STELLAR RESOURCES LIMITED

Tarcoola Iron Pty Ltd

EL 12/2020 PIPERS RIVER

ANNUAL TECHNICAL REPORT FOR THE PERIOD

16 August 2021 – 15 August 2022

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ABSTRACT

This Annual Report for EL 12/2020 Bridport Road, covers the period from 16 August 2021 to 15 August 2022, the first year the licence has been held by Tarcoola Iron Pty Ltd ("Tarcoola Iron"), a wholly owned subsidiary of Stellar Resources Limited.

EL 12/2020 is one of the first 10 exploration licence applications in north-east Tasmania made in September 2020 by Tarcoola Iron and one of the first 8 EL's granted to Tarcoola Iron on 16 August 2021. As of the date of this report, Tarcoola Iron holds a total of 12 EL's in Northeast Tasmania covering a combined area of 2,559 km^2, along with application EL3/2022 covering an area of 97 km^2. Tarcoola Iron is actively exploring for gold, and also for tin and base metals on some EL's, on the ground it holds in northeast Tasmania.

Regionally the North-east Tasmania area is highly prospective for Victorian-style Orogenic Gold, Intrusive Related Gold Systems (IRGS) contains ~739 recorded historic gold occurrences. Included of note is the Beaconsfield Mine (2.3 MOz), Lefroy Goldfield (0.2MOz) and New Golden Gate Mine (0.3 MOz).

EL 12/2020 is situated over the Pipers River and Retreat area, between the towns of Bridport and George Town on Tasmania's NE coast. The tenement contains a series of hard-rock gold occurrences that collectively make up the Back Creek and Leura Goldfields.

A substantial amount of work has been competed by Tarcoola Iron and its consultants during the reporting period on capture of historic soil sampling, rock chip and stream sediment sampling results and creation of a historic exploration databases combining historic data from MRT's database with date captured by Tarcoola.

Desktop exploration targets were generated from the historic exploration database using a GIS environment. Initially this was done in Google Earth by Stellar with an updated desktop targeting study then completed by Josh Philips (JP Geoscience) using QGIS resulting in a list of Areas of Interest (AOI's) / targets which have been prioritised for follow up field exploration. Two medium to high priority AOI's (targets) and one lower priority AOI were identified within EL 12/2020;

- Back Creek-Leura – AOI_003
- Lefroy Forest – AOI_004
- Den Ranges – AOI_006 (lower priority)

A major soil sampling program was conducted over the Back Creek and Leura Goldfields between 31/01/2022 and 07/04/2022, with additional rock chipping and structural mapping conducted during that period. A total of 841 soil samples and 58 rock chips were collected (Figure 1).

Exploration expenditure on EL 11/2020, during the 16 August 2021 to 15 August 2022 reporting period totalled $200,042.

The proposed work program for the next year (2023) includes:

- Reconnaissance soil sampling and rock chip sampling at Lefroy Forest and Den Ranges.
- Drilling to test Leura soil Au anomalies and down dip extents
- Drilling at Back Creek focusing to test soil Au anomalies at Nevermind-Franklin, Lady Emily, and Central Reefs (Hidden Treasure).

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Appendix A EL11_2020_to_EL18_2020 - Phil Muir Reprocessed 2D Geophysics

Appendix B EL11_2020_to_EL18_2020 - Histroric Geochem Database EL11_2020 to EL18_2020

Appendix C EL12_2020 - SRZ Soil Geochem Results Back Creek & Leura

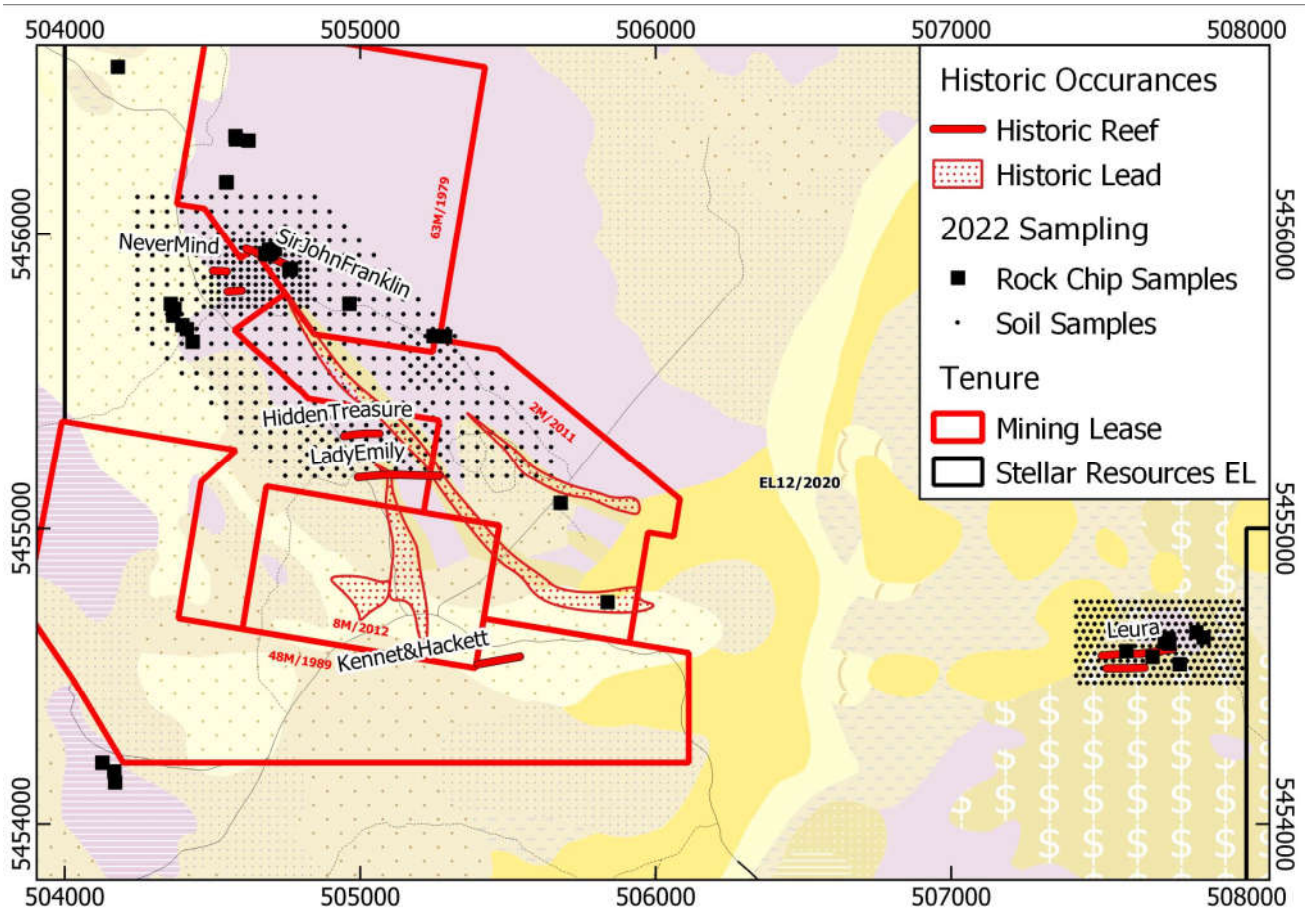

Figure 1. Activities Summary map for EL 12/2020 - Geology as per MRT 1:25,000 geologic mapping

1 INTRODUCTON

1.1 Exploration Rationale

1.1.1 Regional

NE Tasmania is considered an extension of the Western Lachlan Fold Belt, which hosts the 4Moz Walhalla gold mine in central Victoria (Figure 2). NE Tasmania hosts the Beaconsfield Mine (2.3 MOz), the Lefroy Goldfield (0.2MOz), and New Golden Gate Mine (0.3 MOz), as well as an additional >700 gold-bearing hard-rock mineral occurrences (Fig 3 & Fig 4). NE Tasmania is considered highly prospective for orogenic and intrusion-related gold. Areas of NE Tasmania are also prospective for granite-related tin-tungsten deposits, hosting the historic Aberfoyle/Storeys Creek and Anchor tin mines as well as a further 200 additional tin-bearing hard-rock mineral occurrences.

EL 12/2020 is one of 10 first-in-time ELA's registered with MRT by Tarcoola Iron Pty Ltd in September 2020, covering a combined area of 2,295 km^2 in NE Tasmania.

1.1.2 Prospect

EL 12/2020 contains 19 Au-bearing hard-rock mineral occurrences, that broadly define two areas of interest for gold mineralisation. The 14 occurrences in the north of the EL collectively define the Back Creek-Leura Goldfields, which are currently the focus off exploration activity. The 5 occurrences in the SW of the EL occur along a significant NW-SE trending lineament, along strike of the historic Lefroy Goldfield. The Back Creek-Leura Goldfield as identified as priority area of interest (AOI) during the regional data review primarily due the historic alluvial and hard-rock gold occurrences, and the lack of any modern exploration in the area.

1.2 Regional Geology

1.2.1 Geological Setting

Regionally, NE Tasmania comprises Ordovician to Devonian turbiditic sediments of the Mathinna Super-Group, which have been variably deformed and later intruded by dioritic – granitic plutons of mid-Devonian age. The regional structure suggests episodic orogenesis resulting in early recumbent folding developed in the early Tippogorree Group west of Pipers River during the Benambran, and two subsequent phases of upright folding of Tabberaberan age in the Panama Group east of Pipers River (Reed 2004).

The similar timing of deposition, deformation, metamorphism, and granite intrusions for gold in Northeast Tasmania has been aligned with the rich Walhalla-Woods Point belt in the eastern part of the Melbourne structural zone and Lachlan Fold Belt associations.

1.2.2 Mineralisation

Two styles of gold mineralisation are identified in NE Tasmania.

Orogenic gold mineralisation occurs within quartz veins which occupy 2nd or 3rd order dilational zones along large-scale faults related to folding and deformation. Typically, the orientation of these veins west of Pipers River tends to be east-west, which contrasts with that east of Pipers River, which tends to be NW. Both are interpreted to reflect dilation along sinistral transpressional structural corridors oriented NW and NNW, respectively. Intrusive Related Gold occurs as veins and in stockworks at the margins of gold-bearing granodiorite stocks and plutons.

