EL18/2018
TELEGRAPH CREEK, TASMANIA

FIRST ANNUAL REPORT

FOR THE YEAR ENDED
27 MARCH 2020

LICENSEE:
PACIFIC TRENDS RESOURCES PTY LTD
IN JOINT VENTURE WITH:
KINGFISHER EXPLORATION PTY LTD

Prepared by:
S. Westbrook
March 2020

TASMETALS
JOINT VENTURE

EXECUTIVE SUMMARY

EL18/2018 covers 94 square kilometers of ground in the vicinity of Telegraph Creek, near Gladstone in NE Tasmania that is considered prospective for orogenic gold style deposits. The project is currently operated and funded through the Tasmetals Farm-in and Joint Venture (Tasmetals JV) between Kingfisher Exploration Pty Ltd (KFE) and Pacific Trends Resources Pty Ltd (PTR). PTR is wholly funding the exploration programs. This report documents exploration activities carried out in the first year of tenure during the period 28th March 2019 to 27th March 2020.

Exploration activity undertaken for EL18/2018 during the reporting period included:

- Historical prospecting/exploration activity data search;
- Reprocessing and imaging of regional gravity and airborne magnetic data;
- Desktop review and target generation;
- Land owner notifications commenced.

Interpretation from imaged magnetic data indicates significant NNW- and NW-trending structures traverse the project area. Several large magnetic features trend parallel to the interpreted NNW structures and are hosted in a wedge of Mathinna Group sediments bounded by the Gardens Pluton to the west and the Eddystone Batholith granites to the east. Modelling of these magnetic features indicates a series of steeply dipping tabular magnetic bodies with magnetic susceptibilities ranging from 2 to 3 orders of magnitude higher than normal Mathinna Group sediment ranges. This would be consistent with magnetite or pyrrhotite alteration of discrete beds or units within the Mathinna Group sediments but could also be explained by basalt or dolerite bodies. Geological mapping is required to properly assess these features.

Land owner notification and the reconnaissance mapping program that had been planned for early-2020 was delayed due to the coronavirus COVID19 situation and is anticipated to commence in year 2 of the licence tenure.

Recommendations for exploration work during the second year of tenure include:

- Geological reconnaissance and district-scale mapping and sampling, with priority to investigate the NNW-trending magnetic features;
- Soil sampling grids over prospective areas if identified from the reconnaissance geological mapping and sampling;
- Possible trenching pending results of geological mapping and soil sampling.

Land owner notifications will be re-commenced in during mid-2020 with a view to start the field mapping program as soon as personnel availability permits and restrictions related to the coronavirus are eased.

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1 INTRODUCTION

This report is the first Annual Report for EL18/2018 located near Gladstone in NE Tasmania (Figure 1). EL18/2018 covers 92 square kilometers of ground that is considered prospective for orogenic gold deposits based on proximity to mineralisation in the adjacent EL11/2012 and EL18/2016. This report documents exploration activities completed over the 12 months ending 27th March 2020 (the Reporting Period).

EL18/2018 and the two adjacent EL's 11/2012 and 18/2016 altogether make up the Portland Gold Project.

The project is currently operated and funded through the Tasmetals Farm-in and Joint Venture (Tasmetals JV) between Kingfisher Exploration Pty Ltd (KFE) and Pacific Trends Resources Pty Ltd (PTR). PTR is wholly funding the exploration programs.

All maps and location coordinates contained within this report are presented in GDA94 datum format unless otherwise noted.

1.1 EXPLORATION RATIONALE

The main exploration target for EL18/2018 is for Victorian-style, turbidite-hosted orogenic gold deposits. Numerous studies indicate that northeastern Tasmania can be interpreted to represent a lateral equivalent of the turbidite-dominated fold-thrust belt of the western Lachlan Orogen in central Victoria (e.g. Bierlein et al, 2005). The turbidite successions of northeastern Tasmania are host to extensive orogenic style gold mineralisation and numerous historical goldfields but are largely un-explored compared to the Victorian goldfields.

Recent work by Tasmetals JV within the adjacent EL11/2012 and EL18/2016 has identified multiple exploration targets and the EL18/2018 has been acquired to test for a possible eastwards continuation of the system.

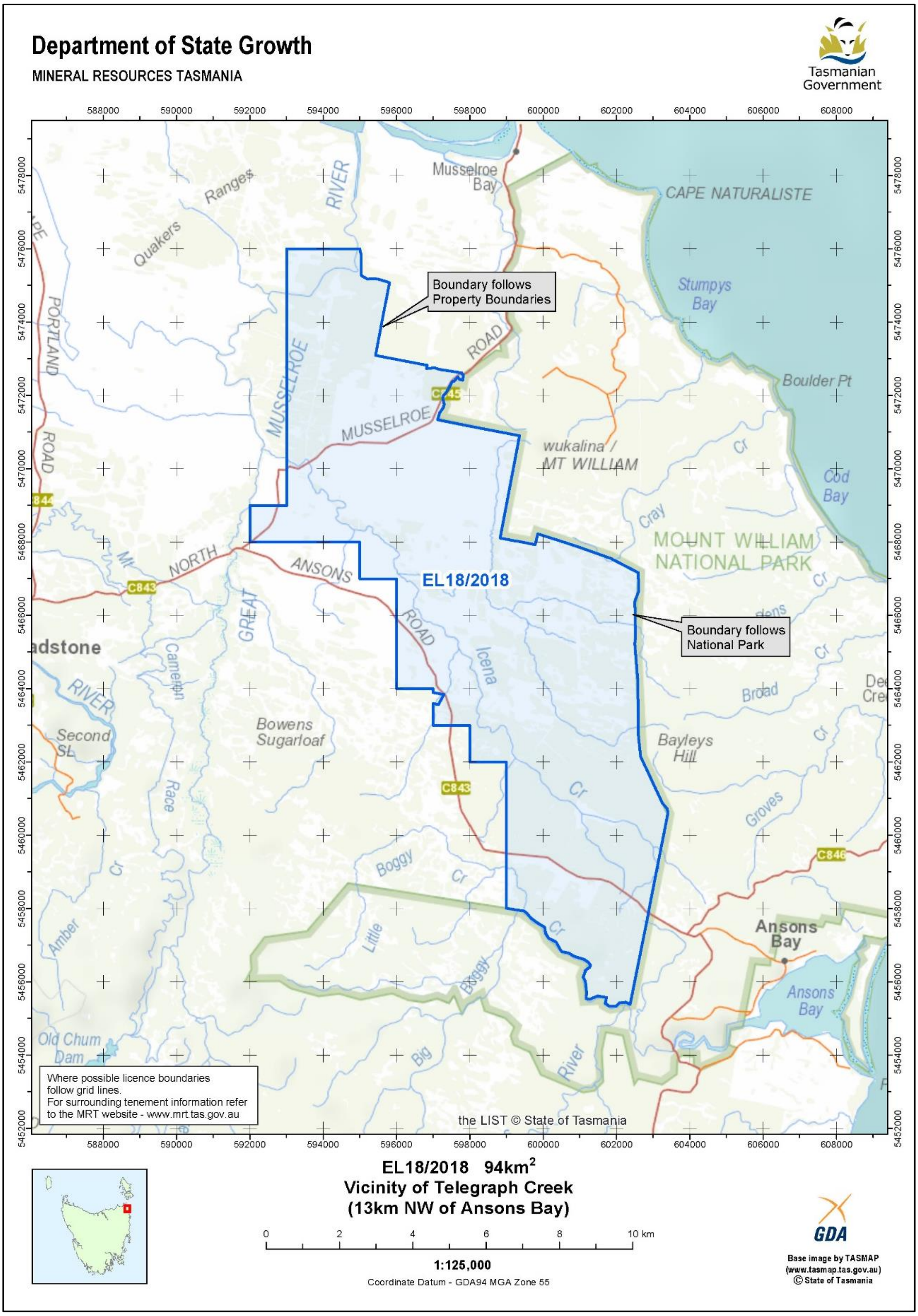

Figure 1. Location plan showing the EL18/2018 tenement area.

1.2 GEOLOGICAL SETTING

Figure 2 shows the simplified geology of the EL18/2018 tenement and Portland Gold Project area.

The Paleozoic geology of northeastern Tasmania comprises a 5 to 7 km thick, deformed sequence of Ordovician-Silurian (to early Devonian) aged turbidites known as the Mathinna Supergroup (or “Mathinna Group”). Rocks of the Mathinna Group were folded and metamorphosed to sub- to mid-greenschist facies during the Early to Middle Devonian. Several extensive S- and I-type granitoid batholiths (namely the Scottsdale, Blue Tier and Eddystone Batholiths) intruded the Mathinna Supergroup during Late Devonian times (around 400 Ma to 375 Ma). The granitoids are surrounded by narrow metamorphic aureoles indicative of intrusion at relatively high crustal levels. The Mathinna Supergroup and granitoid rocks are unconformably overlain by flat-lying Permo-Triassic rocks of the Parmeener Supergroup which are intruded by sills of Jurassic dolerite. Exhumation and weathering during the Tertiary was accompanied by basaltic volcanism.

Historical gold workings in the Gladstone-Portland district comprise gold-bearing quartz-sulphide vein lodes hosted within the deformed and metamorphosed turbidite shales, sandstones and quartzite of the Mathinna Supergroup sediments.

Aeromagnetic and radiometric surveys flown over the Gladstone-Portland district have assisted with interpretation of local- and district-scale structural trends within the Mathinna Group and boundaries with the Devonian granitoids and associated contact metamorphism. Significant variation in the magnetic properties of the Mathinna sediments appears to be due to metamorphic magnetite alteration of quartz phyllite units (Roach, 1990), and in some areas (EL11/2012) has allowed for magnetite-bearing marker units to be used to interpret folds and faults which are not immediately apparent at surface.

Large magnetic features identified within EL18/2018 are apparently hosted in hornfelsed Mathinna Supergroup rocks and suggest extensive magnetite alteration in the area. However, alternative magnetic source rocks such as basalt or dolerite have not been entirely ruled out.

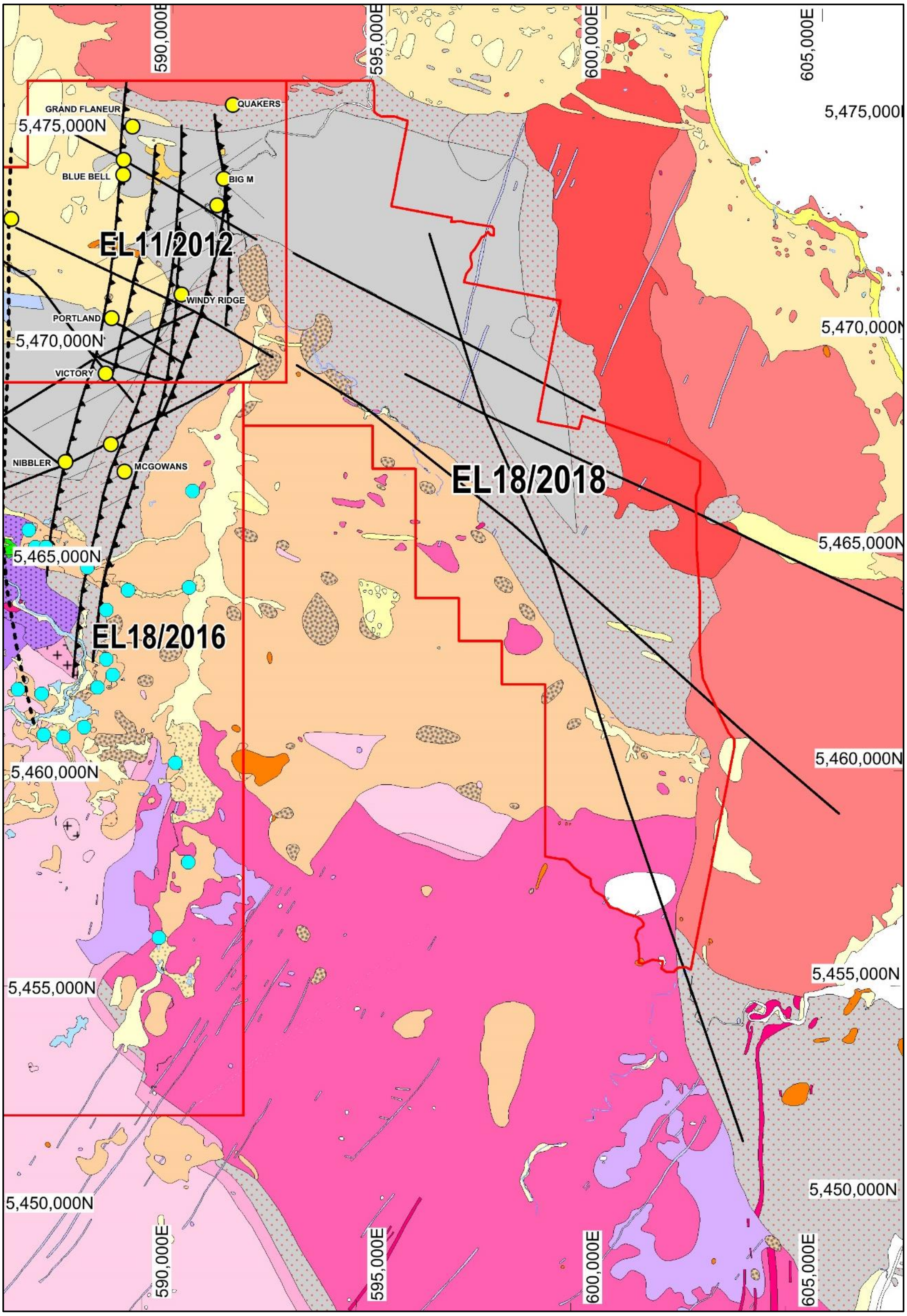

Figure 2. Geology map of the tenement area (adapted from the MRT 1:25,000 scale digital geology).

