economic potential in the eastern belt (Bowry Formation) is warranted to follow up potentially Au related Th radiometric anomalous zones such as near Davis Creek and the epithermal-like textures identified from petrography on 2020 mapping samples. Compilation of existing data is recommended prior to continued focused field work.

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Introduction

Following is a report on findings of field mapping along a disused logging track and environs in the north of EL08/2014, west of the Pipeline Road. The primary objective of field work was to increase geological knowledge within EL08/2014, adding to a 2020 mapping program which extended mapping north of MRT's recently produced Savage River 1:25,000 scale geological map sheet (Cumming et al., 2019). 2020 mapping investigated a 4.2km long E-W grid line (5411500mN) along with a traverse up McAuliffe Creek and investigation of an aeromagnetic anomaly in the EL's east. Data generated aims to duplicate MRT's geological mapping codes, allowing potential incorporation in MRT's next Donaldson map sheet.

Geological mapping of the logging track area (recut in 2020) was undertaken from the 27th to 29th of November 2023 during a period of drizzly damp weather. Consequently, some photo quality is poor. The track is currently in good condition being commonly moss covered and with minor recent tree falls. The 6 ½ kilometre length of the track to its junction with the 5411500mN line is readily traversed in approximately 2 hours, noting that the more recently cut section extends to approximately 6km. Tall canopy Myrtle forest covers much of the track with only one significant clearing noted in an area of tree fall.

Approximately 1.3 kilometres of the track extending east of the pipeline track is located immediately north of the tenement boundary but regardless was mapped for context, although the geology is only of minor interest considering it's mapped as Permian sediments and Tertiary basalt forming a plateau. Mapping at the western end of the track commenced with minor overlap with the 2020 work.

Outcrop is very sparse with float and occasional bulldozed rocky track margins being more common. The entire length of the track extending from the Pipeline Road to the 5411500 N line was mapped with minor excursions south of the track into the surrounding forest. In these areas outcrop and subcrop was largely absent, an exception being occasional rock in fallen tree bases. A traverse along upper Broderick Creek was also undertaken. Limited rock chip samples were collected for reference and/or select later (portable XRF and petrographic analysis) as warranted. Magnetic susceptibility in SI units was recorded for various fresher samples.

All locations were GPS located relative to the GDA94 datum. GPS accuracy was commonly ~10m but extended to 20m+ in areas of denser forest canopy and within the incised upper Broderick Creek traverse.

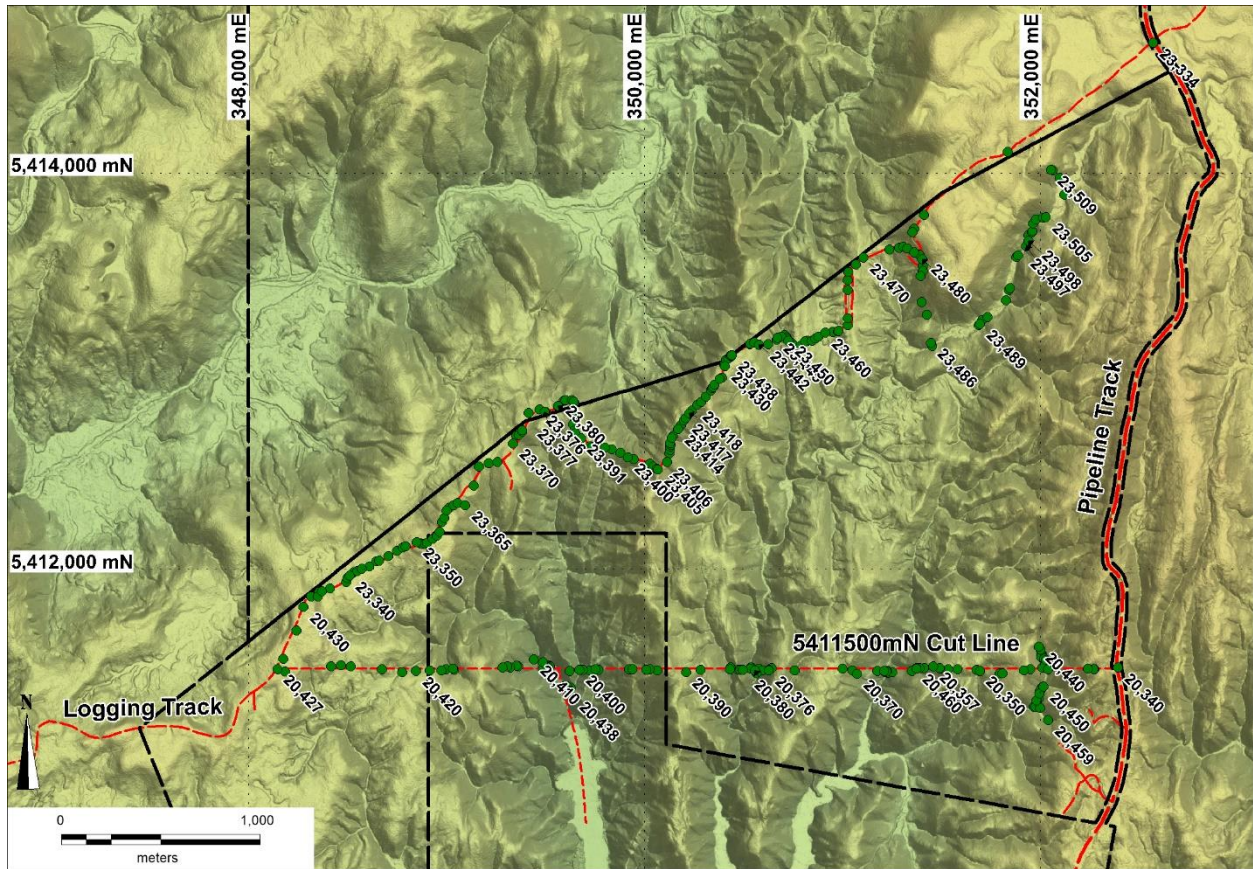


Figure 1: Field locations including those mentioned in text over LIDAR terrain model.