The two major mineralisation styles Orogenic gold, and Intrusion Related Gold Systems are typically identified by distinctive geophysical characteristics and associated mineral assemblages determined by the different geological settings. Regional scale structural trends/lineaments identified in aeromagnetic and gravity surveys and corresponding mapped faults have been interpreted as targets for orogenic gold mineralisation, whereas IRGS mineralisation is typically targeted using magnetic highs (or lows) associated with margins of granodiorites, interpreted as reflecting magnetite alteration and hornfelsing of the Mathinna group sediments, or strong mag-destructive sericite alteration.

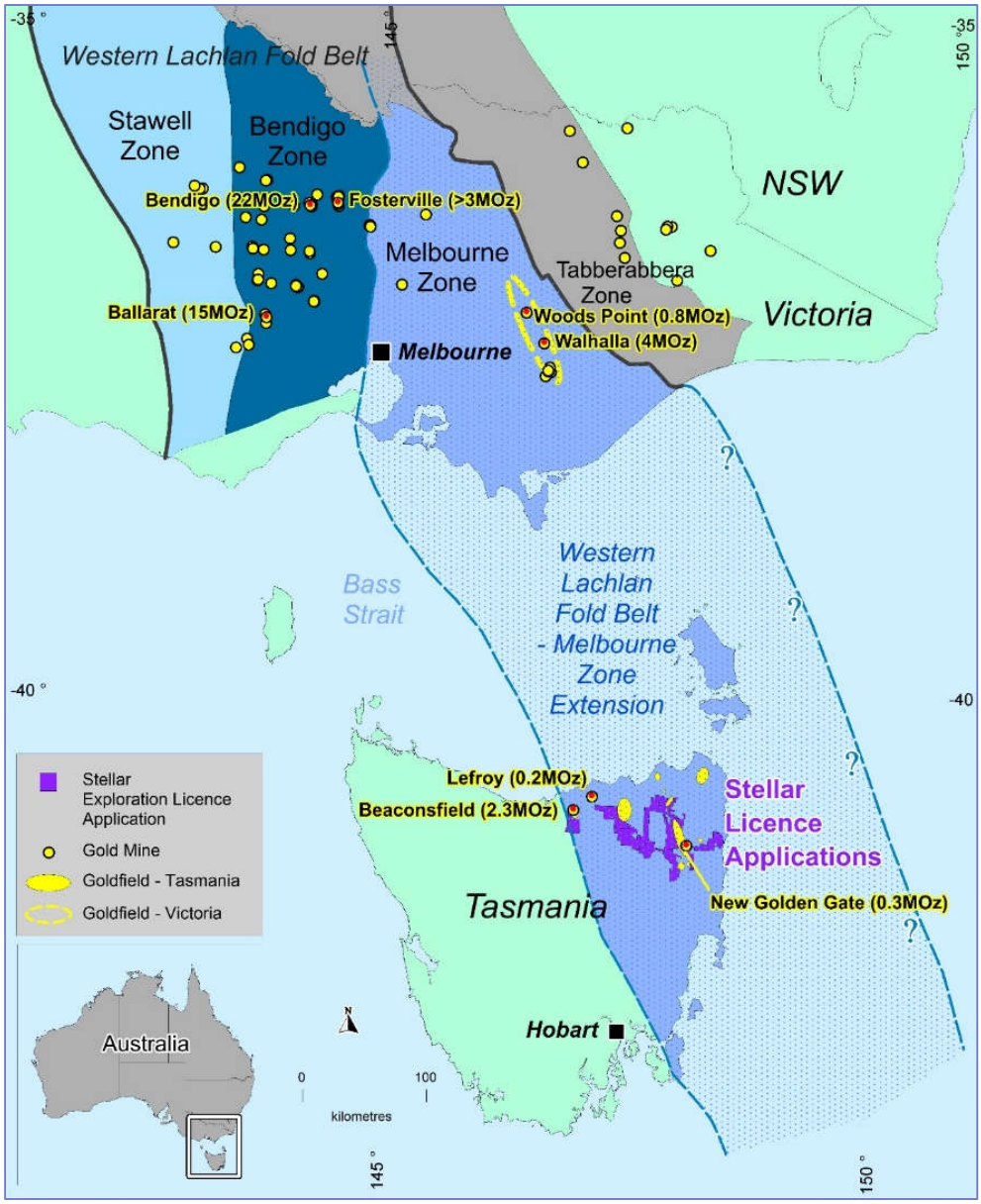

Figure 2. Continuation of the Lachlan Fold Belt from Victoria into NE Tasmania

1.2.3 Structure

The regional structure of NE Tasmania has been studied in detail and comprehensive reviews can be found in Reed (2004) and Seymour (2001). In brief, the regional NW strike of much of the Mathinna Supergroup reflects the NE and subsequent SW directed compressive events during the Benambran and Tabberaberan Orogenies. Rheological contrasts between sedimentary rock units resulted in dilational structures generally parallel to slightly oblique to the regional strike with mineralisation emplaced during major folding event. The shape and orientation of structures formed during earlier deformations has also influenced the orientations of reefs formed during D3 in the Alberton, Mathinna and Mangana goldfields, sub-vertical bedding on the steep northeast limbs of upright D2 folds was in an orientation conducive to shear failure during D3 resulting in reefs striking predominantly northwest and parallel to regional fold trends (Reed 2004).

In contrast, Beaconsfield and the Lefroy goldfield are unique within southeast Australia where mineralised fault reefs strike in an easterly direction at a high angle to the predominantly northwest strike of bedding and folds. Lack of gold mineralisation along bedding planes, and pre D3 structures indicate reef formation resulting of a period of wrench faulting (Reed, 2004).

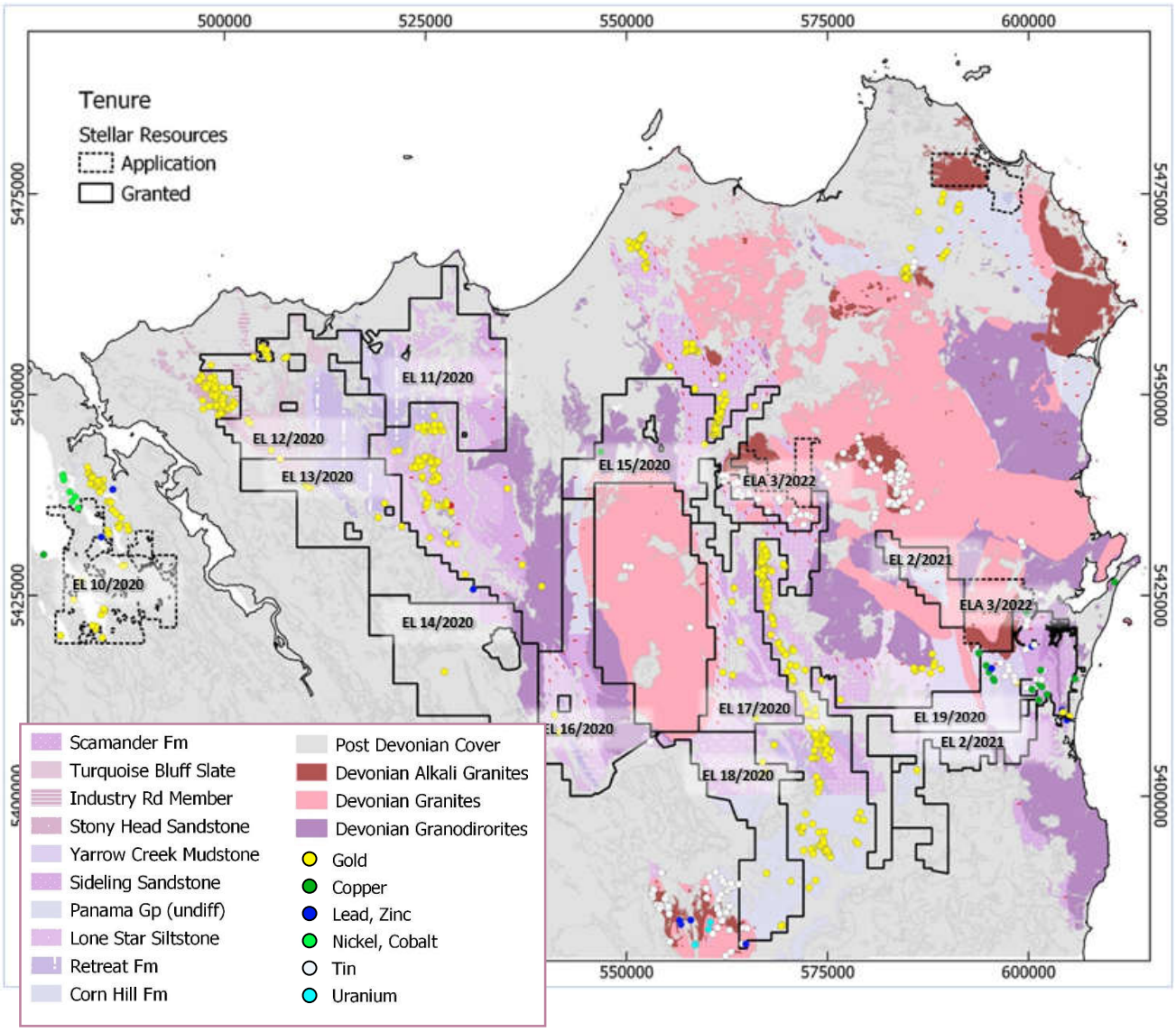

Figure 3. Stellar Resources Exploration Licences, overlaying NE Tas Geology, EL 10/2020 is now granted.

1.3 Prospect Geology

The basement geology of the Back Creek-Leura Goldfield is comprised dominantly of the Turquoise Bluff Slate, part of the Tippogorree Group, which is the older Ordovician component of Mathinna Supergroup. The lithologies of the Turquoise Bluff Slate vary from dark grey-black strongly cleaved slate, which outcrop well on the ridges and hills, and which has been mined commercially for slate building material, to a recessive yellow-brown sandstone in the west of the prospect area.