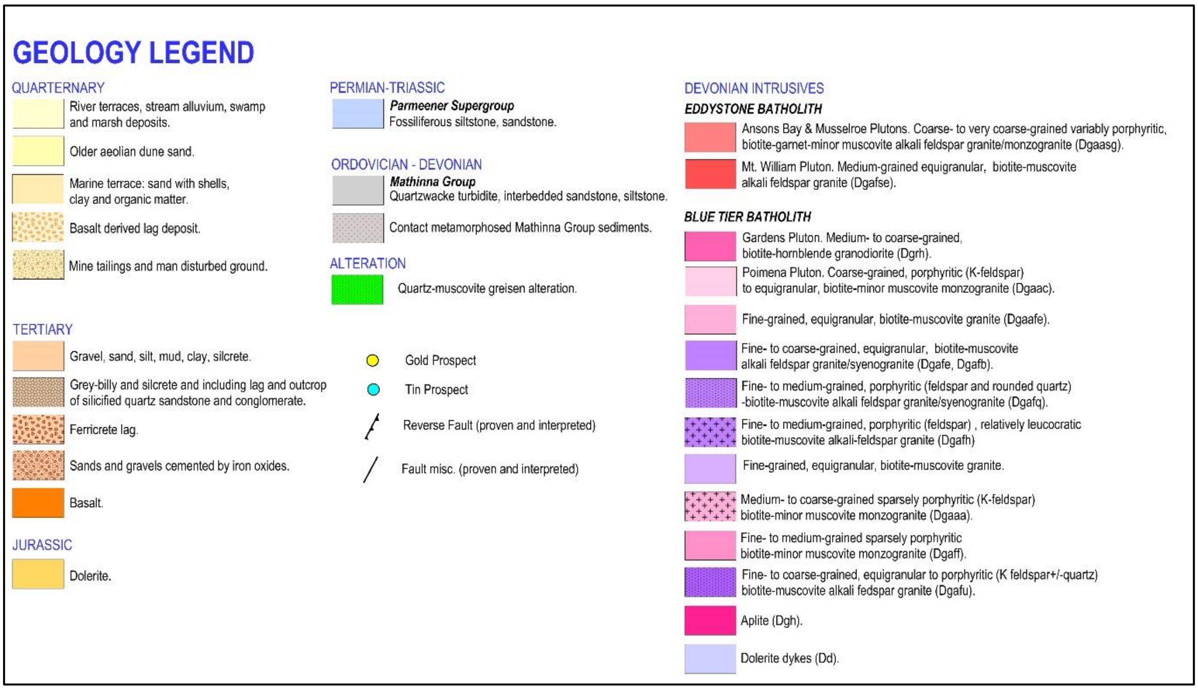

Figure 3. Explanatory legend for the geology map in Figure 2.

1.3 MINERALISATION STYLES

The Mathinna Group rocks in northeastern Tasmania are host to over 600 gold prospects and deposits, the most significant of which are Beaconsfield (3.25 Mt @ 19.0 g/t Au), the New Golden Gate mine (0.51 Mt @ 15.6 Mt Au) and Pinafore Reef, Lefroy (0.97 Mt @ 10.1 g/t Au). Most of the deposits are orogenic mesothermal to epizonal vein-style and occur in clusters along regional NNW trends. Intrusion-related gold (IRG) style mineralisation is noted to occur in the Lisle-Golconda and Golden Ridge areas. Significant Sn-W deposits are associated with S- and I-type granites and northeastern Tasmania was a historical tin mining region.

Orogenic style gold mineralisation in northeastern Tasmania is attributed to deformation, folding and peak orogeny in the Early to Middle Devonian, at about 390 Ma, with most of the vein deposits formed between 385 Ma and 395 Ma (Bierlein et al. 2005). An earlier phase (420-430 Ma) of gold mineralisation during the Silurian has also been noted in some deposits. Based on lithological, structural, tectonic and metallogenetic similarities, northeastern Tasmania has been interpreted as a lateral correlate of the turbidite-dominated fold-thrust belt of the western Lachlan Orogen in central Victoria (Bierlein et al. 2005). Timing of gold mineralisation in NE Tasmania shows a broad relationship to the epizonal Au-As-Sb deposits of central Victoria (Melbourne Zone) (Figure 4).

Gold mineralisation in the Portland area (EL's 11/2012 and 18/2016), adjacent to EL18/2018, shows a close association with arsenopyrite and to a lesser extent pyrite. These sulphides occur as fine- to coarse-grain euhedral disseminations throughout mineralised quartz veins and adjacent altered sediments. Many of the historical gold workings at Portland are located on or adjacent to interpreted fold axes and/or axial-planar N-S to NNE trending reverse fault structures. Extensive silicified, fractured/brecciated and quartz-veined sandstone units locally intersected these structural trends and form an important stratigraphic control/host to the Portland gold mineralisation (Westbrook, 2019).

Geochemistry of surface samples at Portland indicates an As-(Sb-Bi) association with gold mineralisation. The Au-As-Sb association and general timing of NE Tasmanian gold mineralisation has drawn comparisons with the epizonal gold system of central Victoria (Figure 4).

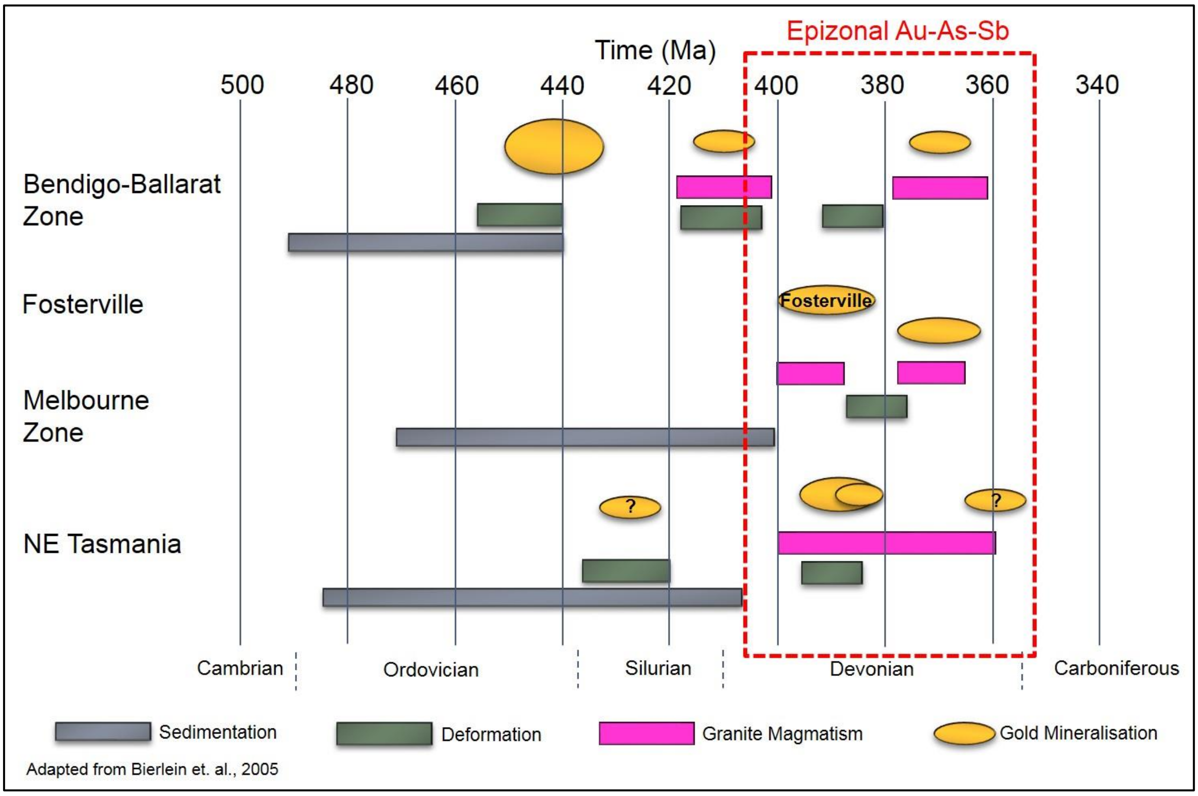

Figure 4. Summary diagram of the timing of sedimentation, deformation, granite magmatism and gold mineralisation events in central Victoria and NE Tasmania. Adapted from Bierlein et al (2005).

2 REVIEW OF PREVIOUS WORK

A search of available data has revealed no record of historical prospecting/mining or modern-day mineral exploration activity within the EL18/2018 area. There are no historical workings, economic mineral occurrences, or drillholes indicated from the MRT databases.

The area has been covered (or partly covered) by the following airborne geophysical surveys:

- 1985 Regional Tasmania airborne magnetics survey (AGSO) – 1500m line spacing;
- 1987 Gladstone airborne magnetic-radiometric survey (Placeco) – 125m line spacing;
- 2007 NE Tasmania airborne magnetic-radiometric survey (TGS) – 200m line spacing.

3 EXPLORATION COMPLETED DURING REPORTING PERIOD

Exploration activity undertaken during the reporting period included:

- Historical prospecting/exploration activity data search (see Section 2);
- Reprocessing, imaging and modelling of regional gravity and airborne magnetic data;
- Desktop review and target generation;
- Land owner notifications commenced.

3.1 GEOPHYSICAL DATA PROCESSING

Western Geophysics Pty Ltd (WGPX) were engaged by the Tasmetals JV to complete processing, analysis and interpretation of regional to district scale magnetic and gravity data obtained from open file sources covering northeast Tasmania and the Portland Gold Project area (report attached as Appendix I).

In a separate investigation, WGPX took a detailed look at the NNW-trending magnetic anomalies within the Mathinna Group sediments in EL18/2018 (report attached as Appendix II). WGPX concluded that based on model calculations using 3D inversion and forward methods, magnetic susceptibility values of the source bodies to the anomalies are 2 to 3 orders of magnitude higher than normal Mathinna Group sediment ranges and that magnetic anomalies with coincident gravity anomalies may suggest mass additional due to magnetite and/or pyrrhotite. Taking geological considerations into account, it is possible that at least some of these anomalies may be due to basalt or dolerite bodies, however, this was not considered by WGPX. Additionally, the gravity “anomalies” are not necessarily anomalous for Mathinna group sediments. Field reconnaissance is planned and will hopefully shed more light on the source of the magnetic features.

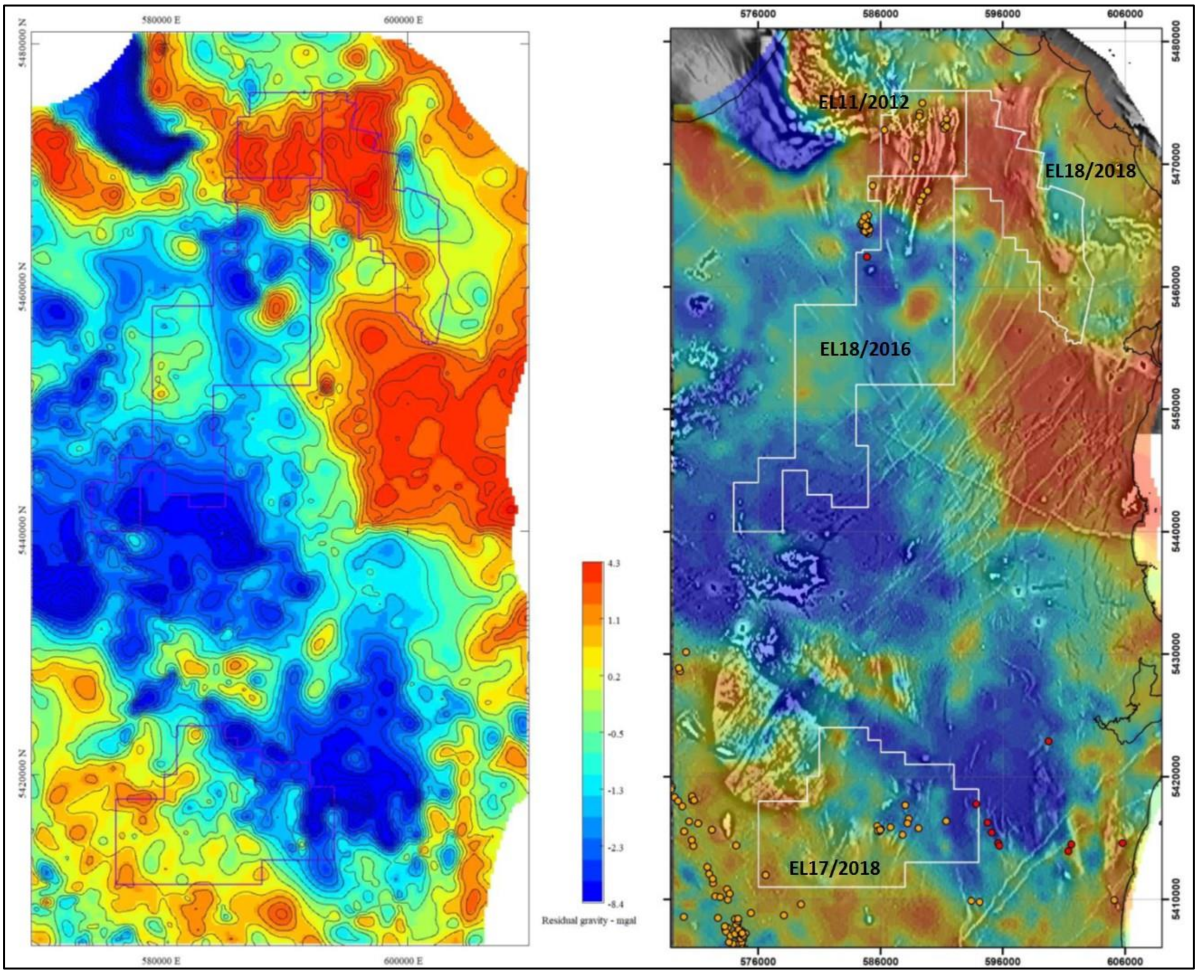

Figure 5. Images of regional residual gravity(left) and residual gravity with greyscale first vertical derivative magnetics (right). Gold occurrences shown as yellow circles.