Work Conducted

Three days of field mapping was compiled with 2020 data, aiding re-interpretation and modification of 250k scale MRT digital geology, but with fewer polygon nodes except near well controlled boundaries. Rock codes assigned to field observations (see EL082014_202406_02_FieldLocationData.xlsx appended) and revised for 2020 data to match both MRT 250k and 25k scale digital Geology. Principal guides for geological interpretation were petrographic work undertaken on 2020 mapping samples (Bottrill, et al., 2021), Savage River 25k geology map (Cumming et al., 2019), WTRMP (2001) magnetics and radiometrics, the Specimen Creek 2011 aeromagnetic survey and LIDAR sourced through [The LIST](#). Evaluation of LIDAR enabled primary trends and lithological form to be interpreted in many cases. Interpretation would be greatly aided by incorporation of high definition LIDAR from over the Mine Lease.

Interpretations require additional mapping to quantify given that it's difficult to confidently assess and define geological mapping at the broad-brush stroke applied to-date. Review of previous historic geological mapping and geochemical sampling was not undertaken but would significantly aid further work.

Assigning 25k scale digital geology codes to field data was sometimes unclear, in part given that lithological definitions commonly reflect metamorphic grade but do not readily differentiate alteration overprints. Along the northeastern upper Broderick Creek traverse is an example of siliceous sericite schists which are superficially like Keith Schists (proximal to the east), whilst field observed mineralogy and coincident Th

radiometrics point to alteration of chloritic schist of the mapped Bowry Formation. Of minor note is the current 25k rock code field Lsv in the 250k digital geology being assigned differently in the 25k data as Lsb. Structure symbols and text were generated to guide geological interpretation (appended).

Obvious changes involving minimal work moving and snapping to existing nodes in the geology poly and line files have been made where appropriate. Other potentially significant but currently ill-defined changes to map interpretation have been compiled in interpretation files for geology lines and polygons, whilst not committing to significant work to adjust the digital files. These features whilst interpreted upon sound geological grounds, have been digitised in separate files and need further field evaluation to better quantify the geology. LIDAR proved to be a powerful aid to interpretation given the fine surface detail expressed, even allowing assessment of structure dips in some cases. Some minor geological boundary changes likely represent better GPS location compared to previous mapping.

Clear minor changes made to MRT's 250k digital geology presented in Figure 2 include:-

- Tertiary Basalt polygon in the west of the traverse. Partly guided by radiometrics.
- Tertiary basalt western margins of the eastern polygon. Partly guided by LIDAR.
- Permian eastern bounding fault shifted slightly east.
- Permian western margin modified to fit interpreted magnetic Lacw polygon.
- addition of Lacw NNW trending likely mafic intrusive zone; see interpretation layer
- 25k geology polygons extending units north of Savage River was not undertaken.

Additional provisional interpretive geology polygon and line layers portray inferred lithology subunits as potential additions to the geology subject to infill clarification, noting that lateral consistency of units is not expected, particularly given variation observed within the tectonic melange of the Savage River mine sequence area and the up to 1.5km distance between field traverses in the eastern Pipeline Track area. Consequently, boundaries for West Wall assemblage geology polygons are loosely defined and there's potential to better define polygons with infill mapping.

Pertinent geological observations follow:-

Tertiary

A Tertiary (or Quaternary) age is possible for poorly consolidated light brown clay with common angular milky quartz vein granules and minor schistose frags, as well as sparse rounded quartzite cobbles and black pelite at Field_ID 23441 (&23442; Figure 1). This several metre thick occurrence doesn't form a readily mappable unit, but clearly reflects erosion of proximal outcrop of Permian and Proterozoic lithologies.

Tertiary basalt was commonly covered by orange clays and observed as massive, rounded float boulders. LIDAR over known Tertiary Basalts exhibits a relatively bulbous smooth character with common speckly boulder texture at finer scale. Common creek orientations apparently don't penetrate this texture.

The Tertiary Basalt commonly corresponds to magnetic lows, however the base of the easternmost mapped Tertiary corresponds with elevated magnetics (Figure 4). It's possible that basal sediments/greybilly maybe magnetite clast bearing (Kanga potential?). Alternatively, a magnetic mafic unit could explain the elevated magnetics, as is evident on the western Permian sediment contact, described below.