Unconformably overlying the bedrock is a thin layer of locally derived quartz-rich gravels, fining up into a partially consolidated sandy-clayey sediment. The gravels, locally called 'the wash', are locally gold-bearing both at Back Creek and Leura and have been worked extensively for alluvial gold. Unconformably overlying the quartz-gravels is a multi-phase basalt flow of Tertiary age, anecdotally reported to have 3-5 flows, each with a distinctive flow-top breccia, best developed in the main Back Creek drainage. Outside of this drainage, the Tertiary Basalt is generally confined to isolated outcrops or sub crops, which collectively define paleo valleys. Outside the paleo valleys, a variety of unconsolidated material is present. The most notable is a light grey, medium to fine grained, well sorted sand – interpreted to be part of a paleo-dune system. All of these younger cover sediments act to obscure mineralisation.

2 LICENCE

2.1 Regional Exploration Licence Package

2.1.1 Tarcoola Iron Exploration Licence Applications

In September 2020, Stellar Resources Limited's wholly owned subsidiary, Tarcoola Iron Pty. Ltd ("Tarcoola Iron") submitted its first 10 EL applications (EL10/2020 to EL19/2020) in Northeast Tasmania.

In February 2021 Tarcoola Iron submitted a further 2 EL applications (EL2/2021 and EL3/2021) in Northeast Tasmania.

In In February 2022 Tarcoola Iron submitted a further 1 EL application (EL3/2022) in Northeast Tasmania.

2.1.2 Tarcoola Iron Exploration Licence Grants

On 16 August 2021, the first 8 EL's (EL11/2020 to EL18/2020) were granted to Tarcoola Iron.

On 1 March 2022, EL19/2020 and EL2/2021 were granted to Tarcoola Iron.

On 26 April 2022, EL10/2020 was granted to Tarcoola Iron.

On 26 May 2022, EL3/2021 was granted to Tarcoola Iron.

As of the date of this report, Tarcoola Iron holds a total of 12 EL's in Northeast Tasmania covering a combined area of 2,559 km^2, along with application EL3/2022 covering an area of 97 km^2. Tarcoola Iron is actively exploring for gold, and also for tin and base metals on some EL's, on the ground it holds in northeast Tasmania.

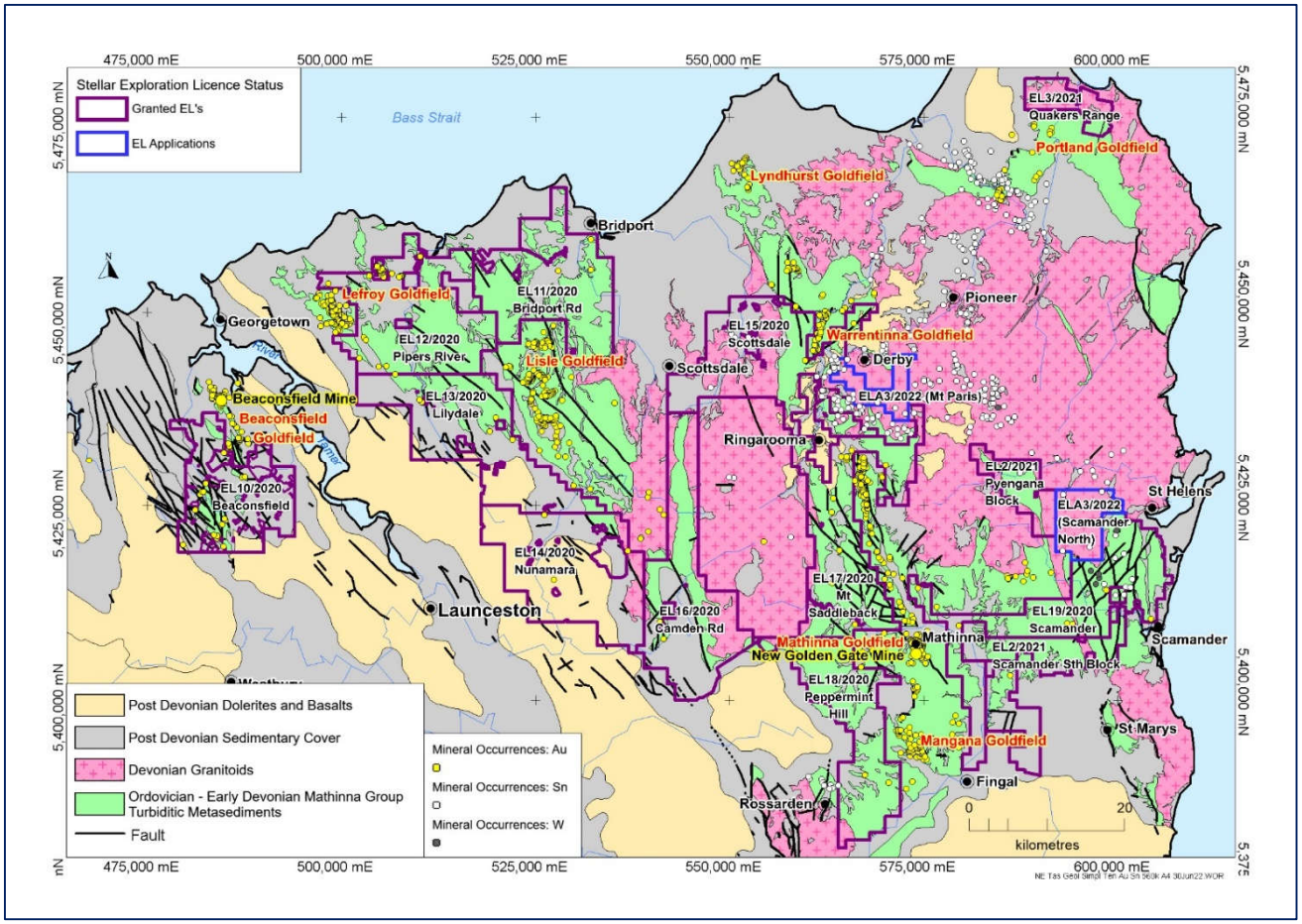

Figure 4. Stellar Resources Exploration Licences, blue-granted and purple- under application overlain on Geology.

2.2 Exploration Licence Summary

Tenement number:	EL 12/2020
Tenement name:	PIPERS RIVER
Tenement area:	238km^2
Tenement location:	The tenement occurs 16 kilometres east of George Town. It adjoins the western boundary of EL 11/2020, Bridport Road, and the northern boundary of EL13/2020, Lilydale, which are both held 100% interest by Tarcoola Iron Pty Ltd. (Figure 4). Main road access is via Bridport Road, Pipers River Road, and Industry Road, with numerous unsealed tracks traverse the licence area. (Figure 5).
Tenement land status:	Land tenure as listed by the Department of State Growth (MRT), is listed as Private Land, permitted Timbre Production Zone Land, Regional Reserve, Authority Land, Informal Reserve – Public Land, and Mining Leases (930P/M, 7M/2017, 2108P/M 18M/1994) Refer to Figure 6.
Tenement vegetation:	Vegetation as listed by the Department of State Growth, is listed as Eucalyptus Amygdalina forest (25%), coastal terrace mosaic (25%), plantations for silviculture (25%), Eucalyptus Obliqua forest (5%), unverified plantations for silviculture (5%), Eucalyptus Obliqua forest and broad leaf shrub (5%), Eucalyptus Regnans (5%), Eucalyptus Obliqua forest over leptospermum (2%), Wet heathland (2%), Melaleuca Squarraosa (1%)
Reporting period:	16 August 2021 to 15 August 2022.
Tenement holder:	Tarcoola Iron Pty Ltd., a wholly owned subsidiary of Stellar Resources Ltd.

2.3 Exploration Licence Location

The tenement occurs 16 kilometres east of George Town. It adjoins the western boundary of EL 11/2020, Bridport Road, and the northern boundary of EL13/2020, Lilydale, which are both held 100% interest by Tarcoola Iron Pty Ltd. (Figure 4). Main road access is via Bridport Road, Pipers River Road, and Industry Road, with numerous unsealed tracks traverse the licence area. (Figure 5).