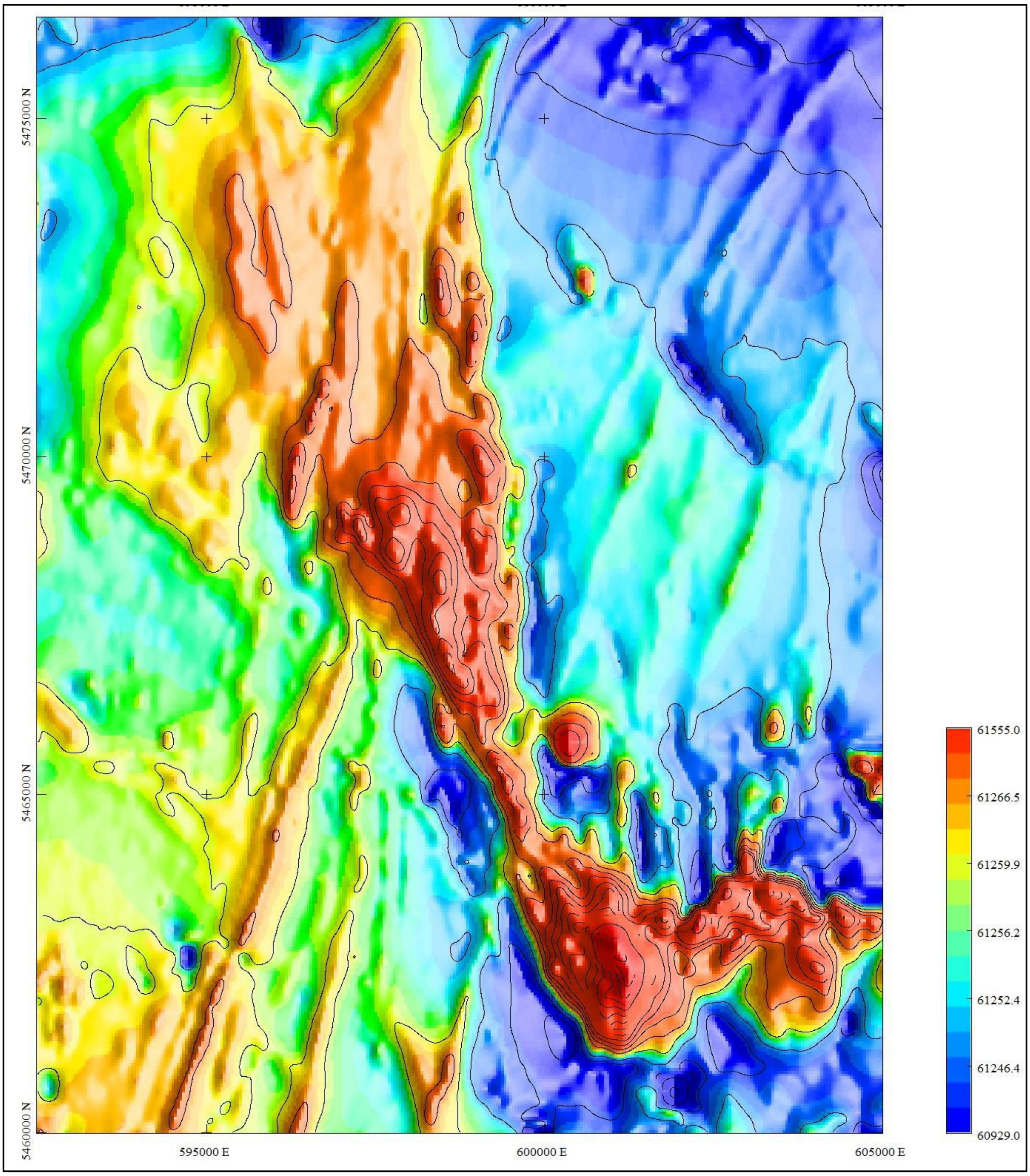

Figure 6. Imaged and contoured total magnetic intensity (TMI) showing the NW-trending magnetic features hosted in Mathinna Group sediments within EL18/2018.

3.2 DESKTOP REVIEW AND TARGETING

Due to the limited amount of historical data, desktop review and targeting was restricted to the available government geological and airborne geophysical data sets.

The large magnetic features above are the obvious priority targets to be assessed with field reconnaissance mapping and sampling. Otherwise, given the group's exploration experience that outcrop is generally more common than typically realised in the wider Portland Gold Project area, it is recommended that the whole of EL18/2018 should be covered by reconnaissance geological mapping and sampling. Prospective areas should be followed up with soil sampling and then trenching.

3.3 LANDOWNER NOTIFICATIONS

Landowner notifications for the planned reconnaissance mapping exploration program over EL18/2018 was commenced during late 2019 but the notification/meetings process and therefore the planned exploration program was subsequently delayed due to the coronavirus COVID19 situation. It is anticipated that the program will be able to be recommenced in the latter half of 2020.

4 DISCUSSION OF RESULTS

EL18/2018 is thought to be prospective for a possible eastern extension of the Portland Goldfield that is currently being explored by Tasmetals JV under the adjacent 11/2012 and 18/2016 Exploration Licenses.

Interpretation from imaged magnetic data indicates a significant NNW-trending structure lies adjacent to the Mathinna Group - Gardens granitoid pluton. Large NW-trending structures are also evident and are consistent with NW-trending cross-course structures observed in EL11/2012. Several large magnetic features trend parallel to the interpreted NNW structure and are hosted in the wedge of Mathinna Group sediments bounded by the Gardens Pluton to the west and the Eddystone Batholith granites to the east.

Modelling of these magnetic features indicates a series of steeply dipping tabular magnetic bodies with magnetic susceptibilities ranging from 2 to 3 orders of magnitude higher than normal Mathinna Group sediment ranges. This would be consistent with magnetite or pyrrhotite alteration of discrete beds or units within the Mathinna Group sediments, probably due to thermal contact metasomatism associated with the granites. However, possible basalt or dolerite sources to the magnetic features cannot be discounted and geological mapping is required to properly assess these features.

The EL18/2018 reconnaissance mapping program, scheduled for early-2020, was delayed due to the coronavirus COVID19 situation and is anticipated to commence in year 2 of the licence tenure.

5 CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE WORK

EL18/2018 remains to be considered prospective for gold mineralisation of the style observed at the Portland goldfield. While there is no record of historical mining or prospecting in the area, it is also apparent that probably there has been no modern-era exploration carried out and therefore the area is practically virgin ground.

The NNW-trending magnetic features that are apparently hosted in Mathinna Group sediments are considered priority targets for reconnaissance geological mapping and surface geochemical sampling programs to be carried out in the second year of the tenement license.

Recommendations for ongoing exploration work in Year 2 of the licence include:

- Geological reconnaissance and district-scale mapping and sampling over the EL, with priority to investigate the NNW-trending magnetic features;
- Soil sampling grids over prospective areas if identified from the reconnaissance geological mapping and sampling;
- Possible trenching pending results of geological mapping and soil sampling.

Land owner notifications will be re-commenced with a view to start the field mapping program as soon as personnel availability permits and restrictions related to the coronavirus are eased.

6 ENVIRONMENT

There was no environmental disturbance within EL18/2018 due to exploration activities during the reporting period.

7 EXPENDITURE

Exploration expenditure over the first annual report period for EL18/2018 is summarized in Table 1. The exploration commitment for the first two years of tenure is $47,000.

	ITEM	**EXPENDITURE (AUD)**
1.	GEOSCIENTIFIC COSTS Geology Geochemistry Geophysics Remote Sensing	 $ 4,200 $ 0 $ 4,350 $ 0
2.	DRILLING AND GRIDDING COSTS Gridding Drilling	 $ 0 $ 0
3.	LAND ACCESS COSTS	$ 1,200
4.	REHABILITATION COSTS	$ 0
5.	FEASIBILITY STUDY COSTS	$ 0
6.	OTHER COSTS Field supplies and equipment, rental, bond and application fees	 $ 12,122
7.	ADMINISTRATION COSTS Administration and Legal	 $ 500
	Total Expenditure	**$ 22,372**

Table 1. Exploration expenditure on EL18/2018 during the reporting period.

8 REFERENCES

Bierlein, F.P., Foster, D. A., Gray, D. R., Davidson, G. J. (2005). Timing of orogenic gold mineralisation in northeastern Tasmania: implications for the tectonic and metallogenetic evolution of Palaeozoic SE Australia. Mineralium Deposita 39: 890-903.

Bierlein, F.P., Fuller, T., Arnes, D.C., and Keays, R.R. 1998. Wallrock alteration associated with turbiditic-hosted gold deposits. Examples from the Palaeozoic Lachlan Fold Belt in central Victoria, Australia.

Massey, S. 2019. Airborne and Ground Geophysics – Processing and Interpretation, Portland and Golden Ridge Projects. Report to Pacific Trends Resources by Western Geophysics Pty Ltd, June 2019.

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Roach, M.J. 1997. Detailed Ground Magnetic Surveys in the Gladstone and Denison Areas, N.E. Tasmania, EL 15/95. Unpublished report Anglo Australian Resources NL, University of Tasmania. [98_4245A].

Westbrook, S.J. 2019. Seventh Annual Report, EL11/2012 Gladstone Tasmania.

APPENDIX I

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25th[th] June 2019.

RE: -Airborne and Ground Geophysics -Processing and Interpretation. - Portland and Golden Ridge Projects

1. Summary

Western Geophysics Pty Ltd (WGPX) has completed the processing, analysis and interpretation of magnetic and gravity data obtained from open file sources covering northeast Tasmania.

The aim of the work completed here is to process and interpret the airborne and ground geophysical data, improve geological interpretation at district and project scale and if possible determine the signature of existing mineralisation-alteration and, therefore determine the best way forward in future exploration work using additional geophysical surveys.

The approach and method used includes online data acquisition from federal and state web sites, data processing, imaging, data integration within ARCGIS including key geological elements and interpretation at regional, district and project scale.

Two compelling target areas are identified in this work. The targets are identified are coincident magnetic and sharpened residual gravity anomalies trending NNE-SSW in EL 11/2012 and, the extensive coincident magnetic and gravity anomalies within EL 18/2018 that are marginal and adjacent to the Eddystone batholith. The magnetic and gravity anomalies are interpreted as being due to magnetite and/or pyrrhotite alteration in fault and fold structures within the Mathinna formation.

Based on the magnetic and gravity data, targets within the Golden Ridge project are not so clear. Additional geophysical surveys are recommended to improve geological understanding and to refine interpreted alteration-mineralisation targets to guide drilling.

2. Introduction and Background

Pacific Trends and Kingfisher are in joint venture in two project areas in northeast Tasmania. The locations of the project tenements are shown on Figures 1 with gold and tin mineral occurrences.

The northern group of 3 exploration tenements near the town of Gladstone comprise the Portland project and the southern tenement is referred to as the Golden Ridge project.

Gold in quartz vein style deposits in north east Tasmania are hosted by the extensive folded and faulted turbidite sequences of the Mathinna Group (Figure 2). The Mathinna turbidites were deposited and deformed in the Ordovician and Devonian. The sequence is intruded by post orogenic Devonian granitoids. Some of the gold deposits are considered to be spatially and genetically related to the granitoid intrusions. At deposit scale, gold mineralisation within the Portland project area near Gladstone, occurs in anticlinal axis and is locally controlled by NW-SE trending faults (Roach -Phd. 1994).

The granitoids host primary tin deposits and these are the source for numerous colluvial and alluvial tin occurrences, small workings and mines. Intrusions are classified as I-type and S-type granites and, I-type granodiorites as shown on (Figure 2). The classification was derived from the ARCGIS database of the geology of Tasmania at 1:250,000 scale.

Physical property work by Roach(1994) show granites have a relatively low density, averaging 2.61 T/m^3 and are non-magnetic. Granodiorites have a mean density of 2.71 T/m^3. The Mathinna Group rocks have a mean density of 2.71 T/m^3. and are weakly magnetic (0.00019 SI units).

Therefore, there is a strong density contrast between the Mathinna group and the I type and S types granites but not with the granodiorites.

3. Geophysics Surveys and Data Processing.

Gravity Surveys, Data Processing and Interpretation

Gravity data covering northeast Tasmania were acquired via download from Geoscience Australia. Gravity stations are typically spaced 500m apart within both project areas (Figures 3 and 4). All data in Tasmania are terrain corrected which accounts for gravity variations due to topography.

Residual gravity has been derived by removing a regional field by calculating an equivalent layer in the depth range from surface to a maximum depth 2.0 km. The Fast Fourier Transform filter utilises frequency components of the Bouguer gravity data due to sources of laterally variable density within the specified layer. The longer wavelengths due to sources outside of the layer are excluded and the computed gravity anomalies are referred as residual (see Figure 5). At project scale, a sharpening filter has been applied to the residual gravity data to enhance local structure.

I-type and S-type granites produce residual gravity lows and, I-type granodiorites and Mathinna group turbidites produce gravity highs. Distinctive linear trends within the gravity are oriented NW-SE, NE-SW. Similar trend orientations are evident in the various gold fields, indicating a strong structural control on mineralisation.

Open File Mag-Spec. Surveys and Data Processing.

Open file, airborne magnetic and radiometric surveys cover the entirety of northeast Tasmania. The most useful data include a regional mag-spec survey by GPX Airborne Geophysics (200m line spacing) flown in in 2005 and, also a detailed survey flown by Austirex (125m line spacing) over the Portland project area and surrounds in 1987.The survey outlines are shown on Figures 2 and 3. Total magnetic data (TMI) have been further processed by calculating the first and second derivatives of the TMI to produce grids and images of TMI and TMI1Vdand TMI2Vd.The radiometric data have processed to produce grids and images of potassium, uranium and thorium. All images from the regional airborne surveys are supplied in Geotif format in the GDA94-MGA55 coordinate system.

4. Interpretation.

District scale images of residual gravity and magnetics covering both project areas are shown on Figure 6.

Within EL11/2012 and in the northern end of EL18/2016, gold occurrences in the Portland project area are aligned on NNE-SSW trends in the residual gravity and in the magnetics (Figures 6 and 7). The first vertical derivative of the higher resolution survey shows there is a good spatial correlation of gold occurrences to linear magnetic trends. The 1Vd image also shows distinctive NW-SE oriented linear structures that are interpreted as brittle faults with minor lateral displacement. Given the Mathinna group is essentially non-magnetic, the evidence suggests the magnetic trends are probably due to structurally controlled alteration that includes pyrrhotite and/or magnetite. Similarly, in EL18/2018, coincident magnetic and residual gravity anomaly trends occur within the Mathinna group adjacent and marginal to the Eddystone batholith. The magnetic and gravity anomalies are extensive, projecting into open ground a further 3-5 km to the north east of EL18/2018.

Radiometric potassium anomalies in the northern part of EL18/2016 coincide with gold occurrences and magnetic anomaly trends(Figure 7). This is almost certainly an alteration signature however most radiometric anomalies are interpreted as being associated with regolith cover within alluvial and colluvial settings.

There are several strong potassium anomalies within the I and S type batholiths. These may represent a more potassic phase within the intrusion history.

Primary tin deposits in EL18/2016 are associated with S type granites and secondary tin deposition is both colluvial and alluvial derived from these intrusions.

At the Golden ridge project, gold mineralisation occurs within the Mathinna group rocks near the contact with an I type granite. The gravity data indicate the gold occurrences may be associated fundamental NW-SE structural control however, NE-SW trending weak magnetic anomalies may indicate a secondary control in that orientation.

5. Conclusions and Recommendations.

The aim of the work completed here is to process and interpret the airborne and ground geophysical data, improve geological interpretation at project scale and if possible determine the signature of existing mineralisation and, therefore determine the best way forward in future exploration work using additional geophysical surveys.

Two compelling target areas are identified in this work (see Figure 8). The targets are identified as being areas of coincident magnetic and sharpened residual gravity trending NNE-SSW in EL 11/2012 and, the extensive coincident magnetic and gravity anomalies within EL 18/2018 that are marginal and adjacent to the Eddystone batholith. It is likely the magnetic and gravity anomalies are due to magnetite and/or pyrrhotite alteration in fault and fold structures within the Mathinna formation.

Additional infill gravity and airborne magnetic-radiometric surveys are warranted and recommended if budget permits. These surveys would be planned so lines would be located between existing flight lines (e.g. at 50m spacing) in the case of the airborne survey and additional gravity stations would be located where permissible access is available but generally at a station spacing of 200m. The aim of the work would be to more clearly define the anomalies already identified as targets and to be detailed enough to target these with drilling based on potential field modelling.

Based on the magnetic and gravity data, targets within the Golden Ridge project are not so clear. At Golden Ridge, I would recommend further gravity at this stage to infill the current survey with the aim of mapping structural trends and geology.