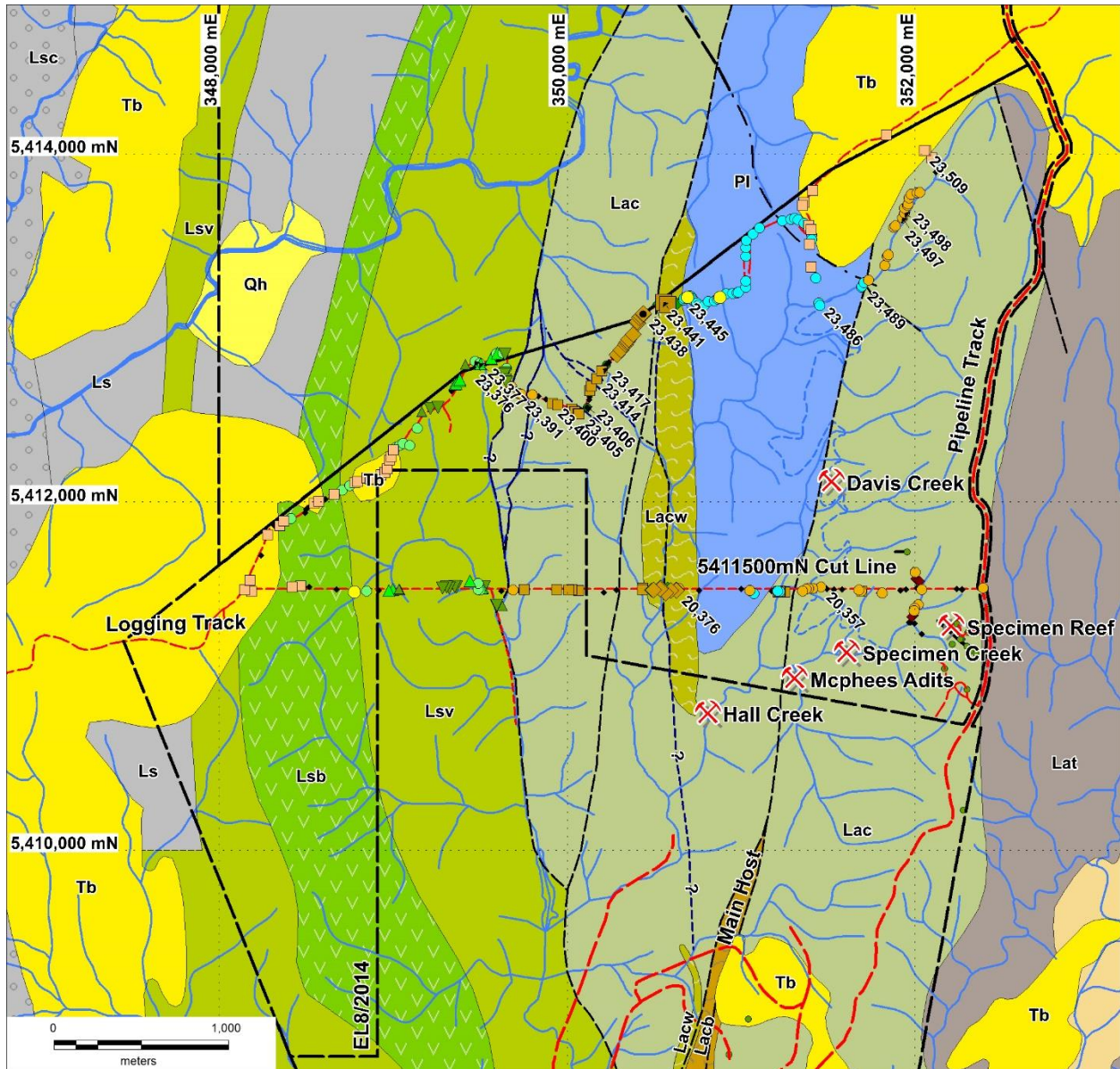


Figure 2: Interpreted 250k scale geology with field location geology matched to MRT's 1:25,000 Savage geological map sheet with historic drill holes (green dots) and prospects. Showing Field locations from text. See Figure 3 for Legend.

Permian

Permian sedimentary beds were shown to consistently dip relatively shallowly to the east (25 to 30°; Figure 2). The Permian stratigraphy from west to east comprises a coarse base (Photo 1) followed by thin bedded siltstone then more massive granule sandstone above, extending up stratigraphy to Tertiary basalt. The Permian block is apparently fault bounded on the eastern side and arguably partly unconformably onlapping and somewhat irregular to the west over the Proterozoic.

The Permian geology is likely significantly more dissected than is currently represented in geologically mapping. It's plateau forming nature and relatively incised (LIDAR) drainage patterns in conjunction with aeromagnetics and radiometrics are considerations for interpreting new boundaries. The coarser (basal)

stratigraphy on the western side of the mapped Permian sediments suggest this contact could be conformable and erosional. Minor perturbations are not accounted for in the current interpretation, but can be modified with further mapping and interpretation. Characterisation of the western most contact is problematic and likely more irregular than mapped.

The eastern contact is evidently faulted with the western Permian sediment block down thrown relative to the Proterozoic to the east. Foliation proximal to the fault dips moderate to steeply east suggesting faulting was at least in part of west directed reverse movement. The observed 1cm spaced foliation within the sediments at the eastern upper Broderick Creek contact (Field_ID's 23488 & 23489; Photo 2) is unusual within Permian sediments of Tasmania and adds to the protracted deformational history of the Arthur Lineament with some faulting active in / post Permian times.