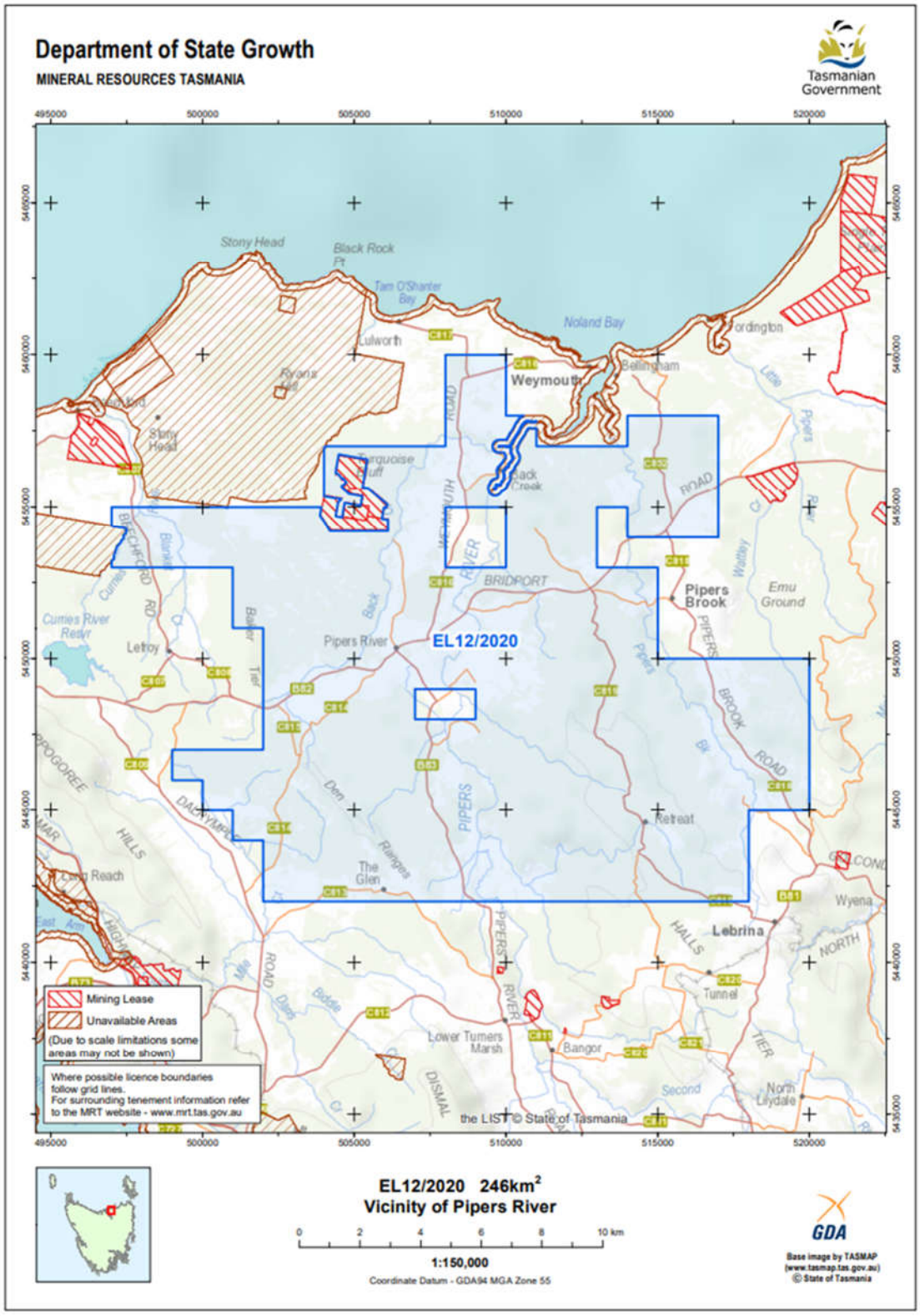

Figure 5. EL 12/2020 Location Plan (MRT issue)

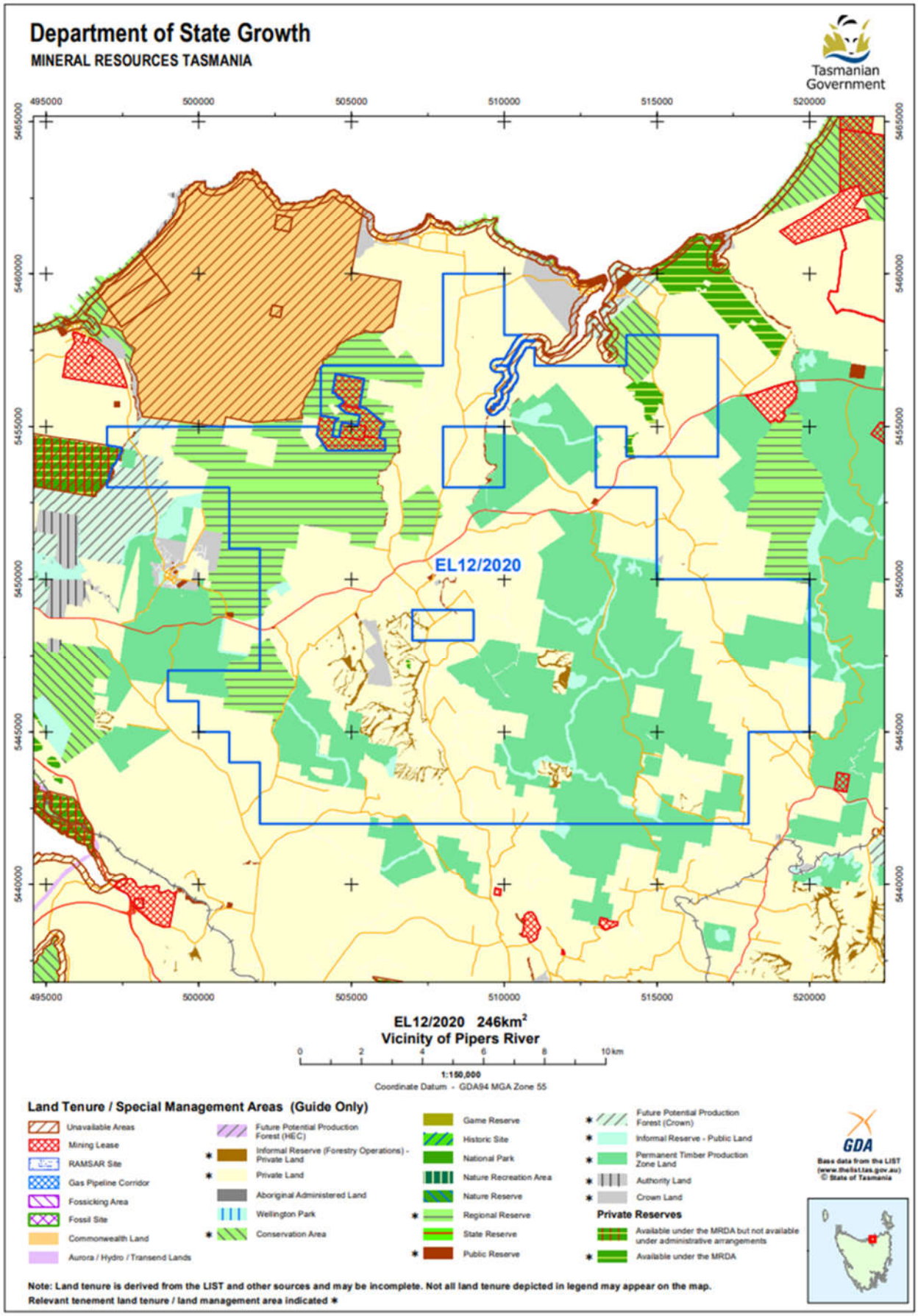

Figure 6. EL 12/2020 Land Tenure Map (MRT issue)

3 RELINQUISHMENTS

3.1 Regional

Six applications were submitted on 4 August 2022 for partial surrender of ground within EL12/2020, EL13/2020, EL14/2020, EL15/2020, EL17/2020 and EL18/2020 held by Tarcoola Iron as shown in Figure 7.

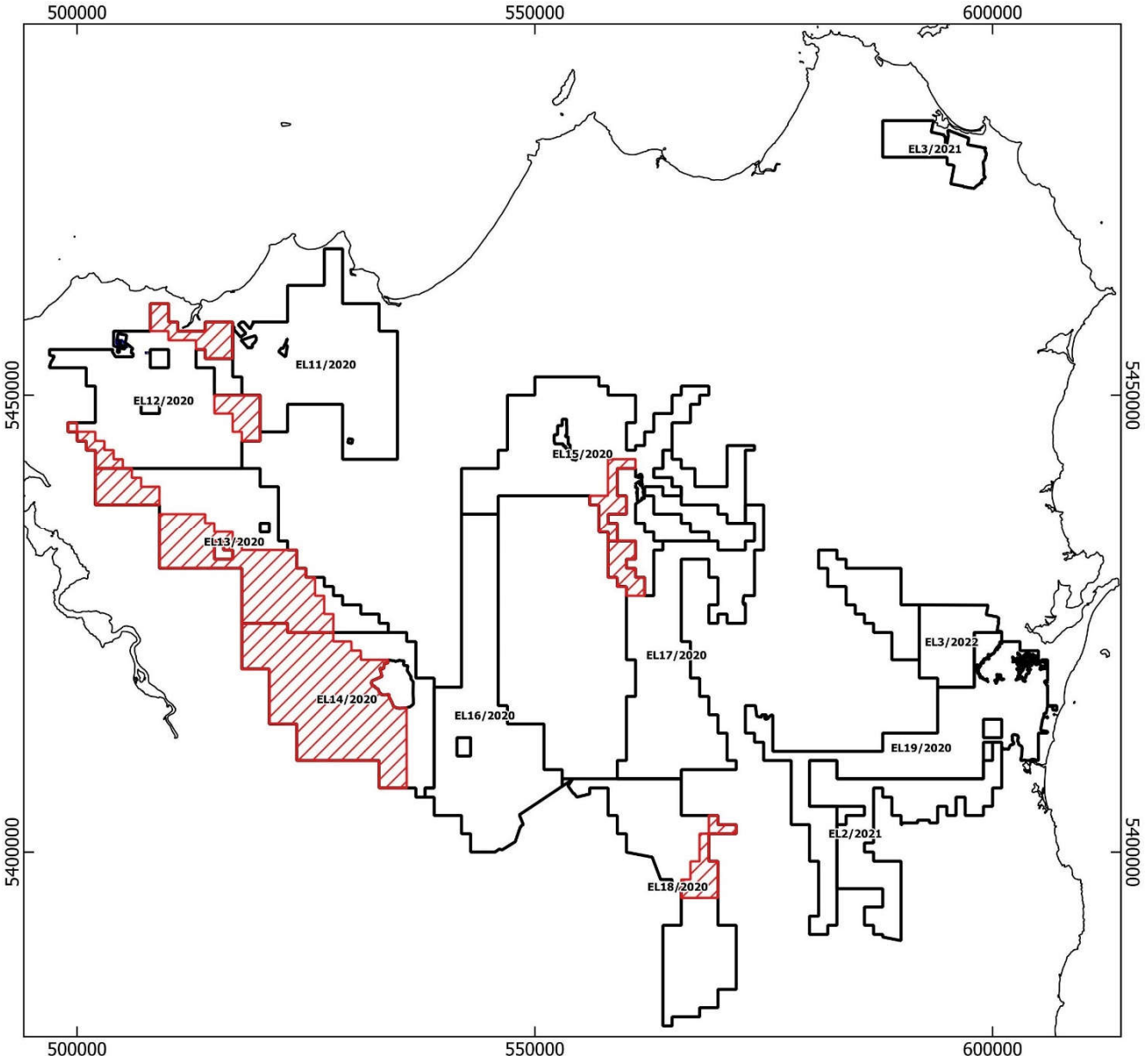

Figure 7. Applications for Partial Surrender made on 4 August 2022 (Black – current Tarcoola EL's, Red hatched areas – surrendered areas). GDA 94.

The partial surrender applications submitted on 4 August 2022 include surrender of a total of 431 km^2 (22.7%) of the total 1,901 km^2 area of the first 8 EL's (EL11/2020 to EL18/2020) granted to Tarcoola Iron on 16 August 2021. Once approved the partial surrender applications will reduce the total area of the first 8 EL's (EL11/2020 to EL18/2020) granted to Tarcoola Iron on 16 August 2021 to 1,470 km2 as shown in Table 1.