An alternative, lower budget program could be to complete detailed lines of ground gravity and ground magnetics over specific targets already identified within the larger target trends. These more focussed surveys would be modelled to determine the location and depth to magnetic and/or gravity anomaly sources for drilling.

FIGURES.

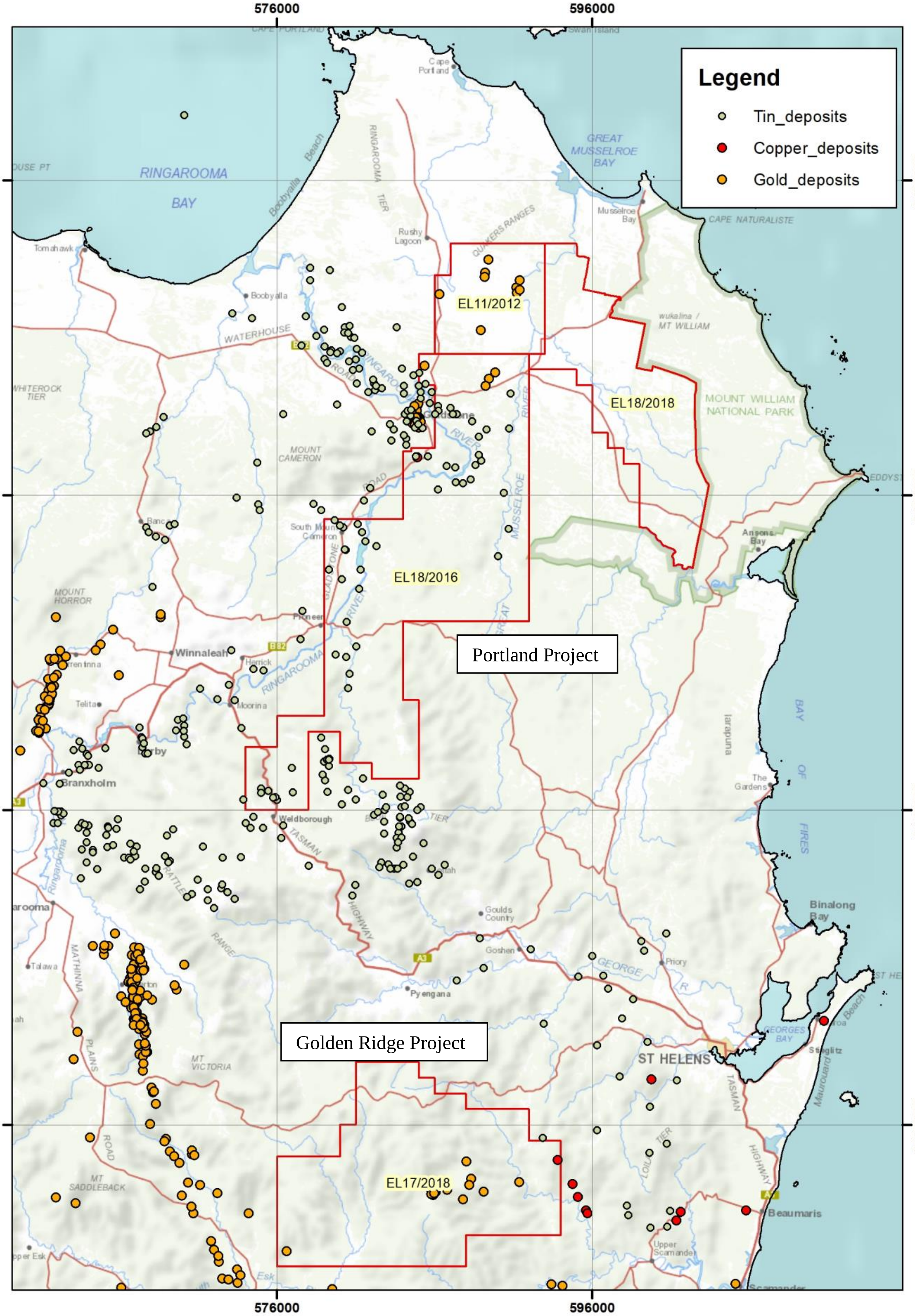

Figure 1. Northeast Tasmania project tenements (red outlines) and mineral deposit locations.

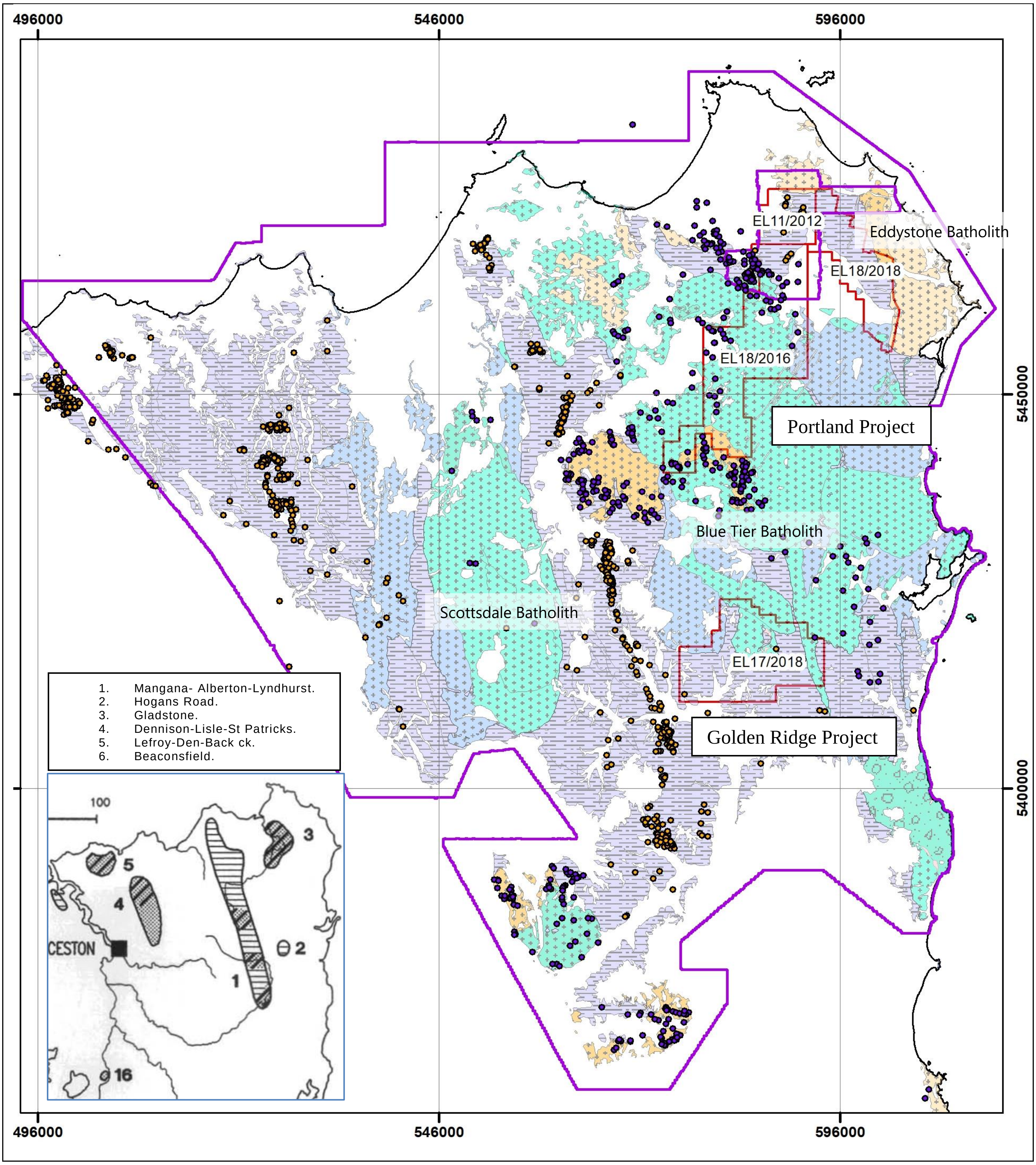

Figure 2. Northeast Tasmania project tenements (red outlines), and goldfields. Regional and detailed mag-spec. survey areas (purple outlines). Gold and Tin mineral occurrences are coloured yellow and blue respectively. Paleozoic rocks shown on the map include, I-type and S-type granites (green and brown), and, I-type granodiorites. Mathinna group turbidites are coloured blue -grey respectively.

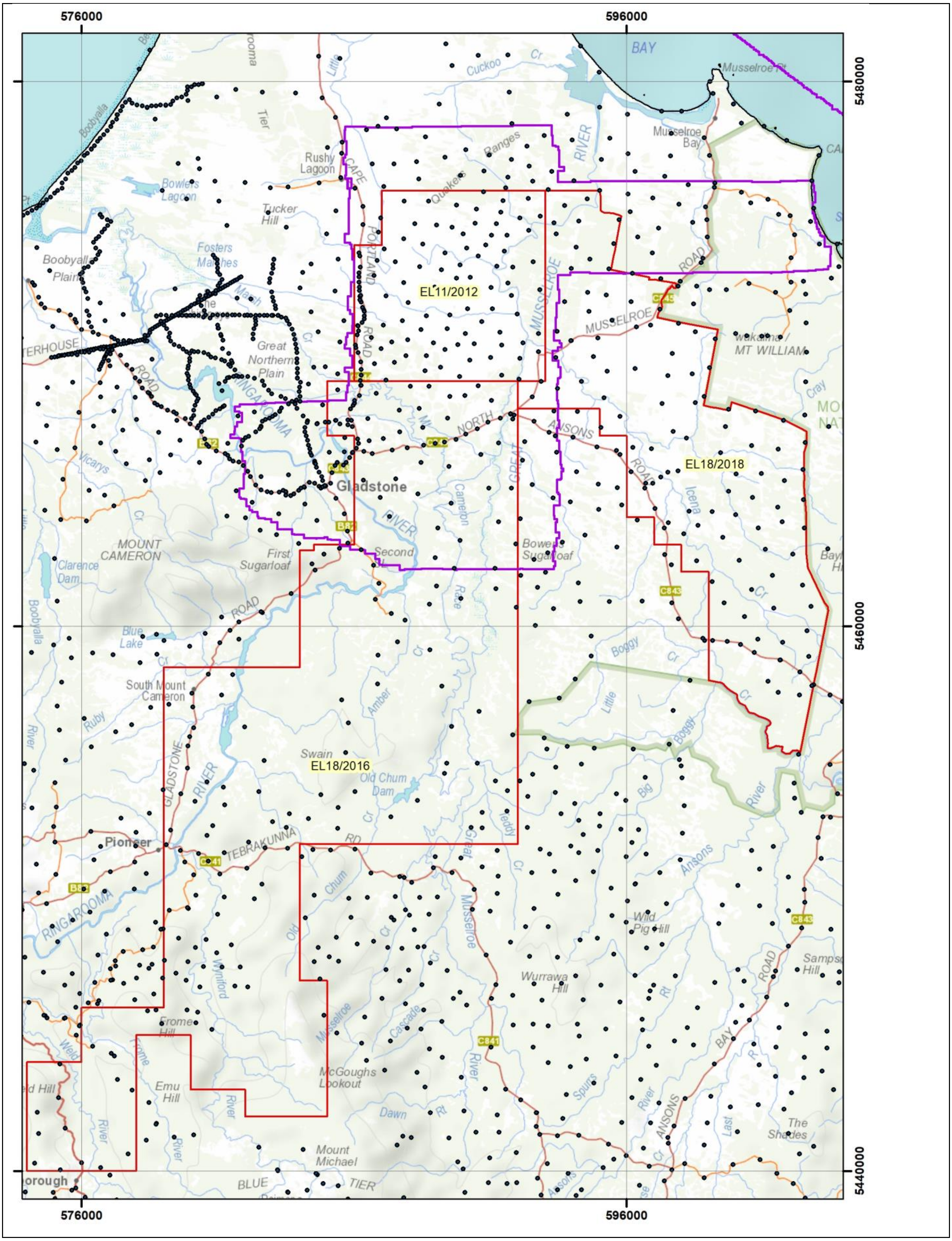

Figure 3. Gravity stations and aeromagnetic -spectrometer surveys within and surrounding the Portman project area.

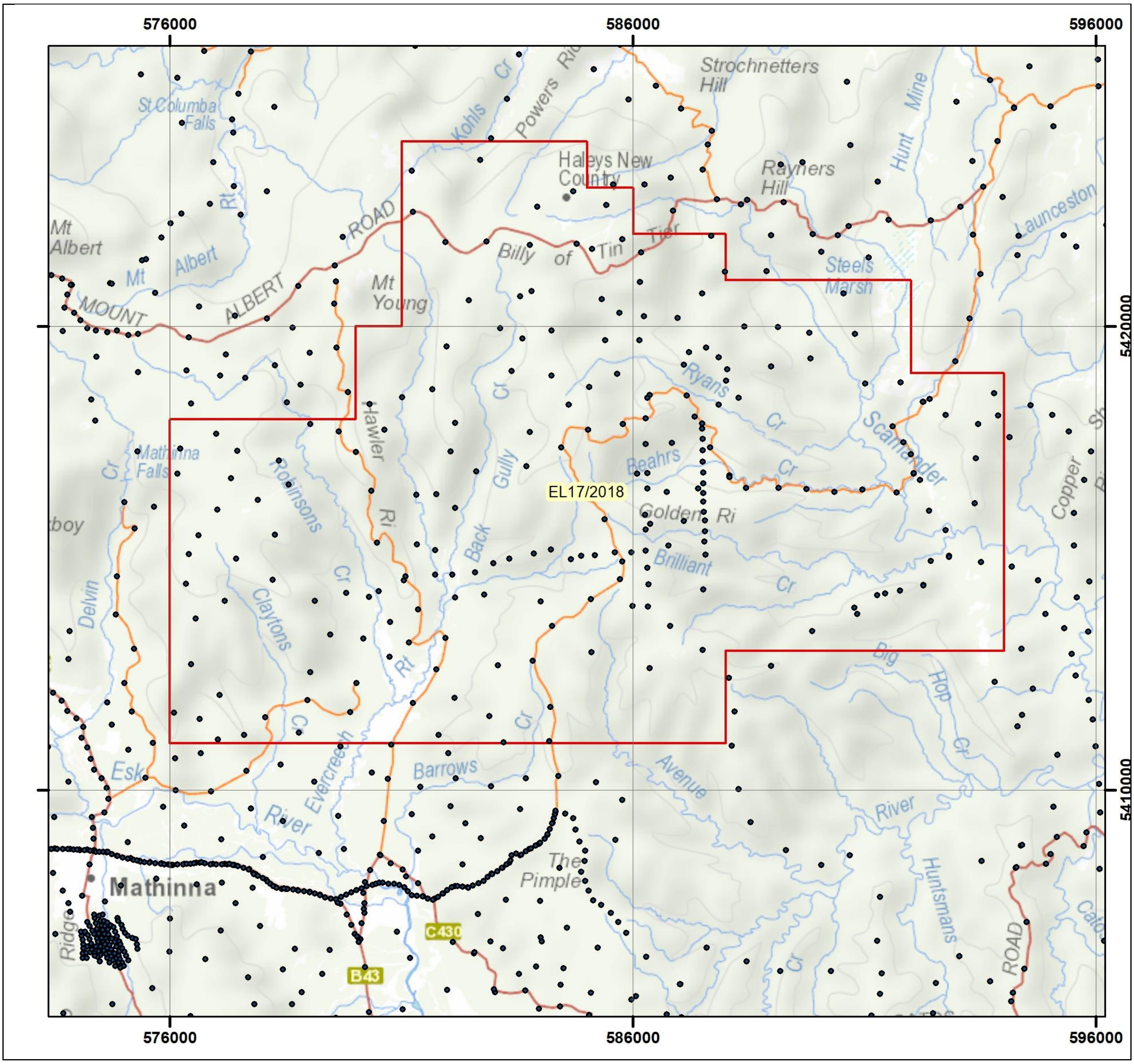

Figure 4. Gravity stations within and surrounding the Golden Ridge project area.