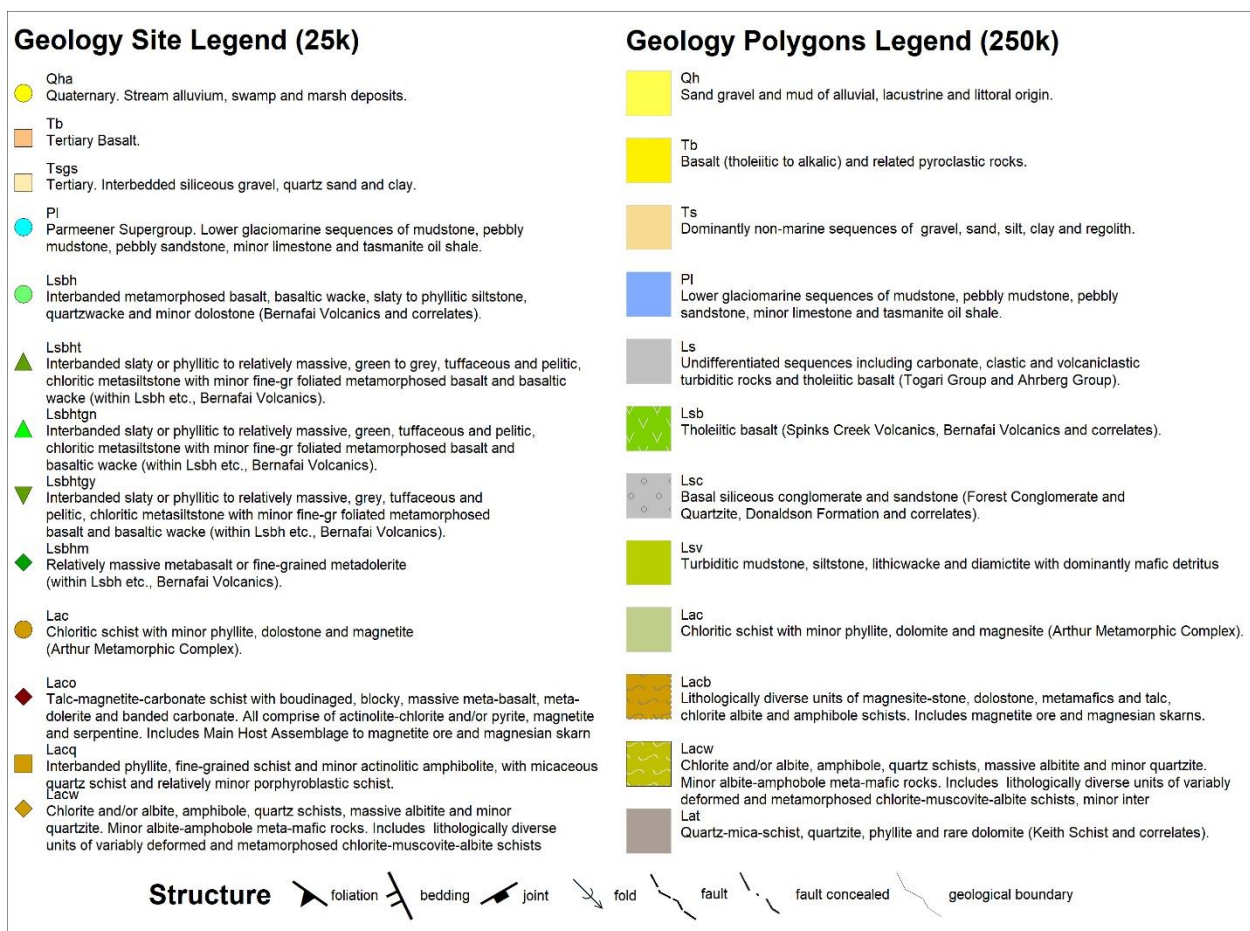


Figure 3: Geological map legend for figures in text. 25k assigned rock codes for filed locations on left and 250k geology polygons right.



Photo 1: Permian moderately open framework granule-cobble conglomerate with silty matrix (Field_ID 23445).

Proterozoic

Westernmost on the logging track traverse, the Proterozoic dominantly mafic lithology (Lsb) was sparsely observed with grey and green pelite (Lsv/Lsbht; Photo 3) as float, subcrop and occasional outcrop being more common to the east. The later coincides with elevated magnetics, being particularly apparent when compared to 1VD of WTRMP 2001 aeromagnetics (Figure 4). Notably the 250k mapped polygon margin of Lsb diverges from the elevated aeromagnetics (Figure 4), leaving scope to redefine boundaries between the mapped track and 5411500mN line. A lack of readily defined structure in LIDAR for this area suggests the contact could be in part conformable, whereas it's mapped as faulted further south on the Savage River 25k geological map sheet.

Dark grey cherts (Lsv) whilst locally dominant are observed interbedded with and grading to light green pelite dominant; as is similarly observed to the south on line 541100N. The grey and green pelites (250k Lsv) distribution was mapped further via subsetting their collective 25k Lsbht code into new codes **Lsbhtgy** and **Lsbhtgn**. Approximate interpretation polygons are shown in Figure 2 and whilst these lithological variations possibly form mappable units, no direct link can be confidently inferred without infill mapping (Figure 2). Repeated lithology patterns are observed on the eastern side of this package on both 54100500mN and the 2023 track traverse. Combining this observation with a pronounced ridge line divide trend suggests folding maybe responsible for the observed trend which doesn't fit with the expected NE

Arthur lineament trend. These are weak lines of evidence but regardless the potential for folding is credible and should be considered during further investigation.

A discrepancy in the mapped eastern faulted contact between Lac and Lsv near 349680mE, 5412650mN is elucidated with LIDAR interpretation suggesting anastomosing fault splays may exist at the eastern contact of the mafic Lsv (Figure 2).



Photo 2: Fault proximal foliation in Permian granule siltstone (Field_ID 23489).



Photo 3: Examples of dark grey and light green pelitic schist (Field_ID 23384). Geol 25k Code = Lsbht



Photo 4: Muscovite - chlorite schist (Field_ID 23414). Geol 25k Code = Lac

Magnetic Mafics

Little to un-foliated feldspar-phyrlic mafic (/gabbro?; eg Photo 5) verging to lesser chlorite schist with increasing foliation is mapped around 350530mE, 5413140mN (Figure 2) and corresponds with a weak 1VD N-S linear aeromagnetics in both WTRMP2001 and Specimen Creek Magnetics. Weakly supporting is a 0.5SI magnetic susceptibility reading from outcrop at Field_ID 23438. The anomaly apparently attenuates north of the track traverse, where it's inferred to dip/pass at shallow depths beneath Permian sediments. Further south where the aeromagnetic anomaly crosses the 5411500mN line east of Broderick Creek, 2020 mapping describes similar weakly foliated and feldspar phenocryst bearing medium grained mafics, as well as strongly foliated and locally brecciated chloritic schist. Further elucidating, sample RO24523 from this area is described as a probable mylonitic fault zone in mixed mafic-siliceous sediments bearing variably and highly deformed metamafic as well as quartz-chlorite rock with fault gouge like matrix, petrographically resembling parts of the Western Wall assemblage, but with geochemical similarity to the Arberg Group (Bottrill et al., 2021). The described textures fit with interpreted faulting, dislocating and juxtaposing the magnetic mafic unit (Figure 2).

Interestingly, the 1VD magnetics coincident with sheared massive mafic / gabbro bearing trend extends south to meet the northern extent of the 1:250k scale mapped Lacb (/25k Laco) unit, equivalent to the Main Host Assemblage to Savage River magnetite ore (Figure 4). The massive mafic / gabbro bodies mapped possibly represent late intrusions now forming "boudinaged, blocky, massive meta-basalt and meta-dolerite" within a less altered and mineralised shear zone similar to within the Western Banded schists and **Laco** 25k equivalent; the later described as "Talc-magnetite-carbonate schist with boudinaged, blocky, massive meta-basalt, meta-dolerite and banded carbonate...". The main sheared, altered and mineralised mine corridor is mapped trending NNE, whilst the lithologically similar mafic /gabbro trend possibly represent a West Wall Assemblage splay to the north; perhaps hosting / intruded by massive mafics (MDO) with foliated margins similar to those in Centre Pit drilling.