Tarcoola Iron's application to surrender these areas is based on its year 1 reconnaissance exploration which has focused exploration on priority targets within retained areas and reduced the prospectivity of the areas being surrendered.

Table 1. Summary of Applications for Partial Surrender made on 4 August 2022

EL	EL Area (km^2)	Area to Relinquish (km^2)	Remaining Area (km^2)	Percent of EL
11_2020	236.0	0.0	236.0	0.0
12_2020	248.0	51.9	196.1	20.9
13_2020	242.0	133.7	108.3	55.2
14_2020	247.0	191.3	55.7	77.4
15_2020	244.0	17.1	226.9	7.0
16_2020	248.0	0.0	248.0	0.0
17_2020	241.0	16.0	225.0	6.7
18_2020	195.0	21.0	174.0	10.8
Total	**1901.0**	**431.0**	**1470.0**	**22.7**

3.2 Area of Current Licence

An area reduction of 51.9 km^2 over EL12/2020 has been included as partial surrender applications made by Tarcoola Iron on 4 August 2022.

4 REVIEW OF PREVIOUS WORK

4.1 Historic Summary

A review of all work completed on EL 12/2020 Pipers River as compiled by Adrian Rigg is listed in table 2.

Table 2. Historic Exploration Summary

EL12/2020 Pipers River					
Company	**Year**	**Location**	**Activity**	**Comments**	**Report**
TMD	1931	Back Creek	Drilling x 3	Au; Auger	
TMD	1931	Pipers River	Drilling x 4	Au; Auger	
CRAE	1981-82	Regional, Dead Horse Ck, Bessell's Reward, Union Mine	Rock & soil sampling	Ag, As, Au, Cu, Mn, Pb, Zn	83-1955
Murdock Geosciences	1986	Lefroy Deep Lead & Back Ck Deep Lead	Drilling x 10	Au, deep lead; Auger	86-2581
TGS	1993	Pipers River	Aeromagnetic survey	200m fls	
Lefroy Gold Mines	1995	Regional	Stream sed sampling	Au	95-3774
Allstate Explorations	1996	Regional	Stream sed sampling	Au, As	97-4077, 00-4452
Allstate, Lefroy Gold Mines, Lefroy Resources	1995-2005	Lefroy Goldfield	Drilling	Not in EL	05-5233
Lefroy Resources	1996	Native Industry Prospect	Rock & soil sampling	Au, As	96-3919
Allstate Explorations	1996	Regional	Stream sed sampling	Au, As	00-4452
Lefroy Resources	1997	Volunteer Reef	Soil sampling	MMI, 18 elements	97-4005
MRT	1999	Nth Tasmania	Aeromagnetic survey	200m fls	
Lefroy Resources	2004	Lefroy	Aeromagnetic survey	100m fls	
Lefroy Resources	2005	Lefroy Goldfield, Perpetual & Volunteer	Soil sampling	Ag, As, Au, Cu, Fe, Mn, Pb, Sb, Zn	05-5233, 06-5386
Lefroy Resources	2007	Lefroy West	Aeromagnetic survey	100m fls	
MRT	2007	NE Tasmania	Aeromagnetic survey	200m fls	
Beaconsfield Gold	2008	Back Ck Goldfield	Soil sampling	Ag, As, Au, Cu, Fe, Mn, Pb, Sb, Zn	09-5946

5 EXPLORATION COMPLETED DURING REPORTING PERIOD

5.1 Historic Data Capture, Creation of Database and GIS Environment and Targeting Studies

A substantial amount of work has been competed by Tarcoola Iron and its consultants during the reporting period on capture of historic exploration data, creation of exploration databases and GIS environments, and generation of desktop exploration targets using these data sets.

5.1.1 Reprocessing of Geophysical surveys

From November 2020 to January 2021 Phil Muir from Southern Mineral Exploration Geophysics completed reprocessing of aeromagnetic, radiometric and gravity surveys over EL 13/2020 and other tenements held by Tarcoola Iron in the NE Tasmania (Appendix A). In addition to the 2007 Northeast Tasmania and 1999 Northern Tasmania regional aeromagnetic and radiometric surveys, 6 local aeromagnetic surveys over Tarcoola Iron's NE Tasmania tenements were reprocessed using 5 different filterers on aeromagnetic surveys, 5 different filters on airborne radiometric surveys and 2 different filters on gravity surveys. For each survey and filter combination, 4 different colouring options were produced resulting in a total of 362 different reprocessed geophysical images generated (See Appendix A). Local surveys were also stitched into regional surveys to produce combined regional-local survey stitched images.

The reprocessed geophysical surveys produced by Southern Mineral Exploration Geophysics have provide a key targeting tool for desktop identification of orogenic structural gold targets and IRGS targets.

5.1.2 Creation of Historic Exploration Database and GIS Environment (Google Earth)

In October 2020, Ross Corben from Geowiz Consulting compiled Tarcoola Iron's initial exploration database in Microsoft Access, containing all available historic exploration data including:

- Soil sampling results
- Stream sediment sampling results
- Rock chip results
- Drilling results
- Historic records on occurrences

Geowiz then established a GIS environment in Google Earth incorporating all the data in the historic exploration Microsoft Access database, along with the reprocessed geophysical surveys completed by Southern Mineral Exploration Geophysics and published 25K and 50K geological map sheets.

Historic data captured initially from MRT's databases contained significant data gaps with almost no historic soil sampling results available, a significant amount of stream sediments sampling results not available and some rock chip results also missing. This missing data has been laboriously captured throughout the reporting period from public file Company annual exploration reports by Tarcoola Iron's GIS consultant, Adrian Rigg (see 5.1.4) and has been updated in the Microsoft Access historic exploration database and GIS environments by Geowiz on an ongoing basis approximately every one to two months throughout the reporting period.

5.1.3 Initial Desktop Targeting (Gary Fietz, Tom Whiting)

From December 2020 to July 2021, Stellar Resources Directors Gary Fietz (geologist) and Tom Whiting (geophysicist) completed an initial desktop targeting study within Tarcoola Iron's Northeast Tasmania tenements using the Microsoft Access historic exploration database and GIS environment in Google Earth created by Geowiz. This study identified over 50 conceptual desktop gold exploration targets within Tarcoola Iron's Northeast Tasmanian tenements.

5.1.4 Capture of soils and stream sediment data (Adrian Rigg)

From February 2021 to March 2022, GIS consultant Adrian Rigg has worked part-time on capturing soil sampling, stream sediment sampling and rock chip sampling data not available in MRT's database from public file Company annual exploration reports (Table 3).

Table 3. Summary of geochemical datapoints Adrian Rigg

Source	Tenement	Type	Count
Report	EL11/2020	Rock	66
Report	EL11/2020	Stream Sediment	4
Report	EL12/2020	Rock	28
Report	EL12/2020	Soil	41
Report	EL12/2020	Stream Sediment	87
Report	EL13/2020	Stream Sediment	3
Report	EL14/2020	Rock	1
Report	EL15/2020	Rock	12
Report	EL15/2020	Soil	292
Report	EL15/2020	Stream Sediment	130
Report	EL16/2020	Rock	55
Report	EL17/2020	Rock	115
Report	EL17/2020	Soil	217
Report	EL17/2020	Stream Sediment	24
Report	EL18/2020	Rock	100
Report	EL18/2020	Stream Sediment	8

5.1.5 Updated Historic Exploration Database and GIS Environment (QGIS)

The historic soil, stream sediment and rock chip sampling data captured by Adrian Rigg (see 5.1.4) has been updated into Tarcoola Iron's Microsoft Access historic exploration database and GIS environments every one to two months by Geowiz so that the most up to date data has been available for use in targeting studies.

A copy of the current Microsoft Access database containing the soil sampling, stream sediment sampling and rock chip sampling data not available in MRT's database that was captured by Adrian Rigg is provided in Appendix B.

5.1.6 Revised Desktop Targeting (Josh Phillips)

A desk top study was conducted by Josh Phillips Geoscience in September 2021, comprised data capture and review of all historic data including soil, rock chip and stream sediment results, drilling results and historic records on occurrences within each tenement as well as analysis of geophysical surveys completed by Phil Muir. This study identified Areas of Interest (AOIs) as listed in table 4, and proposed work programs for each of the tenements. The areas of interest were ranked for prioritisation of fieldwork (Figure 8).