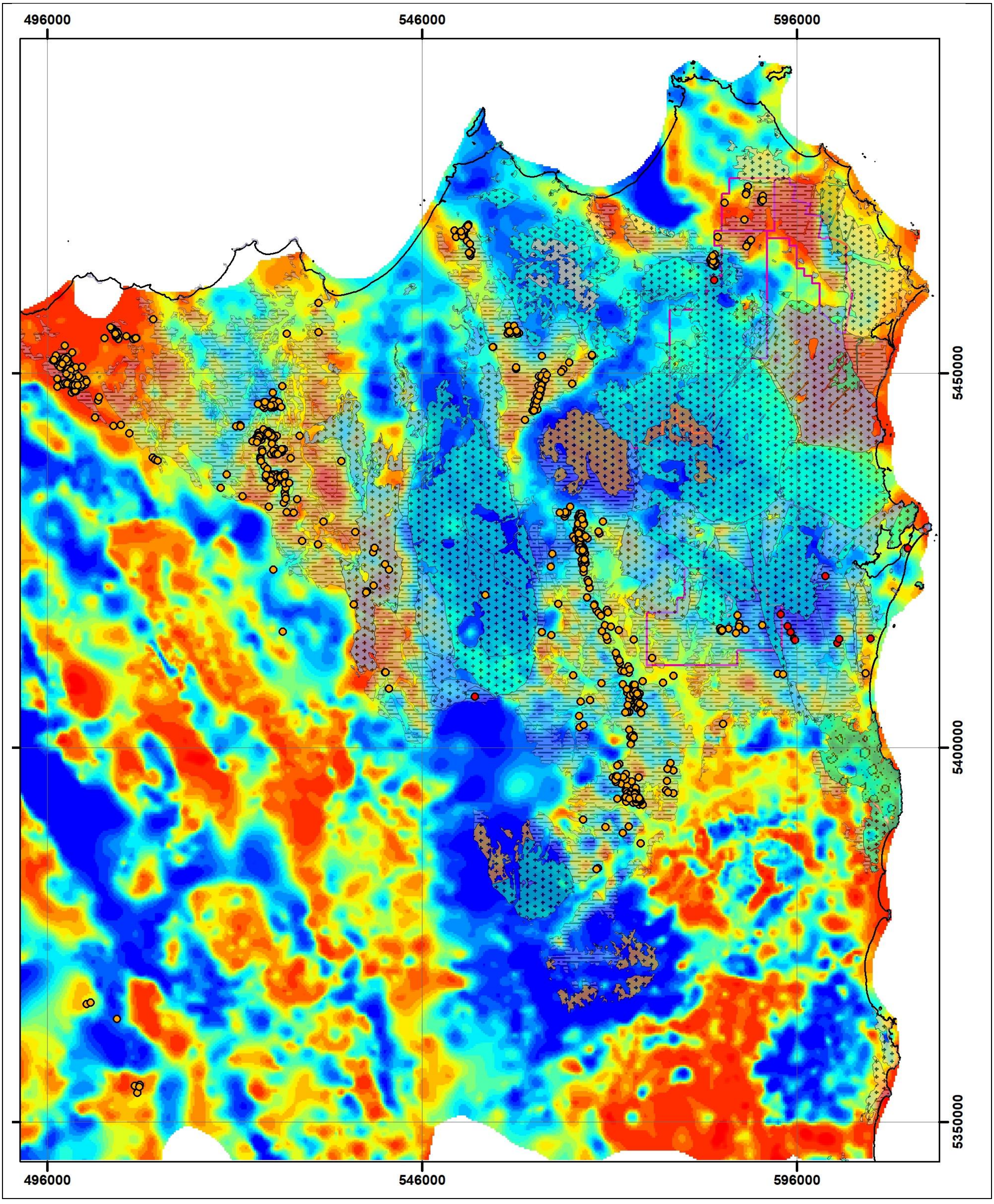

Figure 5. Northeast Tasmania residual gravity image, granitoids Mathinna group turbidites and mineral occurrences. I-type and S-type granites produce residual gravity lows and, I-type granodiorites and Mathinna group turbidites produce gravity highs. Distinctive linear trends within the gravity are oriented NW-SE, NE-SW. Similar trend orientations are evident in the various gold field, indicating strong structural control.

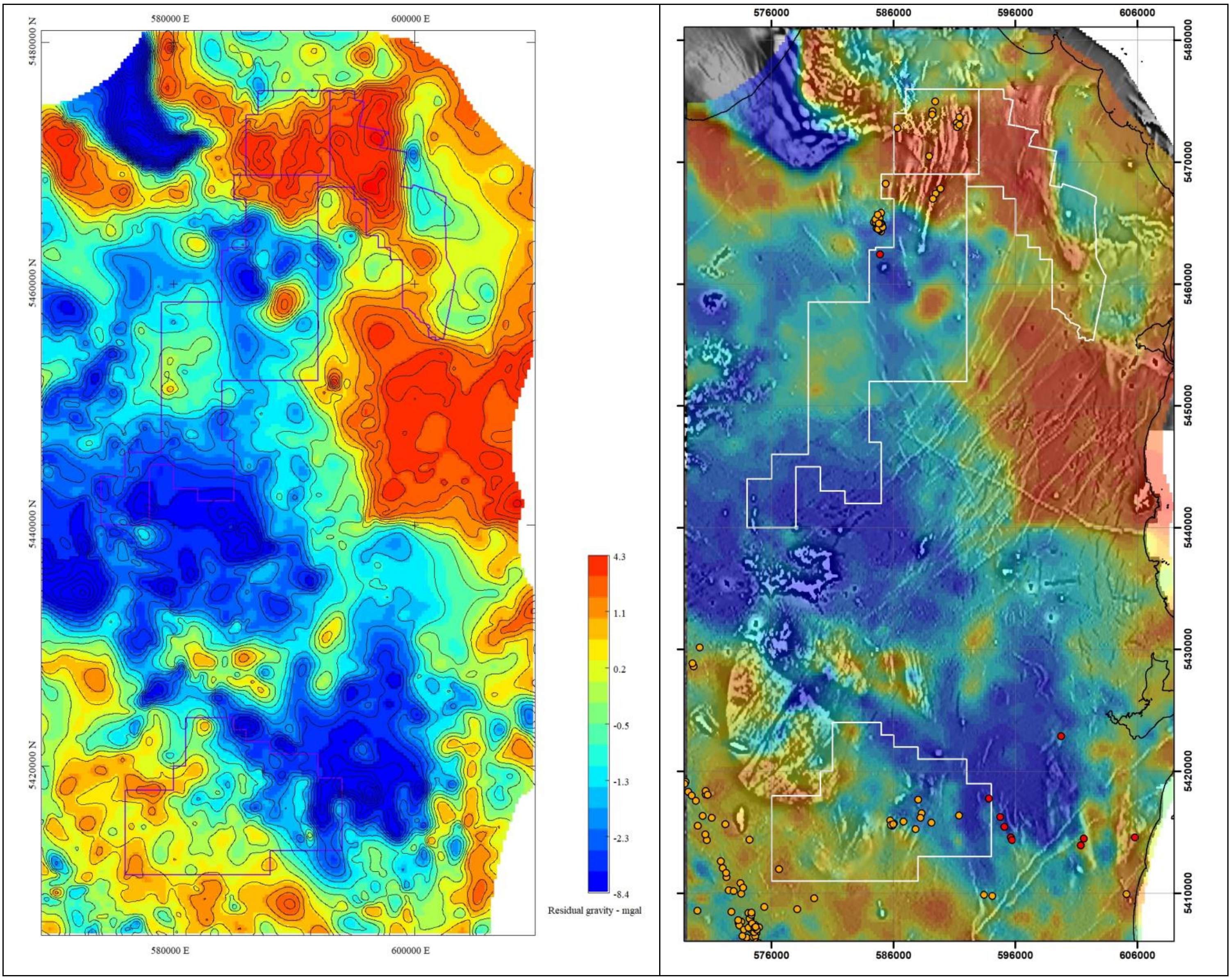

Figure 6. North east Tasmania project areas. Images of district scale residual gravity (Left) and residual gravity and greyscale 1Vd magnetics (right).

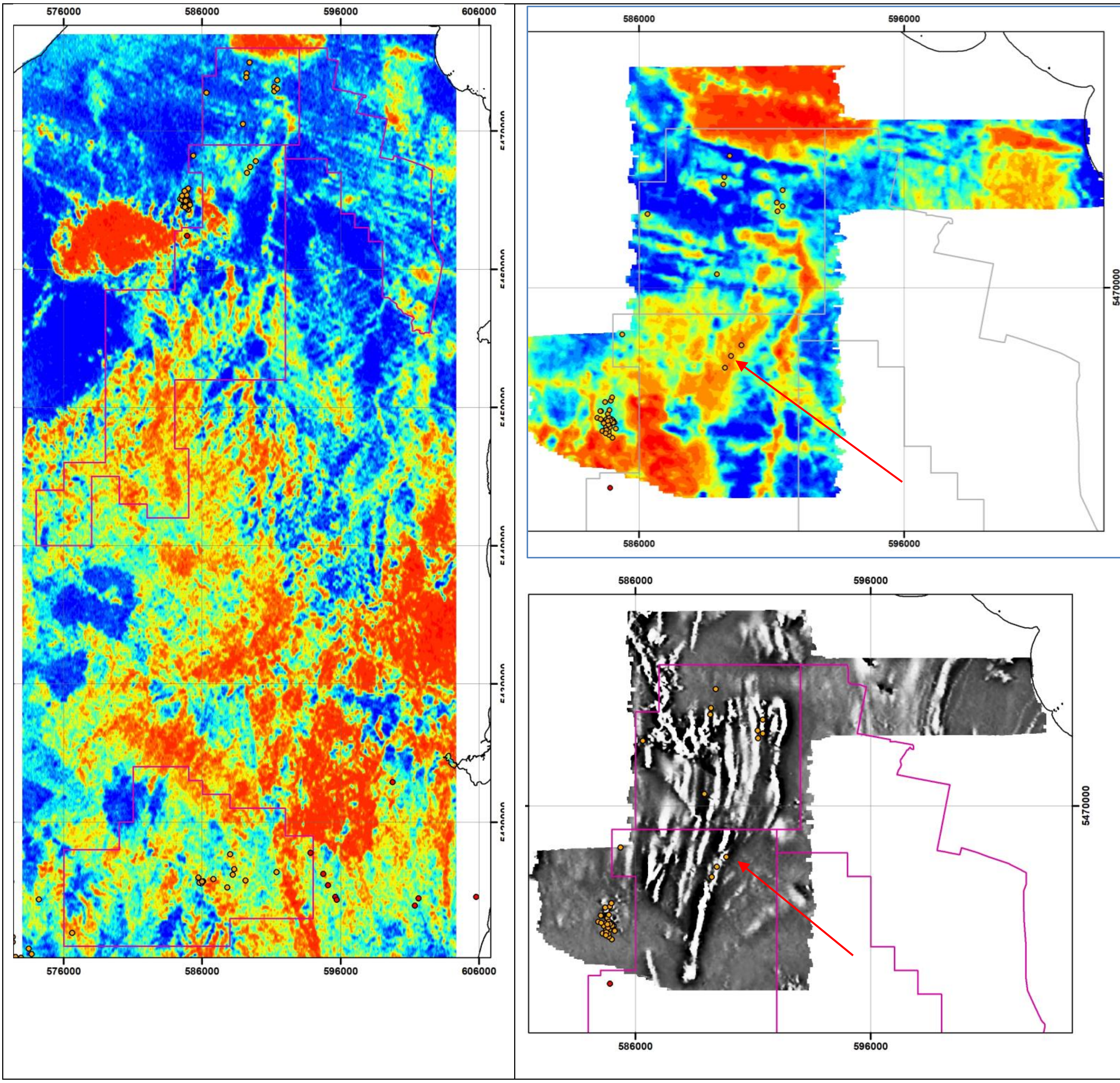

Figure 7. Potassium images derived from the regional (left) and Portman surveys (top right) and the first vertical derivative image from the Portman project area (bottom right). The red arrows point to coincident gold, potassium and magnetic anomalies.