Lithology assignment for the magnetic massive chloritic mafic rocks is Lac (250k), with the matching 1:25k scale lithology code being less uncertain. The magnetic massive mafic rocks are tentatively assigned the 1:25k lithology code **Lacw**, given continuity of magnetics and similarities to the 1:25k lithological description (Chlorite and/or albite, amphibole, quartz schists, massive albitite and minor quartzite. Minor albite-amphibole meta-mafic rocks. Includes lithologically diverse units of variably deformed and metamorphosed chlorite-muscovite-albite schists; Cumming et al., 2019) and Western Wall assemblage noted by Bottrill (2021). As noted above, MRT mapped Lacw proximal to the west of Centre Pit possibly includes equivalents to massive mafic intrusions (**MDO**) recently identified and modelled by Alexey Lygin in that area. An alternate potential matching code corresponding to the interpreted more coherent possibly intrusive lithology is Lsbhm, described in the MRT 1:25k geology legend as "relatively massive metabasalt or fine-grained metadolerite". Geochemical and/or age date fingerprinting is required to better define lithological association.

Notably Lacw – like foliated, iron oxidised and apparently non magnetic ch - schists with minor homogeneous / massive mafic was mapped proximal to the west of the Lacw defined magnetic mafic unit. Shearing on massive magnetic mafic margins (boudins?) is likely magnetite destructive.

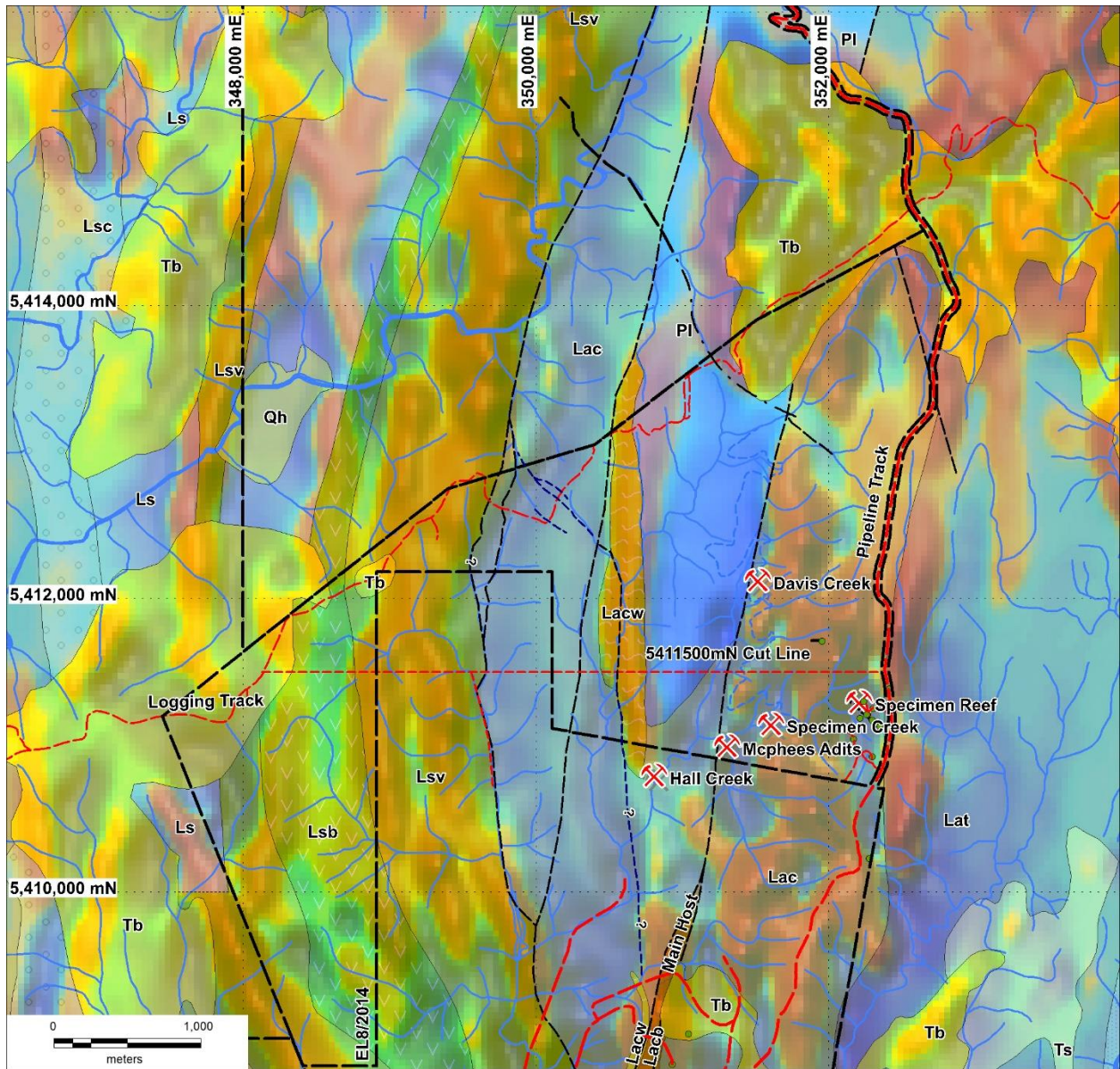


Figure 4: Showing mafic / gabbro (Lacw) magnetic unit trending towards Laco (Main Host Assemblage). Interpreted geology polygon transparency over NW sun angle WTRMP (2001) 1VD aeromagnetics.



Photo 5: Relatively massive weakly foliated medium grained relict mafic / gabbro? (Field_ID 23440). Geol
25k Code = Lacw

Alteration

Iron oxidation was relatively common within weathered schists. Locally flecks appeared to be after weathered sulphide (eg. Field ID 23371). Black Pyrolusite (MnO) was locally evident mostly as irregular and planar fracture fill.