Table 4. Areas of Interest by Tenement Name

Tenement	NEW AOI_ID	Name	Attributes
EL11	**AOI_001**	Nabowla	Mag/Grav similar to Lisle, 0.5 0.75 ppm Au in Streams
EL11			Fussy mag in mathinna, 3.0 - 0.1 Au rock chips in coherent anomaly with poorly sampled streams
EL11			Disturbed Mag in Mathinna
EL11	**AOI_002**	Emu Reserve	
EL12	**AOI_003**	Back Creek-Leura	Alluvial Au Mines, Au MinOccs, NW Faults
EL12	**AOI_004**	Retreat	Along Strike from Back Creek/Lisle, possible step over Structure in Mag
EL12	**AOI_005**	Lefroy Forest	Fold Closures and thrust faults in Mathinna
EL12	**AOI_006**	Den Ranges	Au MinOccs, Along Strike from Lefroy, poorly sampled streams
EL12	**AOI_007**	Pipers River	50ppm As, 12ppm Ag, 120ppm Cu, 80ppm Pb, 500 ppm Zn in Streams
EL13	**AOI_008**	Lower Turners Marsh	Au MinOccs, Subtle NE lineament, limited surface geochemistry
EL13	**AOI_009**	North Lilydale	Au MinOccs, subtle NE lineament, limited surface geochemistry
EL14	**AOI_010**	Mt Barrow Nth	Mag highs, thrust faults and? fold closures in mathinna
EL14	**AOI_011**	Mt Barrow Sth	Hi Mag Hornfels/Contact zone of unmapped intrusion?
EL14	**AOI_012**	Burns Creek	Doughnut Mag Feature
EL14	**AOI_013**	Everton	Doughnut mag feature
EL16	**AOI_014**	Upper Blessington	Fussy mag in mathinna, old workings in area of complex folding/faulting, associated with drag fold on significant NE trending structure
EL16			
EL16	**AOI_015**	North Esk	Mag Blip at margins of Blessington granodiorite, close to mapped QFP
EL16	**AOI_016**	Ben Lomond	Mag Blip in Blessington Granodiorite, adjacent to Ben Lomond NP
EL18	**AOI_017**	Joy Creek Reserve	Fussy Mag in Mathinna - No geochem
EL18	**AOI_018**	Sawpit Ridge	Deep Mag Feature in Mathinna
EL15	**AOI_019**	Stronach	Early I-Type granite (Mag High) cut by NW, and NE structures, Spurious >1000ppm Mo in streams
EL15	**AOI_020**	Ringarooma	Undercover splays and along strike extent of Mathinna Min Occs, some Sn Min Occs
EL15			2 pt. anomaly >1000ppm Sn in streams
EL15	**AOI_021**	Legerwood	Legerwood drill hole
EL17	**AOI_022**	Alberton Nth	Undercover splays and along strike extent of Mathinna Min Occs
EL17	**AOI_023**	Alberton Sth	3-4 ppm Au in streams, downstream from mapped thrust and Au MinOccs (Spurious data?)
EL17	**AOI_024**	Upper Esk	Au MinOccs, 3x large >500ppm As Anomaly, 40 ppm Sb, Sporadic Au in Rock chips
EL17	**AOI_025**	Mt Paris	3-point anomaly >1000ppm Sn in streams
ELA3/2022			Adjacent to >1000 ppm Sn
EL2/2021	**AOI_026**	Pyengana	NW Linear Mag suggestive of Mathinna, with NE demag trends, >100ppm As in Amphibolite(hornfels) rock chip, 25-30ppm Bi in Streams over Mag blip, 750ppm Sn in NW
EL19	**AOI_027**	Scamander Mineral Field	8km long 100-6000ppm As anomaly, in structurally complex Mathinna
EL19			NE trending Ag Anomaly in structurally complex Mathinna
EL19			Bi-W Anomaly in Mathinna
EL19			20-50ppm Mo Anomaly in Mathinna
EL19			Sn-Cu-As-Pb-Zn Anomaly in Mathinna
EL19	**AOI_028**	Upper Scamander River	Crosscutting linear mag features in folder and faulted Mathinna, QFP, granite contacts, sporadic Au in Streams
EL19	**AOI_029**	Teds Flat Reserve	15 ppm, 0.62ppm Au, 95ppm As, 220ppm Cu, 190 ppm Zn, 50 ppm Mo in Streams, close to large NW striking? splay structure
EL3/2021	**AOI_030**	Rushy Lagoon	Mag features in Mapped alkali granite
EL3/2021	**AOI_031**	Musselroe Bay	Mag Blip at contact between mathinna and granite (covered)
EL10/2020	**AOI_032**	Rookery Creek	
EL10/2020	**AOI_033**	Winkleigh	
EL10/2020	**AOI_034**	Mt Careless	

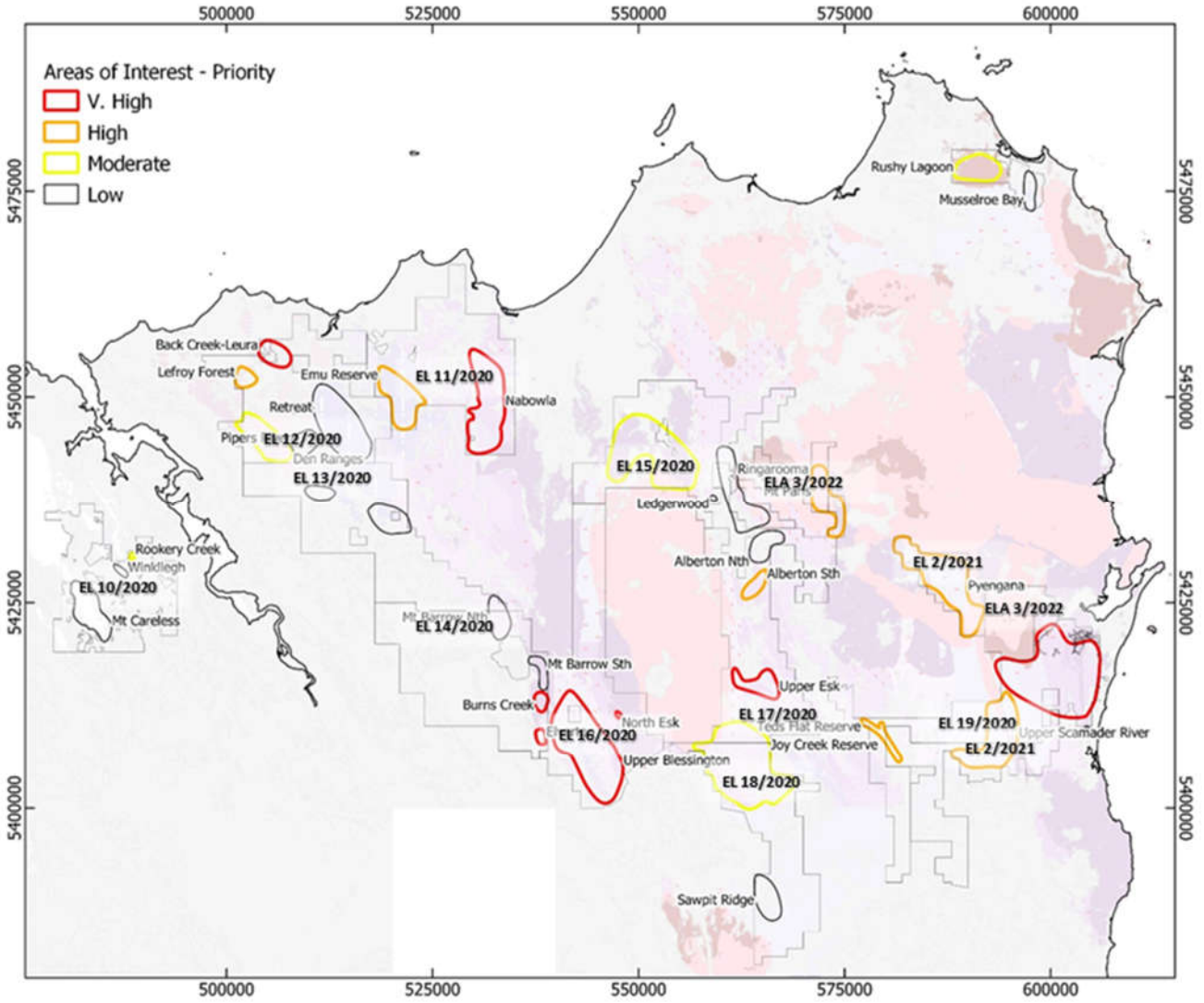

Figure 8. NE Tas Tenure and areas of interest – Priority

5.2 Prospect Based exploration activities

5.2.1 Areas of Interest and Rationale Study

As part of the updated desktop targeting study review completed by JP Geoscience, two medium to high priority areas of interest (AOI) and one low priority AOI were identified over EL 12/2020:

AOI_003 – Back Creek-Leura, was selected for its historic alluvial and hard-rock gold occurrences and the lack of any modern exploration in the area.

AOI_004 – Lefroy Forest was selected based on the faulting and folding evident in the regional geologic mapping.

AOI_006 – Den Ranges, was selected for the scattered mineral occurrences than occur along a major crustal lineament, visible in the geology, magnetics, and topography of the area, as well as being along strike from the historic Lefroy Goldfield.

5.2.2 Localised Mapping

One day of structural mapping was completed during the reporting period. Bedding, vein, and fault measurements were taken along the Sir John Franklin adit on 63M/1979 (Figure 9).