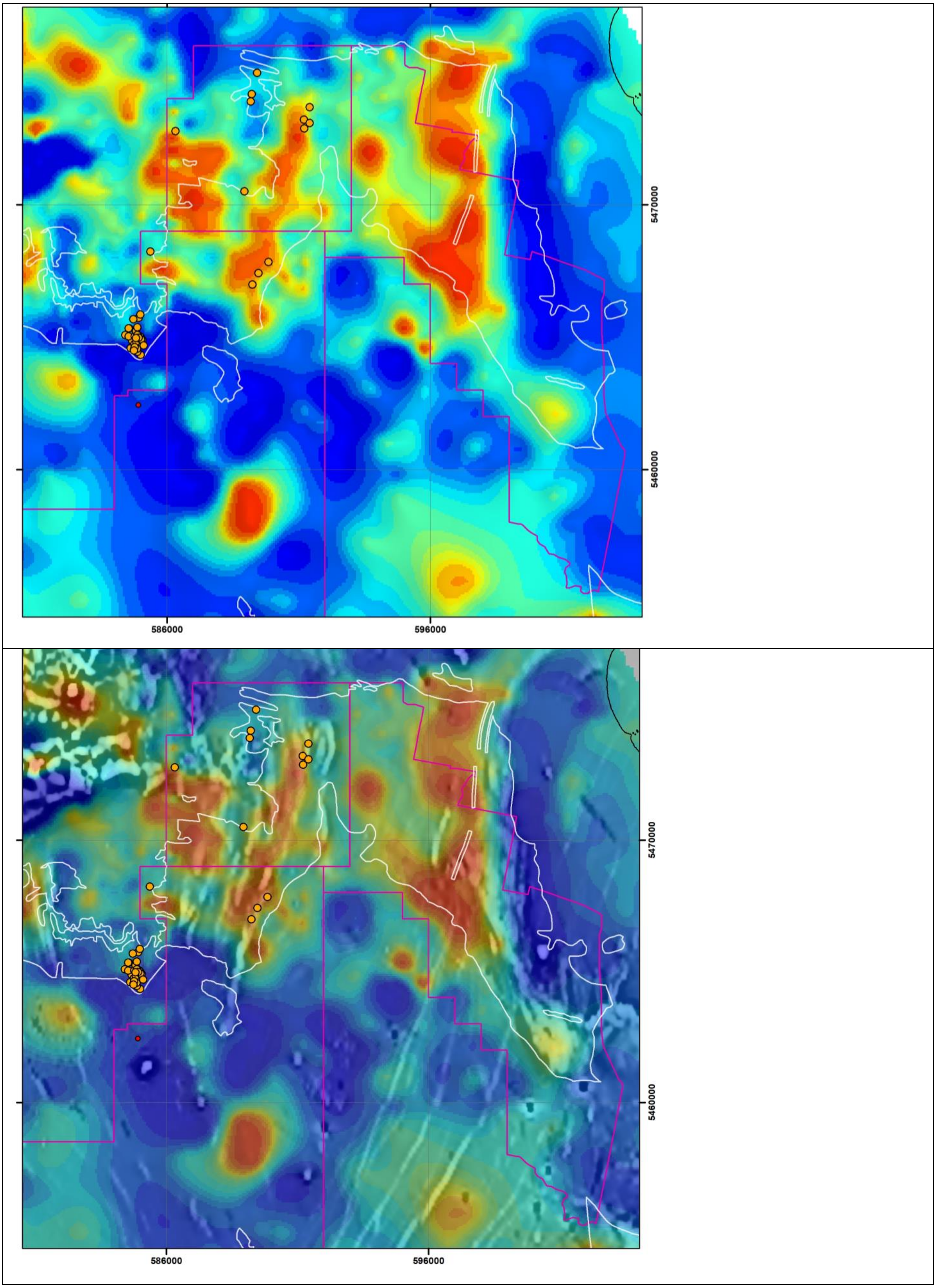

Figure 8. Portman project target signatures and gold occurrences. Coincident sharpened residual gravity(top) and the gravity merged with 1Vd magnetics (bottom). The Mathinna host rock is shown in white outline.

APPENDIX II

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20th[th] February 2020

RE: -Processing and Interpretation. – Magnetic Survey Data EL18/2018

1. Summary

Western Geophysics Pty Ltd (WGPX) has completed the processing, analysis, and interpretation of airborne magnetic survey data over exploration licence E18/2018.

The aim of the work is to investigate magnetic anomalies in a NW-SE trend within the Mathinna group sediments adjacent to the western margin of the Eddystone batholith and, to determine the depth and 3D structure of the magnetic sources.

Model calculations using 3D inversion and forward methods have shown the derived magnetic susceptibility values and depth of the source bodies are comparable and are 2 to 3 orders of magnitude higher than the weakly magnetic Mathinna group sediments.

The depth to the modelled bodies is relatively benign in terms of drilling targets and could be easily tested using RC drilling methods in most cases.

The work completed here forms a basis for target selection assuming the magnetic targets represent a part of the alteration and mineralisation process. Magnetic anomalies in the southern and Northern projects areas corelate with residual gravity anomalies (previous work) suggesting mass addition due to magnetite and pyrrhotite.

2. Introduction and Background

A regional magnetic and radiometric survey was flown by GPX Airborne Geophysics (200m line spacing) in 2005. The survey completely covers E18/2018

Previous work by WPX identified coincident magnetic and residual gravity anomalies trending NW-SE. The anomalies within the Mathinna group sediments are located at or near the contact of the Mathinna group with the Eddystone batholith. The magnetic and gravity anomalies are interpreted as being due to magnetite and/or pyrrhotite alteration in fault and fold structures within the Mathinna formation. (Figure 1)

Physical property work by Micheal Roach (Phd.1994) shows the granites have a relatively low density, averaging 2.61 T/m^3 and are non-magnetic. Granodiorites have a mean density of 2.71 T/m^3. The Mathinna Group rocks have a mean density of 2.71 T/m^3. and are weakly magnetic (0.00019 SI units). Roach also correlates ground magnetic anomalies with increased magnetic susceptibility values in alteration associated with mineralised quartz veins in trenches near the Portland and Prince Imperial mines.

3. Geophysics Surveys and Data Processing.

Selected flight line covering EL18-2018 have been extracted from the database to enable further processing and modelling.

Gridding and imaging of the data show there is distinctive trend of magnetic anomalies and structure trend within a broad magnetic zone that is approximately 15km long (Figure 2). Peak magnetic anomaly amplitudes vary from approximately 50-110 nanoTesla (nT).

4. Magnetic Modelling and Interpretation.

Magnetic modelling has been completed using 3Dinversion software MGInv3D. (Scicomap Pty Ltd) and forward modelling software Model Vision (Pitney Bowes).

Flight line profiles have been selected across the maximum TMI anomalies (Figure 3). The key lines are described as being in the Southern, Central and Northern anomaly areas.

Trial and error forward modelling also incorporated the first vertical derivative (1Vd) of TMI which is sensitive to calculated depth. A good fit between the observed and calculated data has been achieved using simple tabular bodies. Apart from L101350 very deep sources greater than 500m BGL are simulated using the regional field.

Modelling using the 3Dinversion code has produced a 50m (X,Y) and 25m(Z) block model of calculated magnetic susceptibility values to a total depth of 1.8km. Depth slices through the model are shown as images on Figure 4. The 3D model calculation was completed using a multitasking 16 core (32 thread) high-end desktop computer. The starting model comprised 8 million cells.

The forward and inverse modelling results presented as sections are shown together for each line on Figures 5 to 10. The location, depth to the top and the calculated magnetic susceptibility of the forward model bodies are posted below each of the sectional figures and, also on an image of TMI on Figure 11.

Calculated depth and magnetic susceptibility values are comparable for forward and inverse results. Magnetic susceptibility values from the 3D inversion however tend to be systematically lower by approximately 20% due to value spreading in the 50x 50m mesh.

5. Conclusions and Recommendations.

The aim of the work is to investigate magnetic anomalies in a NW-SE trend within the Mathinna group sediments adjacent to the western margin of the Eddystone batholith and, to determine the depth and 3D structure of the magnetic sources.

Model calculations using 3D inversion and forward methods has shown the derived magnetic susceptibility values and depth of the source bodies are comparable and are 2 to 3 orders of magnitude higher than the weakly magnetic Mathinna group sediments.
The depth to the modelled bodies is relatively benign in terms of drilling targets and could be easily tested using RC drilling methods in most cases.

The work completed here forms a basis for target selection assuming the magnetic targets represent a part of the alteration and mineralisation process. Magnetic anomalies in the southern and Northern projects areas correlate with residual gravity anomalies (previous work) suggesting mass addition due to magnetite and pyrrhotite.

Further geophysical methods that are most likely to assist in final target selection are ground magnetics, in-fill gravity and induced polarisation in selected areas.

FIGURES.

Figure 1. Northeast Tasmania Portland project tenements (red outlines) and mineral deposit locations.

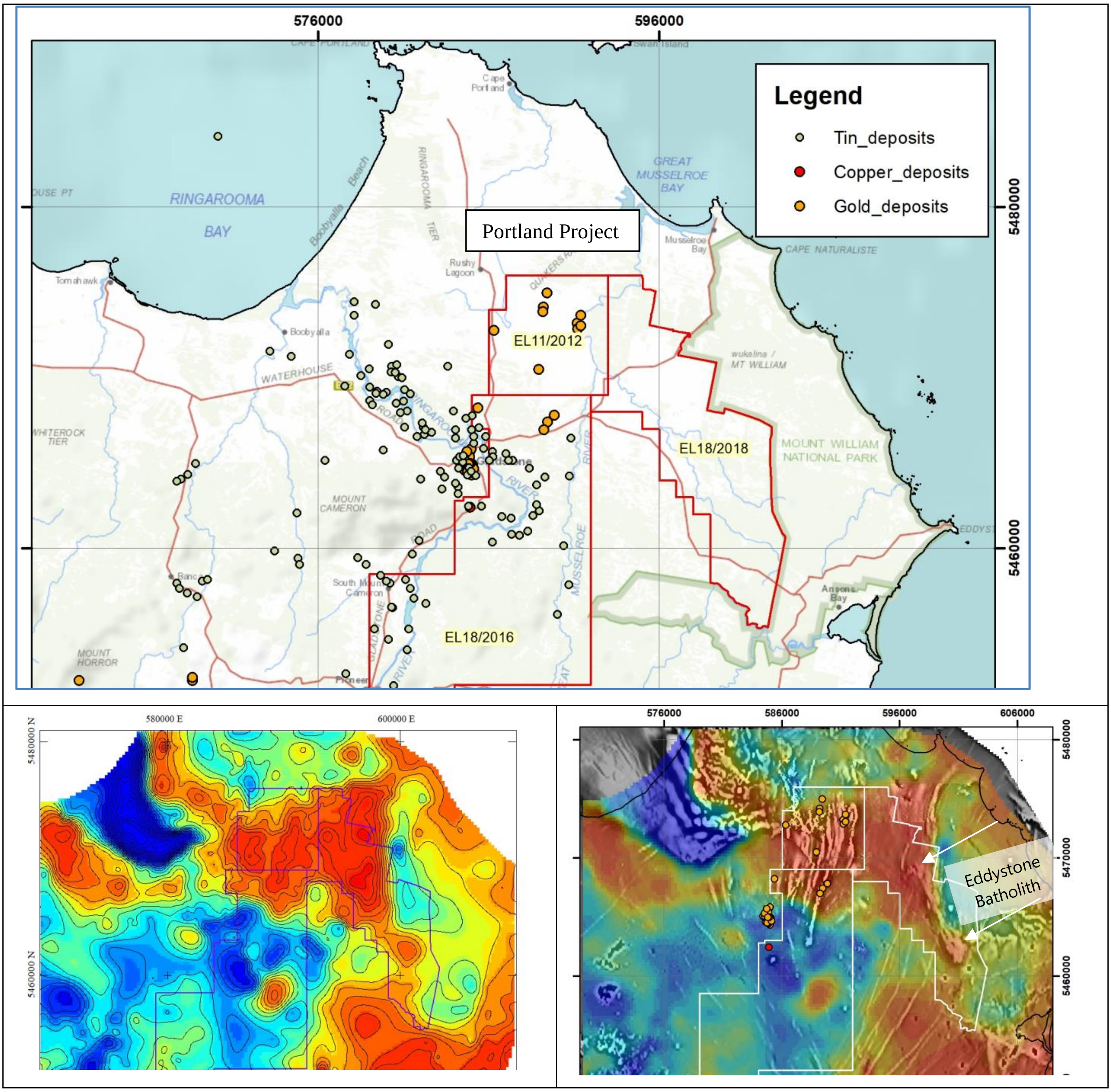

Figure 1. Exploration licence E18/2018 Northeast Tasmania with gold and tin occurrences(top). Residual gravity highs correlate with Mathinna Group sediments (bottom left) and gold occurrences correlate with magnetic anomalies. Distinctive magnetic anomalies (arrows) within the Mathinna group are located at or near to the Eddystone batholith contact as indicated on the map (lower right).