Some examples of muscovitic siliceous schist possibly represent silica-sericite alteration, particularly given that some of these are mapped within geology polygons previously recognised as chloritic schist. The northeastern upper Broderick Creek traverse from Field_ID 23486 to 23509 reveals chlorite schist with increasing sericite alteration zoning through and extending beyond moderate intensity pervasive silica (Field_ID's 23497-98). On the eastern side of this zone was a fine grained weakly foliated, more massive, possibly intrusive(?) zone bearing a hint of feldspar (observed in poor light). The creek traverse could not be completed with thick scrub covering the relatively flat creek bed extending to EL8/2014's eastern boundary. The magnetic anomaly corresponding with this topographically recessive flat was not observed, whilst the observed alteration corresponds with weakly elevated NW trending Th radiometrics (Figure 5).

Evaluation of WTRMP (2001) radiometrics shows that the Specimen Reef gold occurrence is marked by weakly elevated Th. Similar Th zones are proximal to prospects at McPhees Adit, Davis Creek and a granite influenced epithermal textured sample (Figure 5). The later R024521 sample is described by Bottrill (etal., 2021) as exhibiting textures consistent with a post – dating relationship to the main Savage River mineralisation and deformation. A direct link between the epithermal textured petrographic sample at Field_ID 20376 (R024521; Bottrill, etal., 2021) and Specimen Reef cannot be demonstrated. This notable

sample from 2020 mapping lies on the western side of a magnetic neck point / dislocation; in a similar position to Specimen Reef, east of the magnetic high.

A brief review of Specimen Reef identifies several key characteristics. Specimen Reef is thought to be host by quartz carbonate veining related to a NE trending structure (The Donaldson Fault?; Turner 1999). A substantial alteration system characterised by white mica and siderite/ankerite is present at Specimen Reef" (Turner, 1999), which likely contribute to the Th radiometric anomalism evident over Specimen Reef (Figure 5).

Evaluation of Th radiometric trends suggests key potentially Au related structure orientations are NE and NNW striking (Figure 5). The intersection of these structures is a potential drill target for plunging ore shoots. Specimen Reef is inferred to plunge ~45degrees on NE strike (Turner 1999), however the attitude/dip of the NNE component is unclear. Crudely, considering the foliation parallel vein striking 321 / 75 SW dip at Field ID 20351 as representative of the NNW inferred extensional orientation, a potential intersection lineation of ~70plunge to 230 is resolved. Given the current paucity of data, further field work and structure analysis is needed to quantify the NNW orientation in particular.

NB: Th radiometrics needs to be interpreted with care in part given that Permian lithology and their derived down stream sediment as well as fresh exposures are commonly radiometrically elevated. Whereas areas of even forest cover with minimal alluvium are more favourable for comparison.

Structure

Structure readings are sparsely distributed. Several bedding readings within Permian rocks were consistently shallow east dipping. All recorded structure from the current mapping project is included in field data appended.

Central west on the logging track the location of a mapped MRT 250k fault is ambiguous and modified herein. The fault's mapped position is supported by a lineament in the LIDAR digital terrain model. However elevated magnetics and another LIDAR lineament conforming to the contact between pelite (Lsv) and oxidised mu-si-schist (Lac) supports moving the main fault further west; a fault splay is interpreted (Figure 6).

More convincing evidence of faulting is apparent on the spur to the east. Here a loosely defined and likely relatively broad NW aligned transverse structure zone, in part highlighted by drainage is inferred to cross the Lac unit between Field_ID's 23405 and 23417 (Figure 6). This inferred structure broadly separates siliceous - muscovite schist from more clearly relict muscovite - chlorite schist. Foliation in a faulted zone at field site 23405 (Photo 6) is NW orientated, dipping 60SW, in strike alignment with LIDAR features and at odds with the common regional N to NNE trend (eg. 175/68E @ 23421). Extending NE along the ridge in this area is a zone of quartz vein float crosscutting the NW aligned inferred structure zone, which possibly formed on a related extensional Reidel orientation. Poorly defined microfolds plunging 40S to 135TN at Field_ID 23406 are similarly aligned and possibly related to the NW striking faulted / sheared zone.