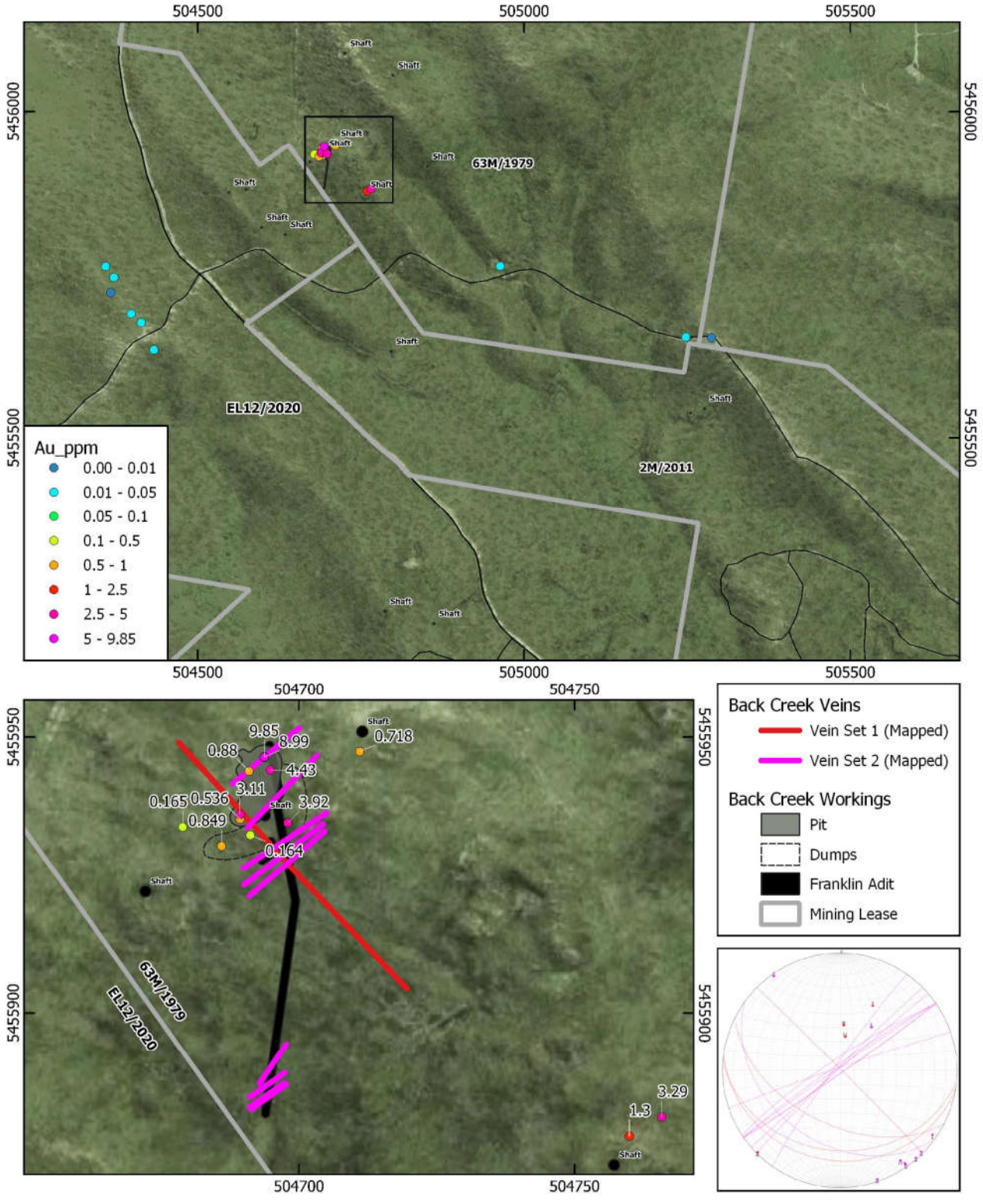

Figure 9. AOI_003 Back Creek showing location of mapping and rock chip sampling

5.2.3 Localised Target Modelling

- No modelling completed during reporting period

5.2.4 Sampling

Given the limited exposure and the lack of any systematic exploration in the Back Creek-Leura Goldfields, a soil sampling program was designed to more accurately map mineralisation in the basement to assist in defining drill targets. The survey area was designed to exclude or minimise areas that would be covered by post-mineral cover sediments to a depth > 1m, so that sampling could be conducted using either a manual or petrol-powered hand-held soil auger. The program commenced on 31/01/022 and was completed on 07/04/2022 (Figure 10).

Opportunistic rock chip sampling was also conducted during this period, where suitable material was available. This effort was primarily focussed on the Sir John Franklin Mine workings.

Database containing all geochemical datapoints for Back creek and Leura located in Appendix C.

5.2.4.1 Back Creek

Soil sampling at Back Creek was conducted on EL12/2020 as well as 63M/1979 and 2M/2011, by arrangement with the lease holders in return for the geochemical data. Sampling targeted C-horizon soil and samples were collected on a 50m x 50m grid, with spacings reduced down to 25m over historically mapped reefs. A total of 565 samples were collected at Back Creek (276 from EL12/2020, 149 from 63M/1979 and 140 from 2M2011).

5.2.4.2 Leura

Sampling at Leura was conducted entirely on EL12/2020 where a total of 276 soil samples were collected. Sampling also targeted C-horizon and samples were taken at 25m intervals.

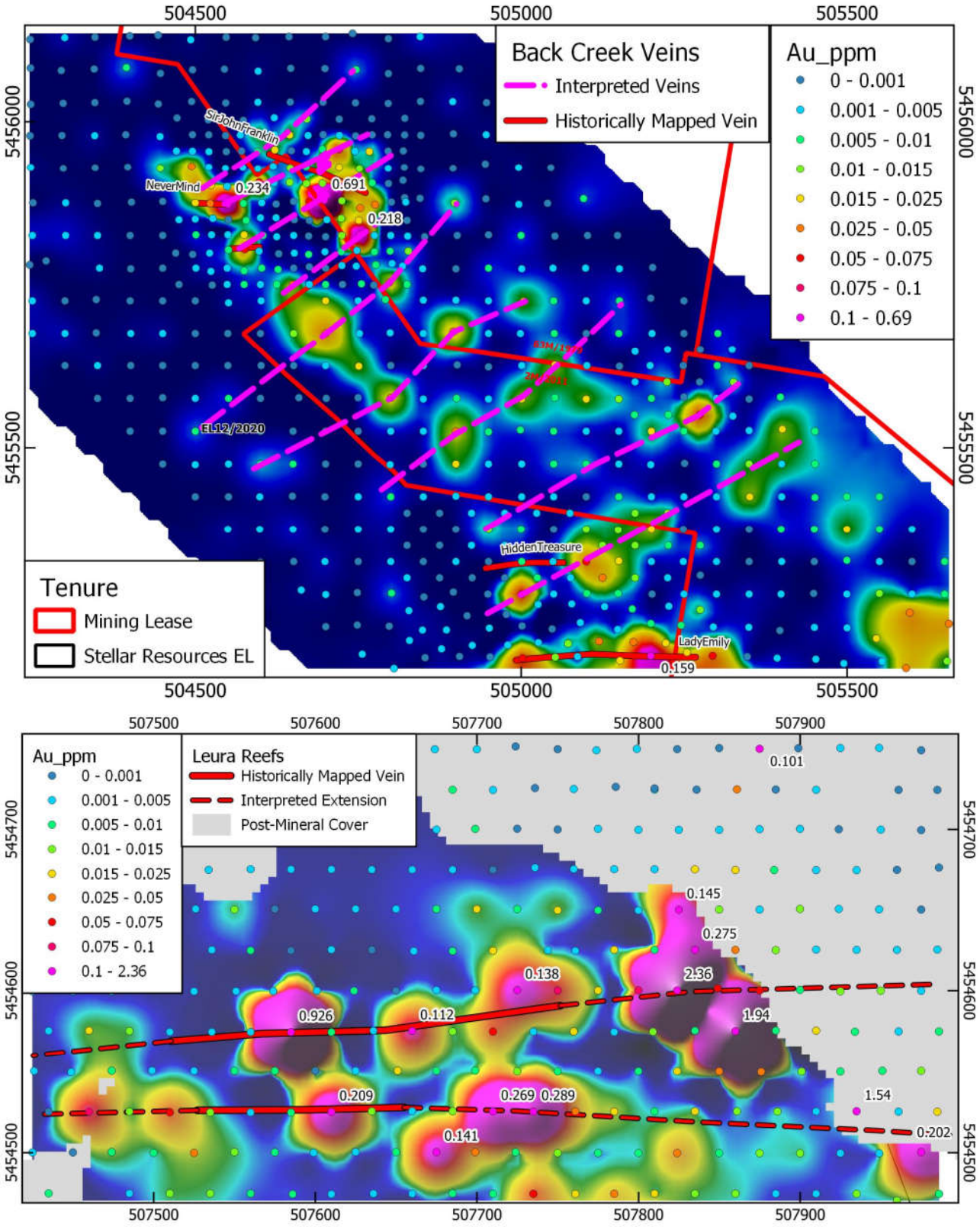

Figure 10. Soil Sampling Results at (A) Back Creek and (B) Leura

6 DISCUSSION OF RESULTS

6.1 AS ABOVE

The geology at Back Creek comprises sandstones and slates of the Turquoise Bluff Slate, part of the Tippogoree Group – the older Ordovician component of the Mathinna Supergroup. Sub-horizontal cleavage orientations exposed in the slate quarry at Back Creek indicate the presence of a recumbent fold in the area, which aligns well with the findings of Reed (2002), who proposed an early recumbent folding event in the Tippogoree Group prior to deposition of the Panama group, probably best correlated with the Benambran orogeny on mainland Australia.

Mapping of the veins exposed in the Sir John Franklin Mine adit identified two vein orientations (Figure 9). The first set dipping moderately SW are bedding-parallel and tend to be poddy and discontinuous. These veins are interpreted to have emplaced during the first stage of (recumbent) deformation in the district. The second set cut the first, are subvertical, strike NE and tend to be sheeted, occurring in arrays of 3 or more narrow veins. The poor development and restricted iron-oxide staining in the early veins suggests gold mineralisation is limited in these veins, compared to the strongly iron-oxide stained later subvertical set, though assay results for these samples are still pending. The later veins cut bedding at a high angle and are interpreted to have emplaced during sinistral transpression (sometimes referred to as 'wrench faulting') along NW trending structures – probably misaligned and recumbent architecture set up during the earlier Benambran event.

Of the 14 rock chip samples from the modern surficial workings and historic spoil heaps, 2 samples returned gold grades of >8 g/t Au and 4 samples returned grades of >3g/t Au which indicates good hypogene grade potential at Sir John Franklin (Figure 9). The hard-rock grade potential at across the broader Back Creek district remains unknown due to lack of exposure and widespread shallow cover.

Rock chip sampling at Leura returned disappointing results, with no samples returning values >1g/t Au. This is most likely because the area has been partially rehabilitated for agricultural use, such that no in situ vein material was available and sampling was limited to 'clean' quartz float from the limited spoil heaps around old shafts. As such, the rock ship results from Leura are not considered representative of the mineralised portion of the hydrothermal system.

The soil sampling program completed at Back Creek and Leura was successful at delineating the gold-bearing veins across the district (Figure 10). The interpreted positions of the veins, based on Au results in soil samples, broadly conforms to the location suggested from historical mapping of Broadhurst (1934), but with a few important differences. Firstly, the soil sampling results highlights the potential for up to 10 distinct vein zones or vein arrays across the length of the Back Creek district, compared to the 5 mapped by Broadhurst (1934). Secondly, combining evidence from the structural mapping of the Sir John Franklin adit, and the gross orientation of the Au-in-soil anomalies, the orientation of the major vein zones appears to be more aligned NE-SW, rather than the east-west orientation suggested by Broadhurst (1934). At the district scale the interpreted veins form an en-echelon geometry, which may support the earlier interpretation that the mineralised veins were emplaced in response to transpression, which commonly results in en-echelon vein arrays. Interestingly the strike length of the anomalies at Back Creek appears to increase to the south, indicating the system continues in that direction, a notion supported by the presence of the historically mapped Hackett and Kennett reef on 48M/1989 (figure 1), which is presumably under a shallow veneer of post mineral cover, though this reef was not investigated as part of this work.

At Leura, the historical vein mapping is in much closer agreement with interpretations made from the soil survey, which support an ENE strike for this this vein system. The observation that the Back Creek en-echelon vein array and the Leura vein system appear to have distinct structural architecture is significant, though the full extent of this apparent difference is yet to be revealed.