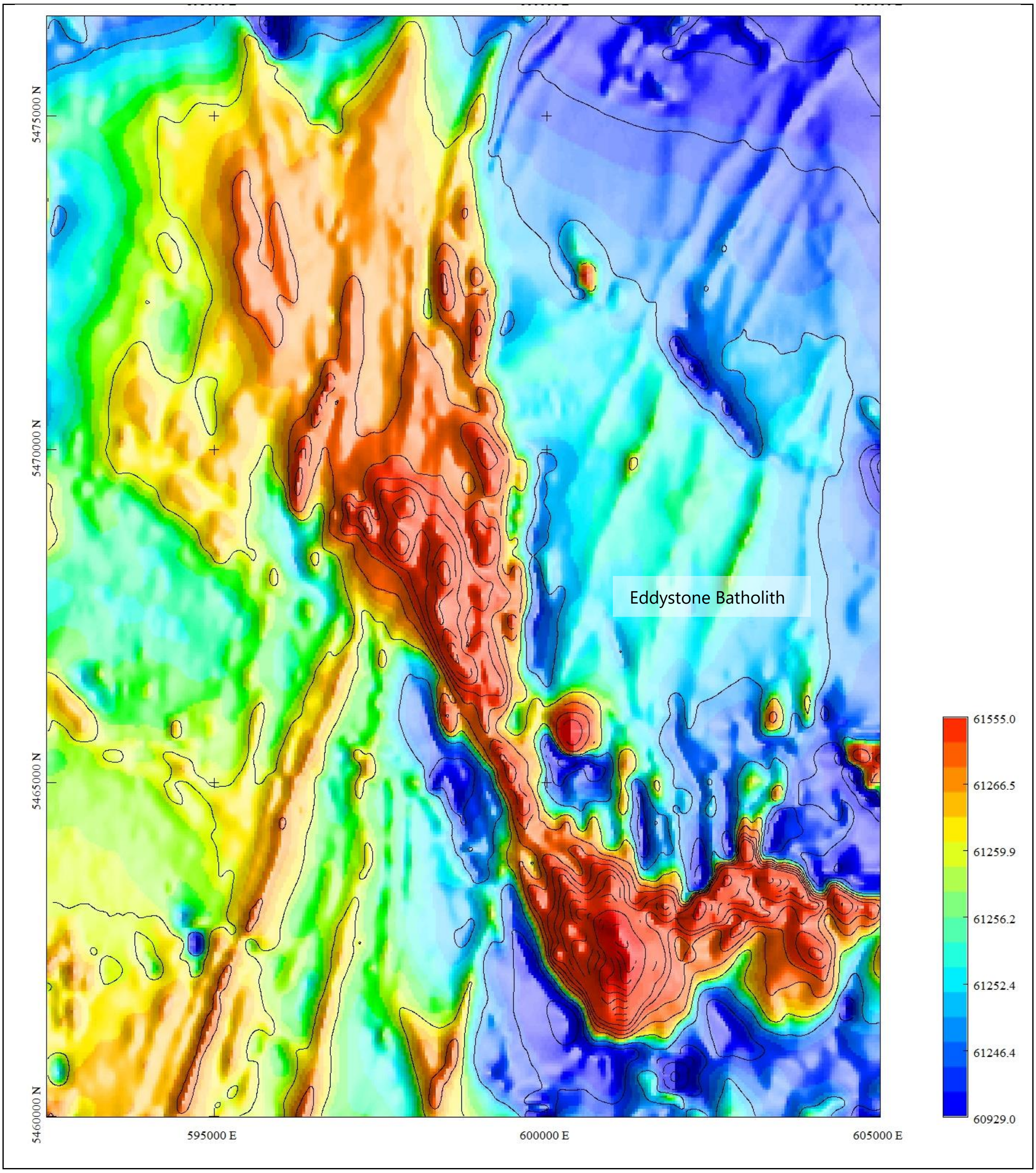

Figure 2. Imaged and contoured total magnetic intensity over E18/2018

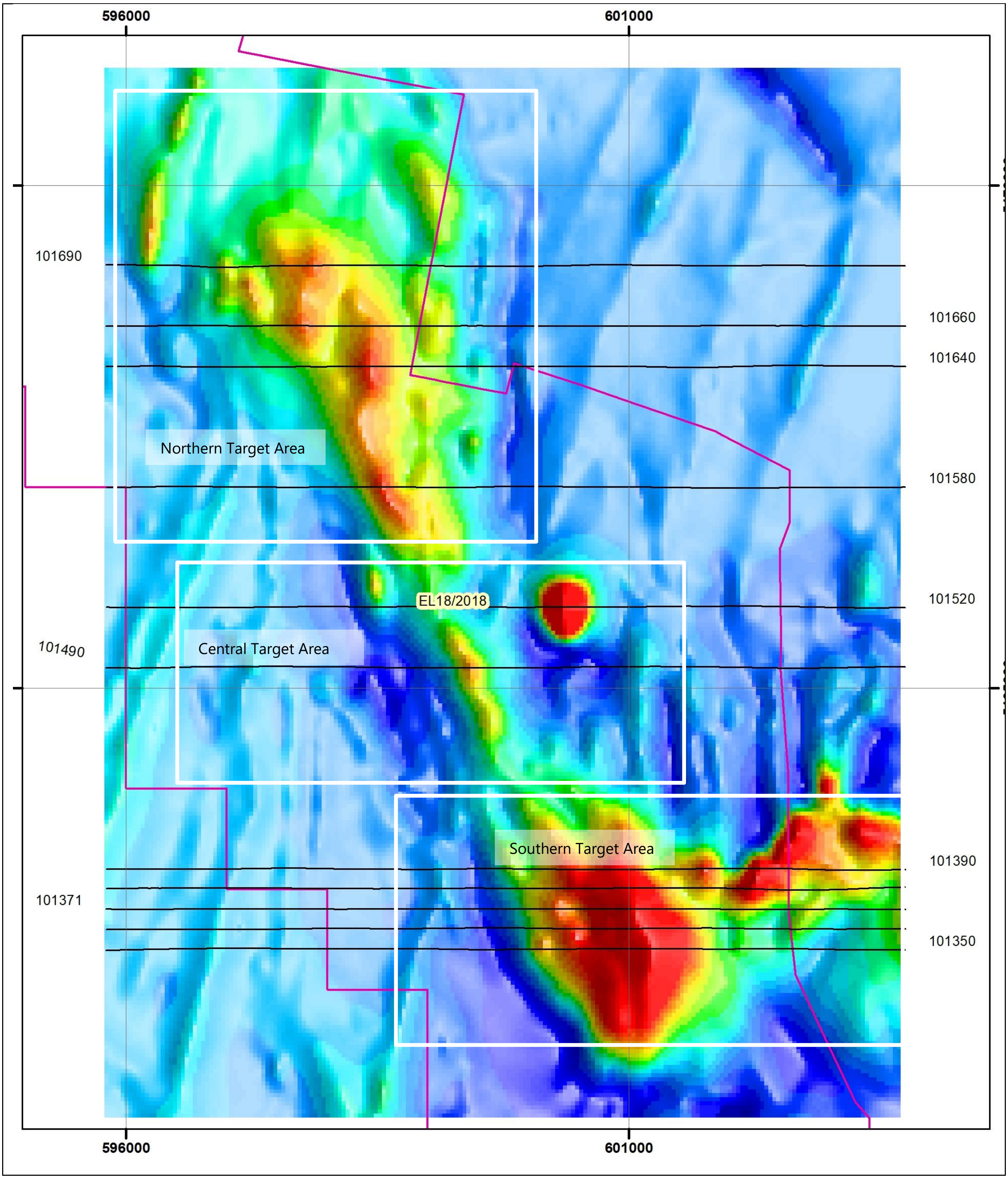

Figure 3. The total magnetic intensity (TMI) image over E18/2018. 3D model inversions were completed over the area of the TMI image. Forward model calculations were completed on selected flight lines, covering the Northern, Central and Southern magnetic target areas

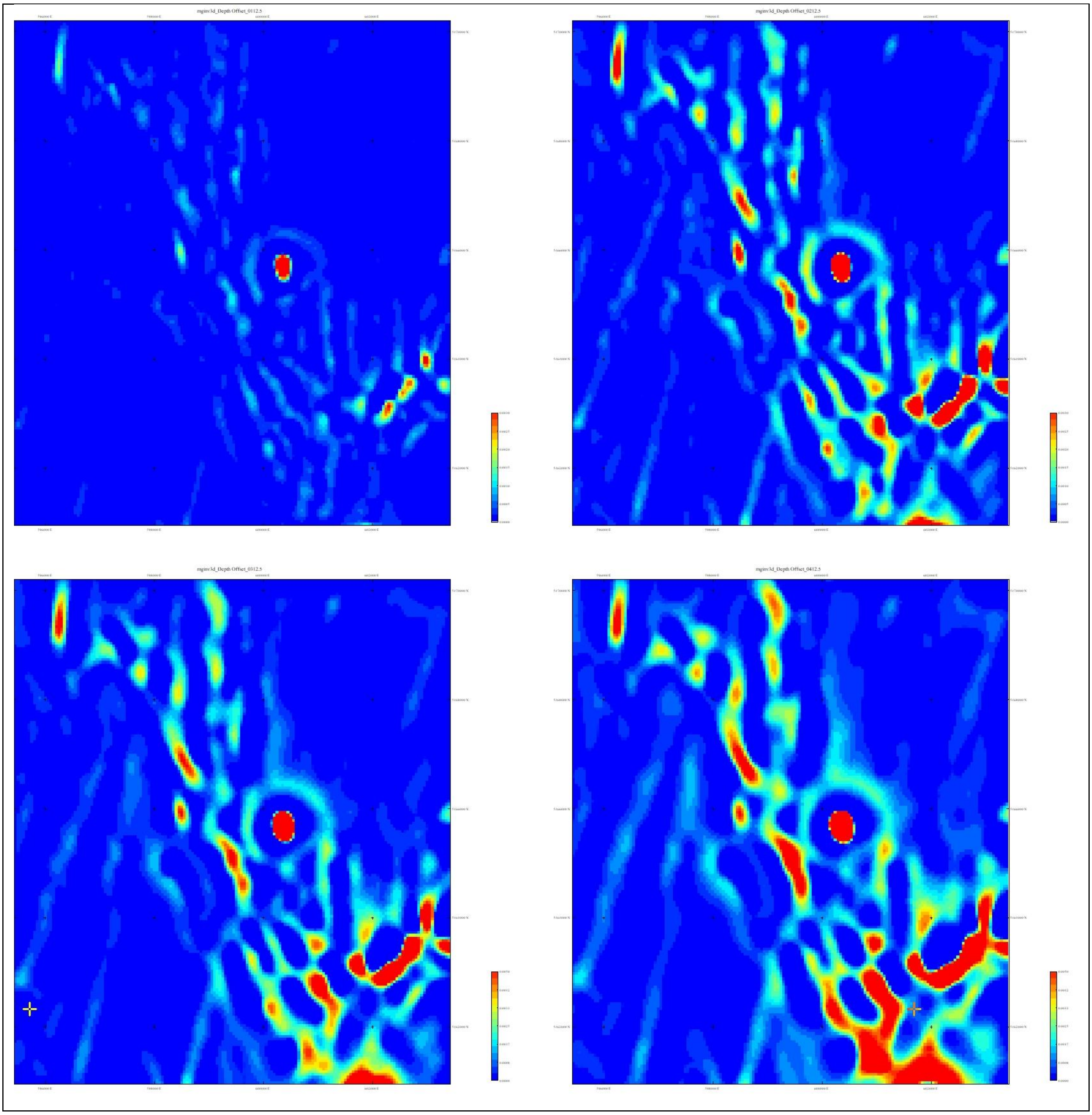

Figure 4. Depth slices through the 3D inversion model. At the top and left to right, depth slices are at 100m and 200m and at the bottom, 300m and 400m below the surface.

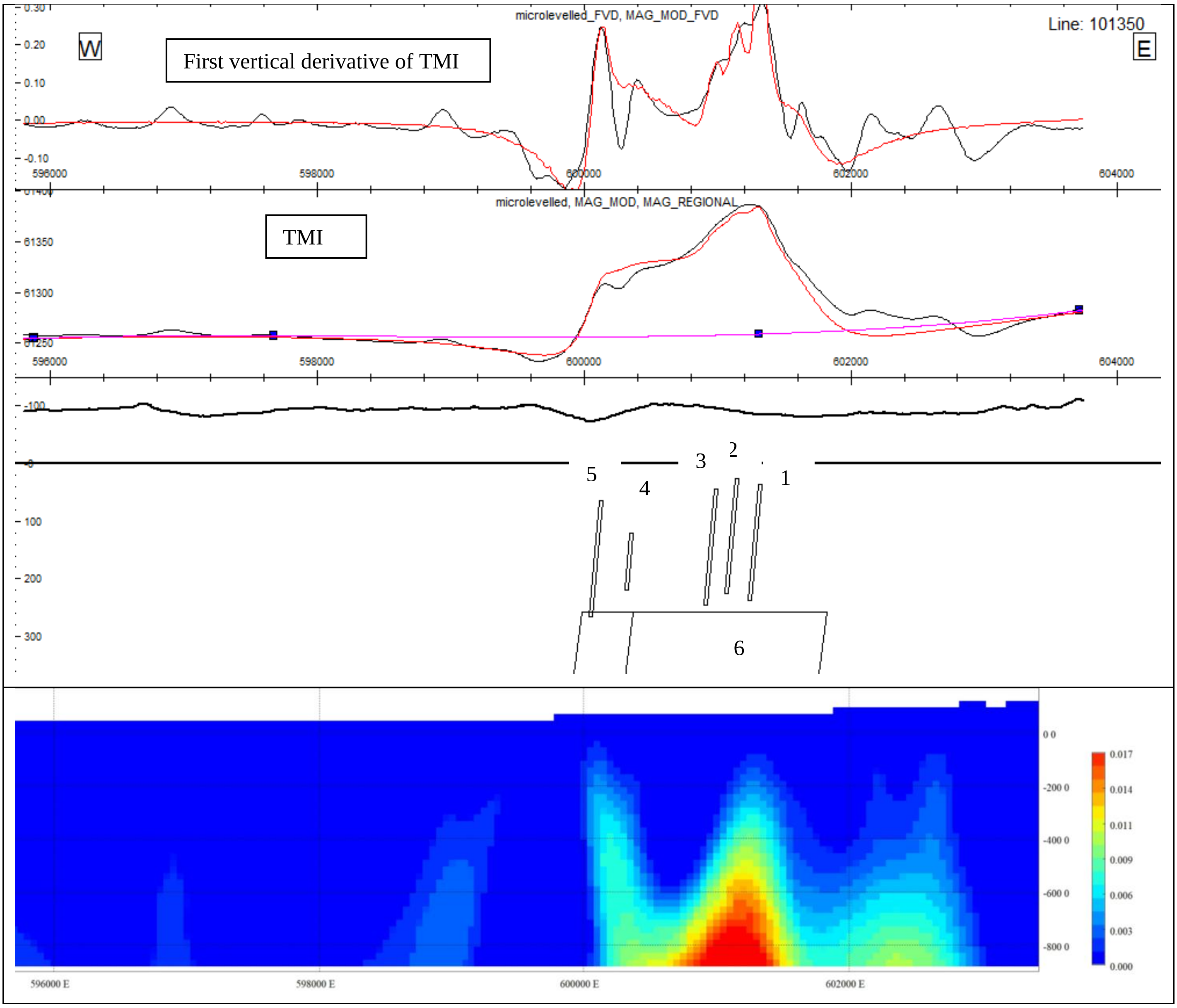

Figure 5. Southern target area magnetic modelling results. Forward modelling results line 101350 (top) and 3Dinversion model section (bottom) Forward model properties are tabulated for each body. The forward and inverse model depth and magnetic susceptibility solutions are comparable. Vertical scales are RL in meters above or below mean sea level.

Line	BodyID	X	Y	Msus	DTM	Z	DepthBGL
101350	1	601321.1	5462400	0.03	73.85	-37.1	110.95
101350	2	601147.1	5462400	0.02	70.93	-25.1	96.03
101350	3	600990.5	5462400	0.02	69.06	-45.2	114.26
101350	4	600355.4	5462400	0.01	71.9	-119.7	191.6
101350	5	600129.2	5462400	0.03	75.36	-65.3	140.66
101350	6	600903.5	5462400	0.02	70.32	-258	328.32

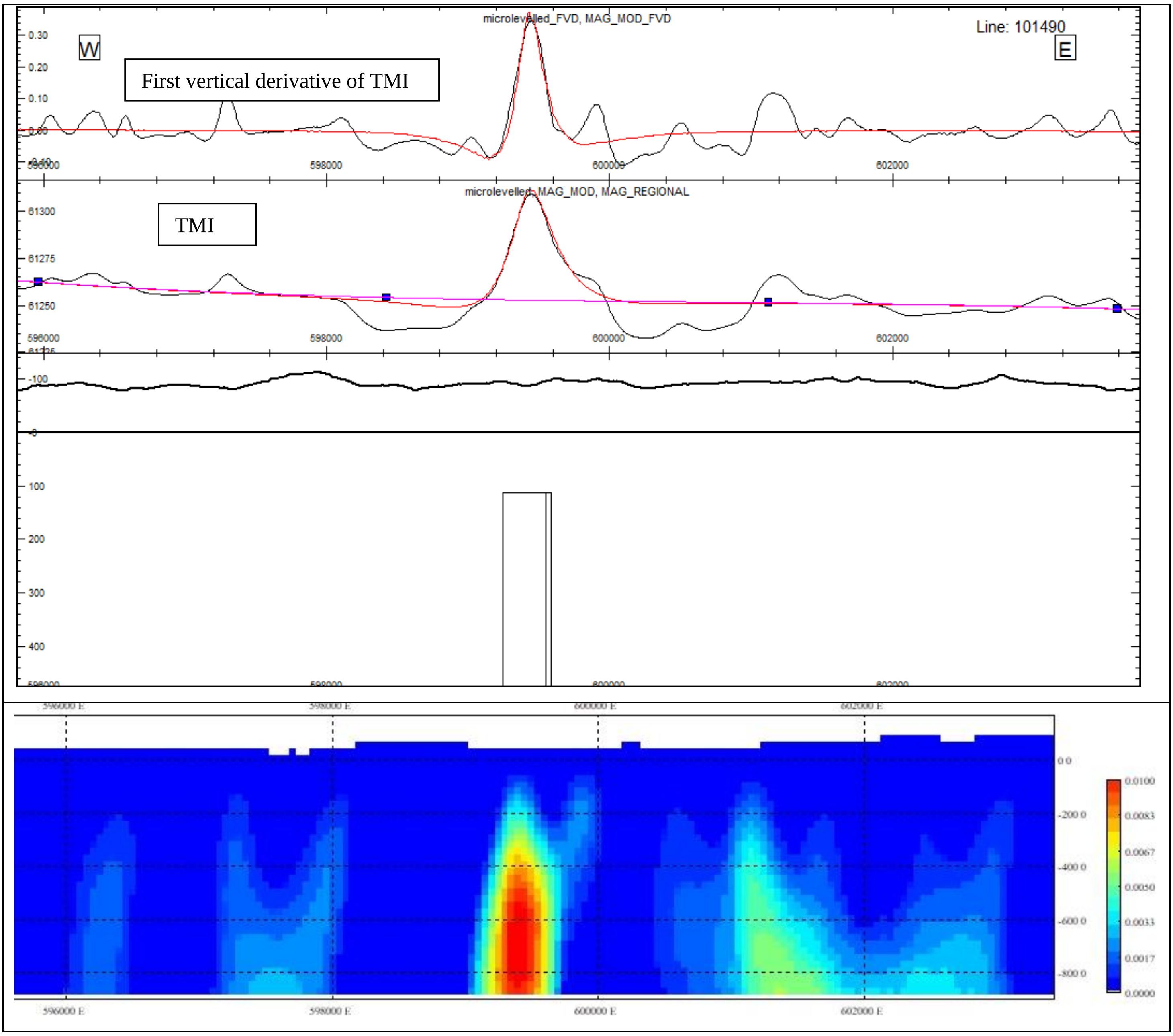

Figure 6. Central target area magnetic modelling results. Forward modelling results line 101490 (top) and 3Dinversion model section (bottom) Forward model properties are tabulated for each body. The forward and inverse model depth and magnetic susceptibility solutions are comparable. Vertical scales are RL in meters above or below mean sea level.