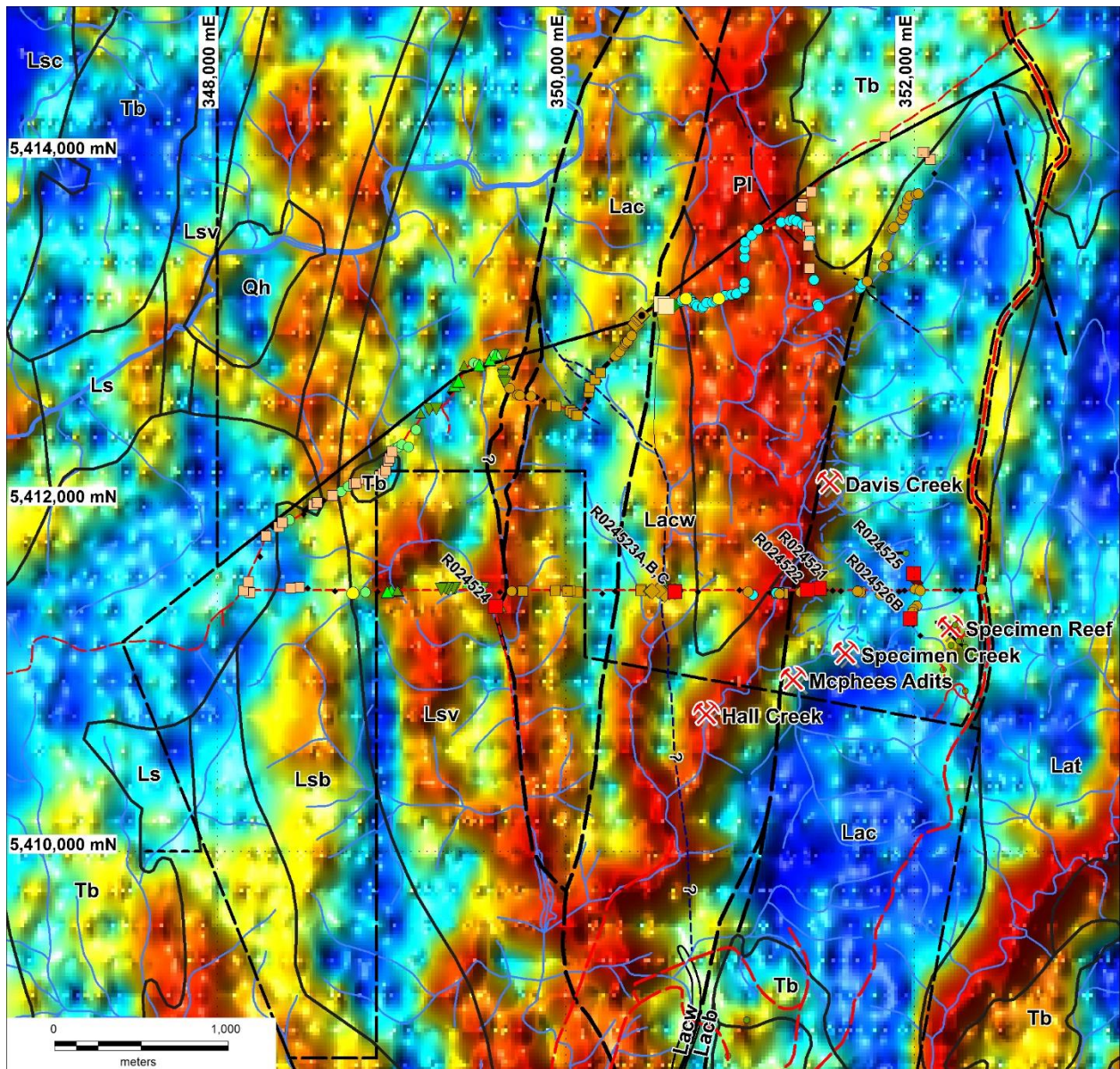


Figure 5: WTRMP (2001) Th Radiometrics grid overlain by geology lines, prospects and Petrology samples from Bottrill (etal., 2021).

The inferred fault zone defined above highlights the potential for further as yet unrecognised NW and NNW aligned faults. An apparent dextral fault is expressed by offset in magnetics within Lsv, north of EL08/2014. This NW aligned inferred fault extends concealed beneath the Permian, emerging as a LIDAR lineament within the NE of EL08/2014 (Figure 4). This inferred fault helps explain the enigmatic weak magnetic high extending parallel to the Permian – Tertiary basalt contact; the magnetic anomaly possibly representing buried mafic intrusive (Figure 4); an extension of Lacw?.

There is little evidence for the NNE trending fault crossing the Lac unit in the vicinity of 350300mE, 5431500mN in WTRMP (2001) and LIDAR grids. It remains mapped on the northern end of the 1:25,000 Savage River Geology map, but there are few other supporting features. Weak lineaments in the LIDAR are apparent, including a subtle feature marking the edge of the Lacw on the logging road traverse.

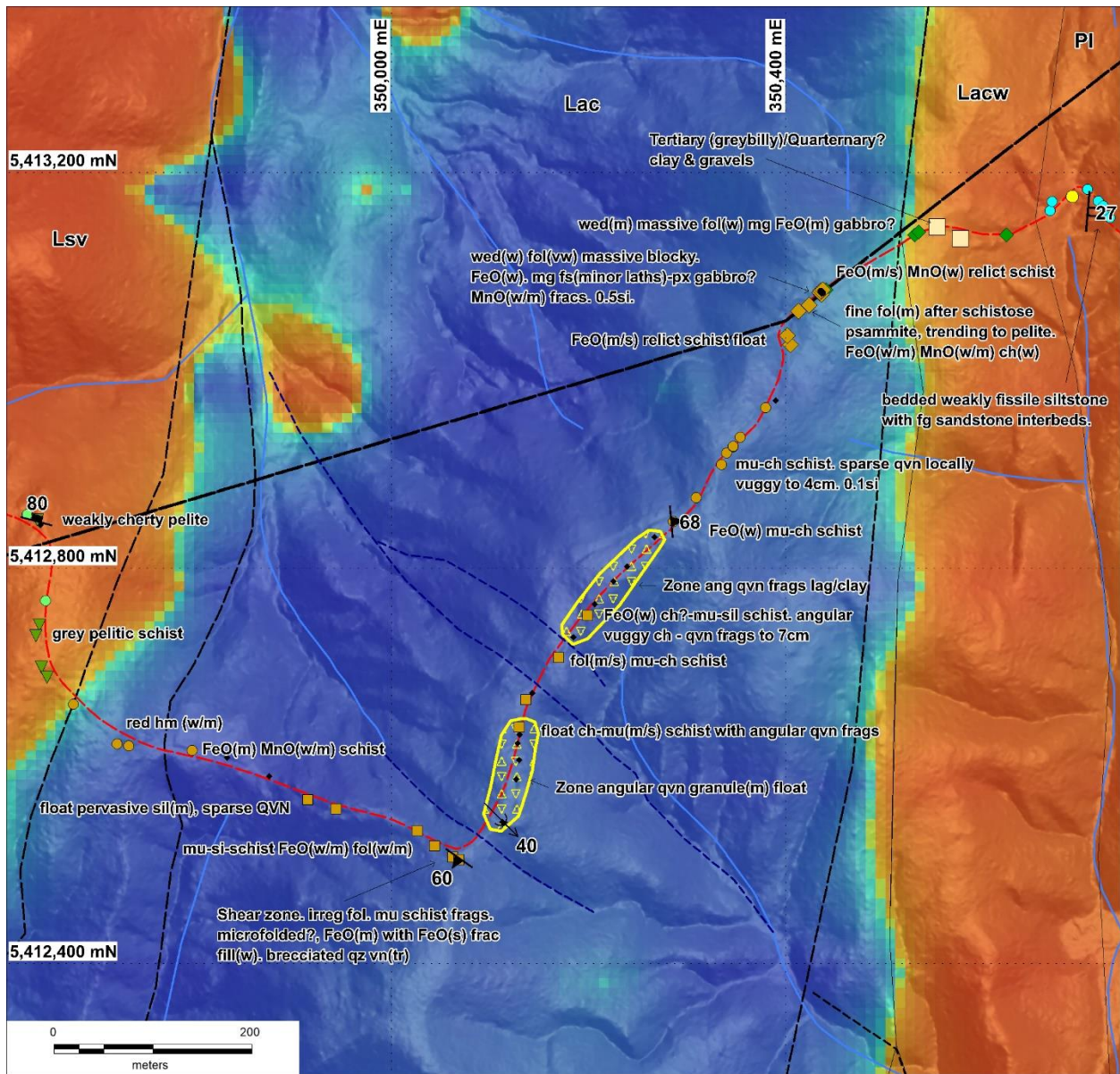


Figure 6: Interpretation for inferred NW structure aligned zone through Lac with modified MRT 1:250,000 (2020) digital geology and LIDAR transparency over 1VD WTRMP (2001) aeromagnetics. See Figure 3 for field data Legend



Photo 6: Oxidised faulted and sheared zone displaying irregular foliation with weakly developed microfolds and including fragments of muscovite schist and sparse angular/ brecciated quartz vein. Field_ID 23405.