Maximum Au values in soils are also significantly different between Back Creek and Leura (Figure 9). Three soil samples from Leura returned values of >1 g/t Au, with 1 sample returning values as high as 2.3 g/t Au. In contrast, the best results in the Back Creek area came from around the exposed Sir John Franklin mine, with 3

samples returning values between 0.21 and 0.69 g/t Au (Figure 9). A fourth significant result came from the south of the survey area around the historically mapped Lady Emily reef, with a single soil sample returning 0.15 g/t Au.

At the Back Creek-Leura Goldfield, post-mineral cover is variably developed, and the composition and provenance of this material is heterogeneous. At Back Creek, it can be difficult to accurately distinguish the locally derived, partially consolidated sandy-clayey transported material from strongly weathered in situ regolith. Compounding this difficulty is the patchy distribution of this alluvial material from one sample point to the next. Despite best efforts in the field, the regolith logging and mapping remains unreliable. Although it is likely that some of that samples did not penetrate the alluvial cover there remains significant uncertainty regarding the specific distribution of these samples, other than to speculate that it is probably more widespread in the south of the survey area. Despite the possibility of some samples coming from post mineral cover, the distribution of anomalous gold does not indicate significant geochemical 'smearing' of gold values in a south-easterly direction (i.e., down slope), such would be expected if a significant proportion of the samples had been taken in transported material (Figure 10). As a consequence of the uncertainty of the depth and distribution of post mineral cover, it could be argued that the gold anomalies are randomly distributed, and geological bias has informed the NE trends in the interpretation of vein orientations. However, Given the number of linear anomalies, their semi-regular spacing and their consistent orientation, we assert that this is less likely to be the case, and that the anomalies more-or-less reflect true Au geochemistry of the bedrock geology.

7 CONCLUSION

7.1 Recommendations

After thorough analysis of the structural mapping and surface geochemistry results, it is recommended that the Back Creek-Leura Goldfield be tested with drilling to investigate the depth potential of this hydrothermal system.

8 FUTURE EXPLORATION

8.1 Proposed Work Program (A) Drilling Back Creek-Leura

Drilling at Back Creek-Leura soil geochemistry targets– program yet to be designed and budgeted.

8.2 Proposed Work Program (B) Lefroy Forest Soil Survey

The Lefroy Forest AOI is highly conceptual and based solely on the mapped structures in the area. It is recommended that a series of closely spaced soil samples be taken across the faulted fold hinge to test for any anomalous Au, or other evidence of a Au-bearing hydrothermal system.

8.3 Proposed Work Program (C) Den Ranges Mapping and Rock Chip Sampling

The Den Ranges AOI was selected for its mapped Au mineral occurrences along a major structure. Reconnaissance mapping and rock chip sampling at the Den Ranges AOI is recommended to ascertain its significance and whether it justifies further work. Reconnaissance work will also be conducted at 'Rockliffs', a mineral occurrence north of the Lefory Goldfield and along strike of one of the structures of interest at Lefroy Forest AOI.

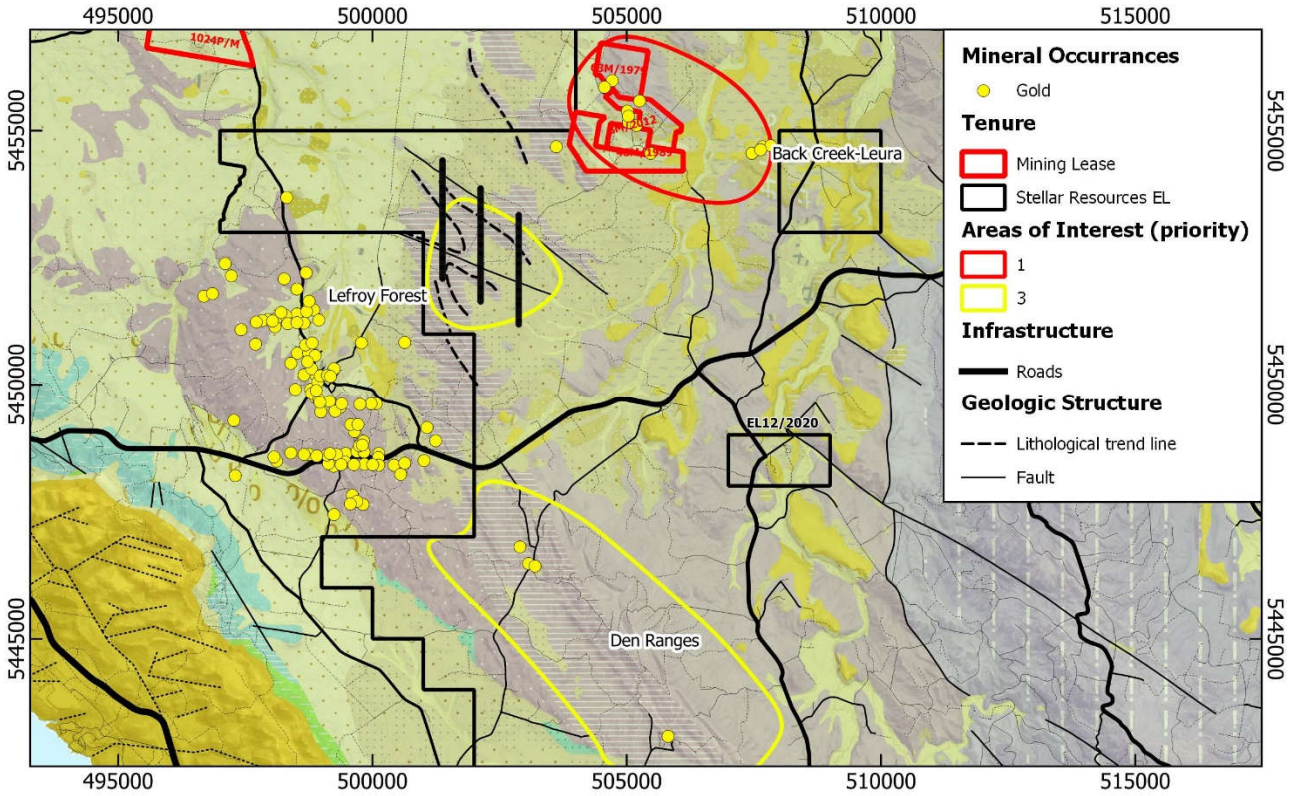

Figure 11. EL12/2020 Proposed Work Programs over Areas of Interest

9 ENVIRONMENTAL MANAGEMENT

9.1 Recommendations

Vegetation cutting for access to sample sites has been the only environmental disturbances occurring from exploration activities. No recommendations required.

10 EXPENDITURE

10.1 Regional Expenditure

Tarcoola Iron Pty Ltd, hold eight exploration tenements in northeast Tasmania that have a reporting period of 16 August 2021 to 15 August 2022. Expenditure reporting has been reported to a 31 July 2022 cut-off date to enable time to completed expenditure reporting by 15 August 2022 reporting date. The following year's expenditure report will include expenditure from 1 August 2022 to 31 July 2023. The table below outlines expenditure over all eight of Tarcoola's tenements.

Table 5. Regional Expenditure for the reporting period by Licence

LICENCE NUMBER	TENEMENT NAME	AREA (km^2)	EXPENDITURE FOR PERIOD	EXPENDITURE / Km^2
EL 11/2020	Bridport Road	238	$ 94,911	$399
EL 12/2020	Pipers River	246	$ 200,042	$813
EL 13/2020	Lilydale	242	$ 37,204	$154
EL 14/2020	Nunamara	247	$ 47,898	$194
EL 15/2020	Scottsdale	246	$ 38,407	$156
EL 16/2020	Camden Road	248	$ 48,396	$195
EL 17/2020	Mt Saddleback	241	$ 38,758	$161
EL 18/2020	Peppermint Hill	195	$ 32,901	$169
TOTALS		**1,903**	**$ 538,517**	**$283**

10.2 Exploration Licence Expenditure

7Expenditure on EL 12/2020 by Tarcoola Iron Pty Ltd during the reporting period of 16 August 2021 to 15 August 2022 is detailed in the table below.

Table 6. EL 12/2020 expenditure by category for the reporting period

MRT REPORTING CODE	CATEGORY	EL 12/2020
1.1	Geology*	$151,222
1.2	Geochemistry	$35,869
1.3	Geophysics	$1,470
1.4	Remote sensing	
2.1	Drilling - Gridding	
2.2	Drilling	
3.0	Land access	
4.0	Rehabilitation	
5.0	FS costs	
6.0	Other costs	$11,482
7.0	Administration/overheads	
TOTALS		**$200,042**

* Geology costs include geology and field support costs, travel accommodation and meals for soil sampling and stream sediment sampling programs.

11 REFERENCES

For historic references see section 4.1 compiled by Adrian Rigg. All historic listings are referenced by Company, Year, Location, and the relevant Report Number.

Bottril, R.S., Taheri, J., Keele, R.A., and McClenaghan. 1994, A field guide to gold deposits in northeastern Tasmania, Mineral Resources Tasmania REPORT 1994/149

Reed, A.R., 2004, Gold mineralisation and the regional Palaeozoic structure of the Mathinna Supergroup, eastern Tasmania, Mineral Resources Tasmania REPORT 2004/01

Seymour, D.B., Woolward, I.R., McClenaghan, M.P., Bottril, R.S. 2011, Stratigraphic revision and re-mapping of the Mathinna Supergroup between the River Tamar and the Scottsdale Batholith, northeast Tasmania, Mineral Resources Tasmania, Tasmania.

APPENDICES

Appendix A Phil Muir, Southern Mineral Exploration Geophysics, Nov 2020 – Jan 2021.

Reprocessing of aeromagnetic, radiometric and gravity surveys over tenements held by Tarcoola Iron, NE Tasmania.

Appendix B Ross Corben, Geowiz Consulting, Oct 2020.

Geochemical data (Adrian Rigg, MRT). Tarcoola Iron, Initial exploration Microsoft Access database.

Appendix C Ross Corben, Geowiz Consulting, July 2022.

EL 12/2020, Geochemical data. Tarcoola Iron, Microsoft Access database.