Recommendations:-

Three priority samples from 2023 mapping for petrographic examination are listed in Table 1.

A compilation and assessment of historic sampling and geological work undertaken within the EL is required to guide further field work.

A comprehensive mapping exercise with a structure bias in the eastern Bowry Formation belt of EL8/2014 to investigate gold vein and breccia potential is warranted. High priority is investigation of reported epithermal like textures (Bottrill, et al., 2021) in the water race vicinity. Known prospects coincident with elevated Th radiometrics are a further priority, which would include investigation of unexplained gold anomalism in stream sediments and soils of the Davis Creek area reported in Turner (1999).

Mapping the northern boundary of the 25k Savage River sheet would improve continuity with EL08/2014 geological mapping. Interpretation there would be greatly aided by incorporation of high definition LIDAR from over the Mine Lease, which is currently absent from The LIST coverage. LIDAR interpretation should be further refined to capture inferred faults, strata and folds; noting that hints of various features are locally expressed.

Close spaced aeromagnetics would help resolve the geology of the western portion of EL8/2013 but is low priority given that magnetics coverage is likely adequate in the more economically important east; being covered by the Specimen Creek survey (ref).

Vein orientations in the Specimen Reef prospect are not assessed herein, however strike slip shear models should be considered. These can be evaluated via structural mapping and ensuring any drill holes are orientated with structures recorded.

Field ID	Field Number	East GDA	North GDA	Geology Description	Magsus (SI)	Sample Form	Sample ID	Sample Type2	Sampling Comments
23372	372	349364	5412679	pale gn. Very fine grained pelitic schist		float	320951	grab_rc	
23414	414	350170	5412710	gn ch(m) mu(w) fol(m/s) schist.		subcrop	320952	grab_rc	
23438	438	350440	5413081	wed(w) massive blocky. FeO(w). Medium grained fs(minor laths)-relict px gndmass. likely gabbro? MnO(w/m) on planar fracs. little foliated	0.5	subcrop	320953	comp_rc	thinsection and XRF; 25k Lacw or Lsbhm?
23445	445	350669	5413171	very poorly sorted granule-cobble sandstone. light gn matrix, appears to have weak fol? likely Permian. mod well consolidated = not Tertiary		outcrop	320954	grab_rc	
23494	494	351846	5413420	pale green sr?(w) ch?(w) fs phyrlic to weakly fine grained fs equigranular text. fol(w) schist? possible intrusive?. common regularly 5cm spaced joints 310/68w. weakly indurated more	0.25	outcrop	320955	comp_rc	thinsection; lithology & alteration characterisation
23495	495	351876	5413578	float sub angular with sub rounded edges boulder cream selvages on pale green sil(w/m) relict sr(w/m) schist. lht bn/ora flecks after ch? in matrix with fine ch(w) veinlets on fol.	0.005	float	320956	grab_rc	thinsection; lithology & alteration characterisation

Table 1: Samples collected in 2023 and recommended treatment.

References

- Bottrill, R. S., Renaud, J., Unwin, L. and Lounejava, E., 2021. Mineralogy, Petrology and Geochemical Analyses, Specimen Creek, Savage River. Unpublished Mineralogical/Petrology Report LJN2020-128 by Mineral Resources Tasmania for Grange Resources.
- Callaghan, T., 2013. EL11/2005 Specimen Reef NW Tasmania Final Exploration Report June 2013. Nimrodel Resources Ltd. Tasmanian Company Report for Mineral Resources Tasmania (TCR14-6804).
- Callaghan, T., 2012. EL11/2005 Specimen Reef Project, Tasmania Airborne Magnetic Survey: Data Processing and Interpretation. Regency Resources Ltd , Southern Geoscience Consultants Pty Ltd , Walkabout Resources Pty Ltd. Tasmanian Company Report for Mineral Resources Tasmania (TCR14-6394).
- Cumming, G. V., Jackman, C. J. And Everard, J. L. (compilers) 2019. Digital Geological Atlas 1:25 000 Scale Series. Sheet 3440 Savage River. Mineral Resources Tasmania.
- Turner, N. J., 1997. Exploration Licence No. 26/95 Specimen Creek, Western Tasmania. Annual Report to 6/3/97. Goldstream Mining NL & Titan Resources NL. Tasmanian Company Report for Mineral Resources Tasmania (TCR97-4075).
- Turner, N. J., 1998. Exploration Licence No. 26/95 Specimen Creek, Western Tasmania. Annual Report to 6/3/97. Goldstream Mining NL & Titan Resources NL. Tasmanian Company Report for Mineral Resources Tasmania (TCR99-4288).

LIDAR <https://services.thelist.tas.gov.au/arcgis/services/Basemaps/Hillshade/MapServer/WmsServer>

Appendix

List of appended data files:-

Exploration Work Type	Filename	File format
<i>Report</i>	EL082014_202406_01_2023MappingReport.pdf	<i>pdf</i>
Field Location Data	EL082014_202406_02_FieldLocationData.xlsx	<i>zip</i>
250k GIS Files	EL082014_202406_03_GIS_Data.zip	<i>zip</i>
File Verification Listing (<i>this file</i>)	EL082014_202406_04_FileListing.xlsx	<i>xls</i>