Line	BodyID	X	Y	Msus	DTM	Z	DepthBGL
101490	1	599417.3	5465205	0.05	50.27	-112.1	162.37

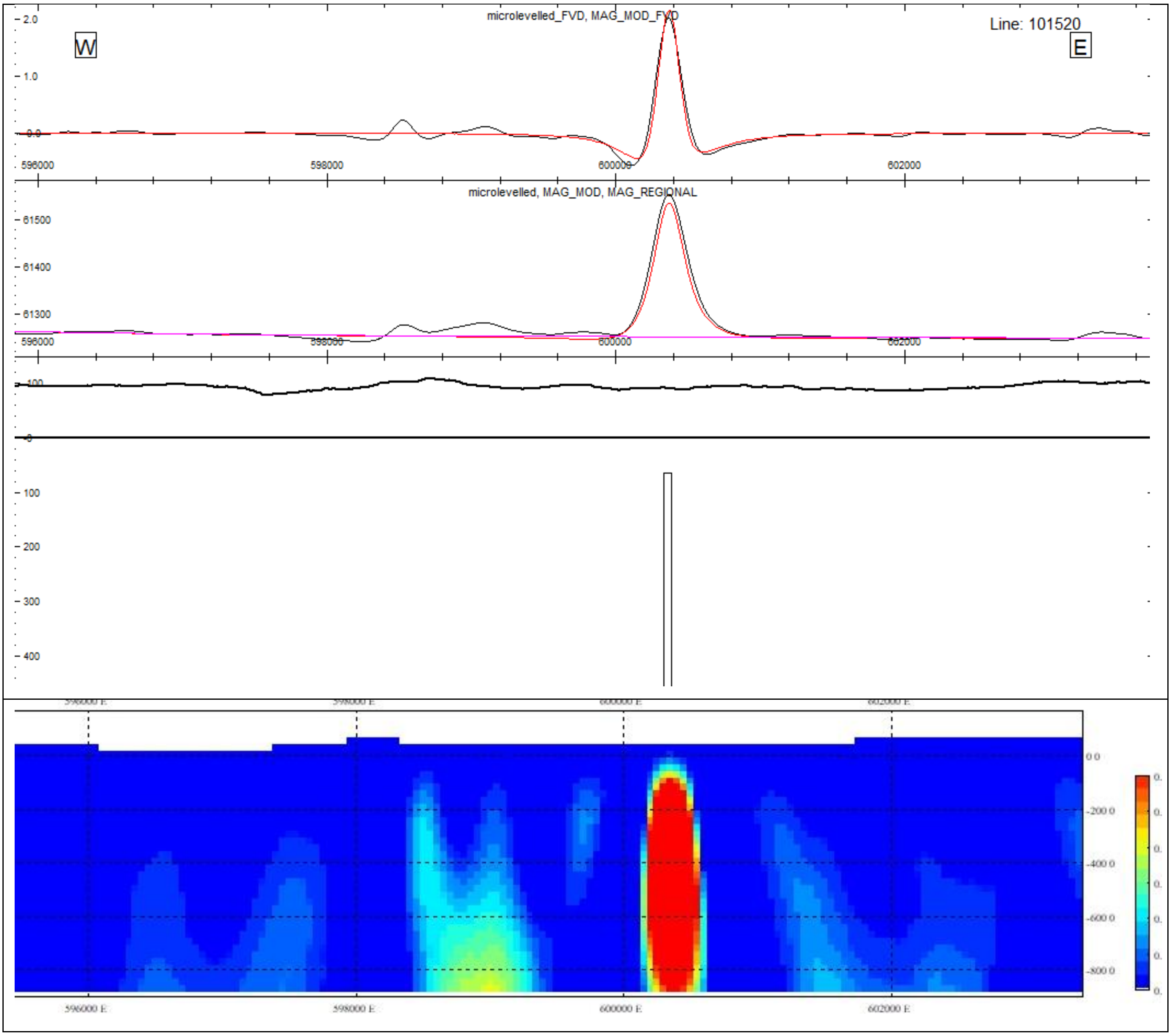

Figure 7. Central target area magnetic modelling results. Forward modelling results line 101520 (top) and 3Dinversion model section (bottom) Forward model properties are tabulated for each body. The forward and inverse model depth and magnetic susceptibility solutions are comparable. Vertical scales are RL in meters above or below mean sea level.

Line	BodyID	X	Y	Msus	DTM	Z	DepthBGL
101520	1	600359.3	5465800	0.17	49.41	-55.75	105.16

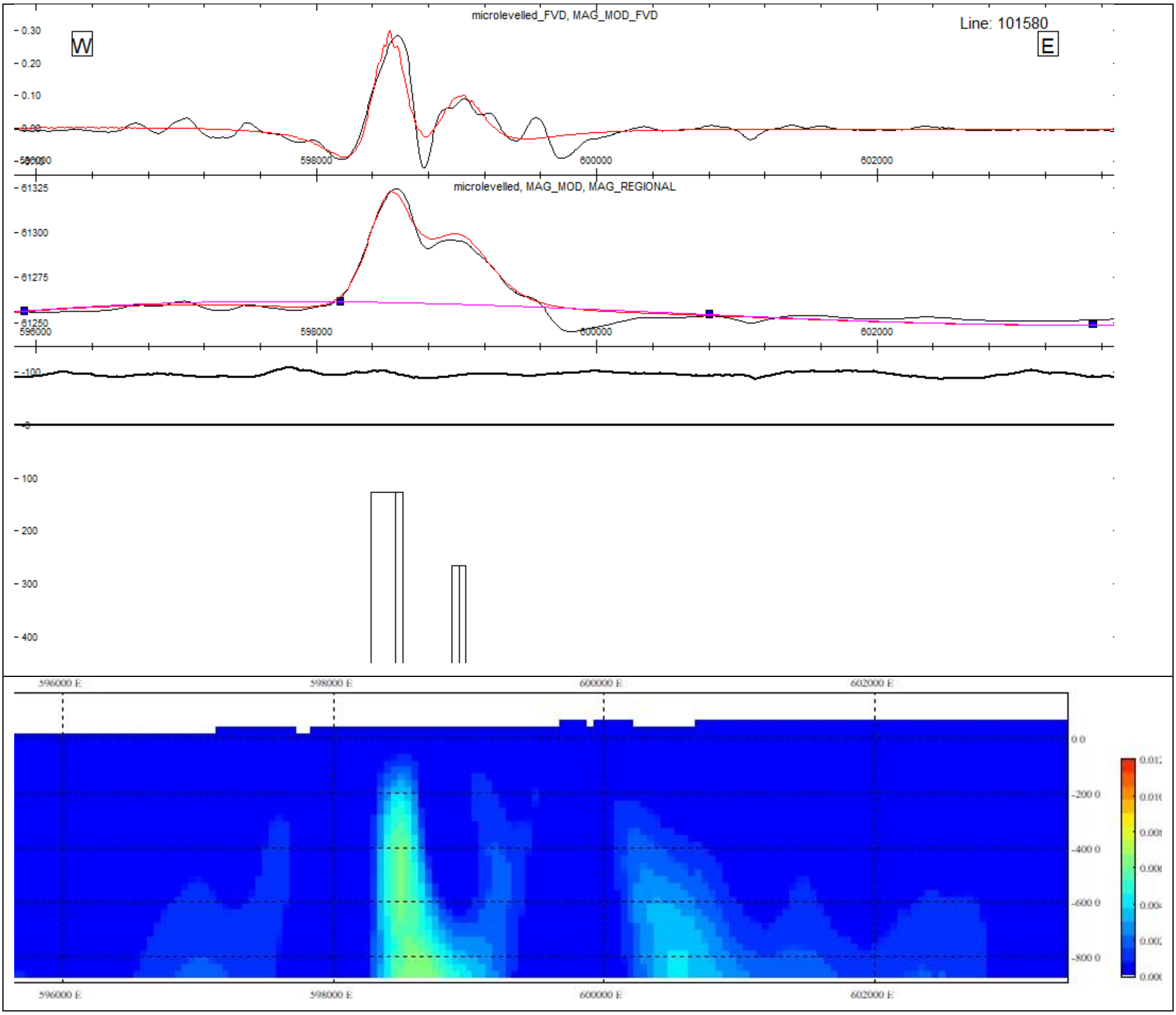

Figure 8. Northern target area magnetic modelling results. Forward modelling results line 101580 (top) and 3Dinversion model section (bottom) Forward model properties are tabulated for each body. The forward and inverse model depth and magnetic susceptibility solutions are comparable. Vertical scales are RL in meters above or below mean sea level.

Line	BodyID	X	Y	Msus	DTM	Z	DepthBGL
101580	1	598504.4	5467000	0.04	36.61	-126.29	162.9
101580	2	599016	5467000	0.07	45.44	-266.52	311.96

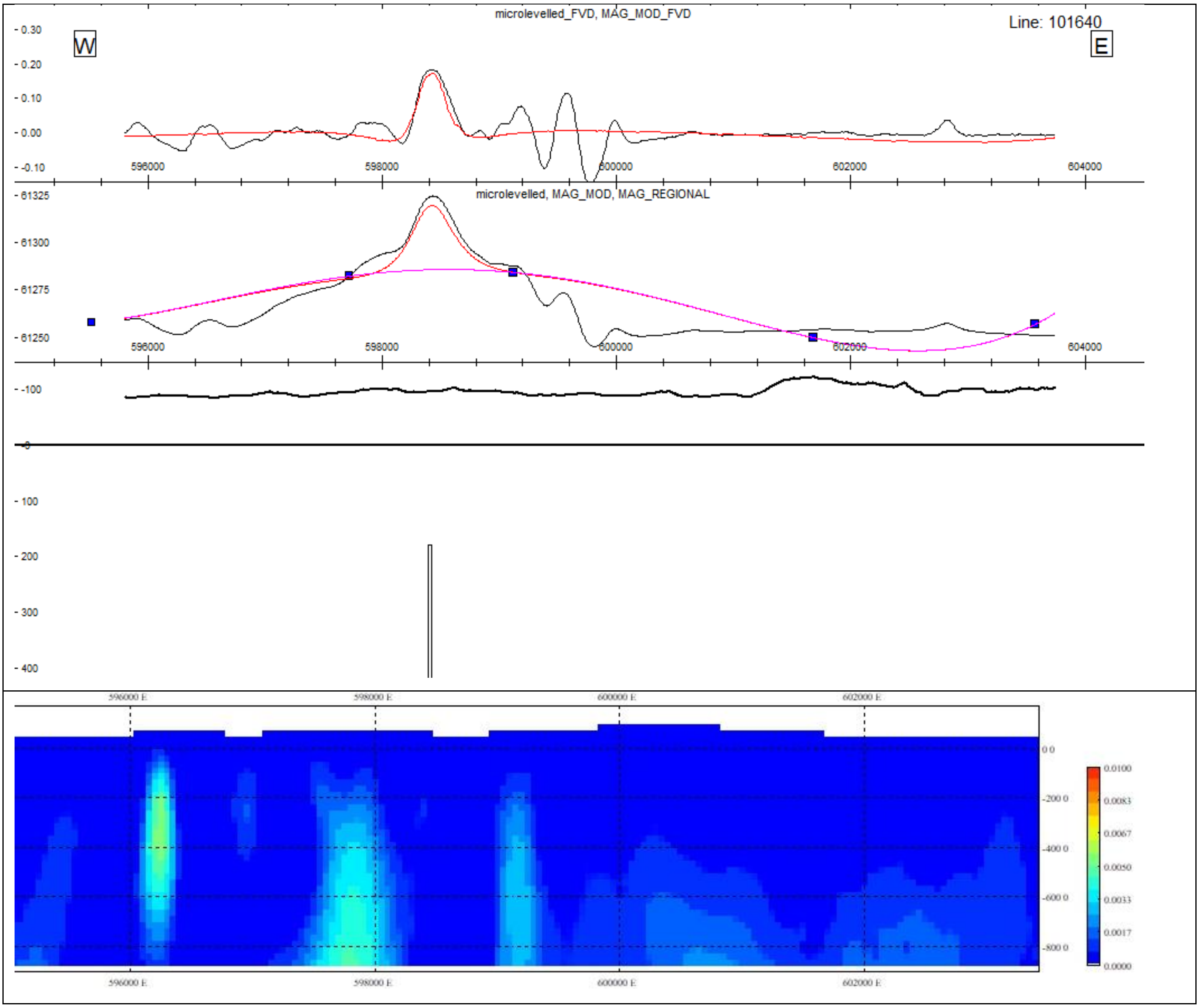

Figure 9. Northern target area magnetic modelling results. Forward modelling results line 101640 (top) and 3Dinversion model section (bottom) Forward model properties are tabulated for each body. The forward and inverse model depth and magnetic susceptibility solutions are comparable. Vertical scales are RL in meters above or below mean sea level.

Line	BodyID	X	Y	Msus	DTM	Z	DepthBGL
101640	1	598408.2	5468167	0.06	44.77	-180	224.77

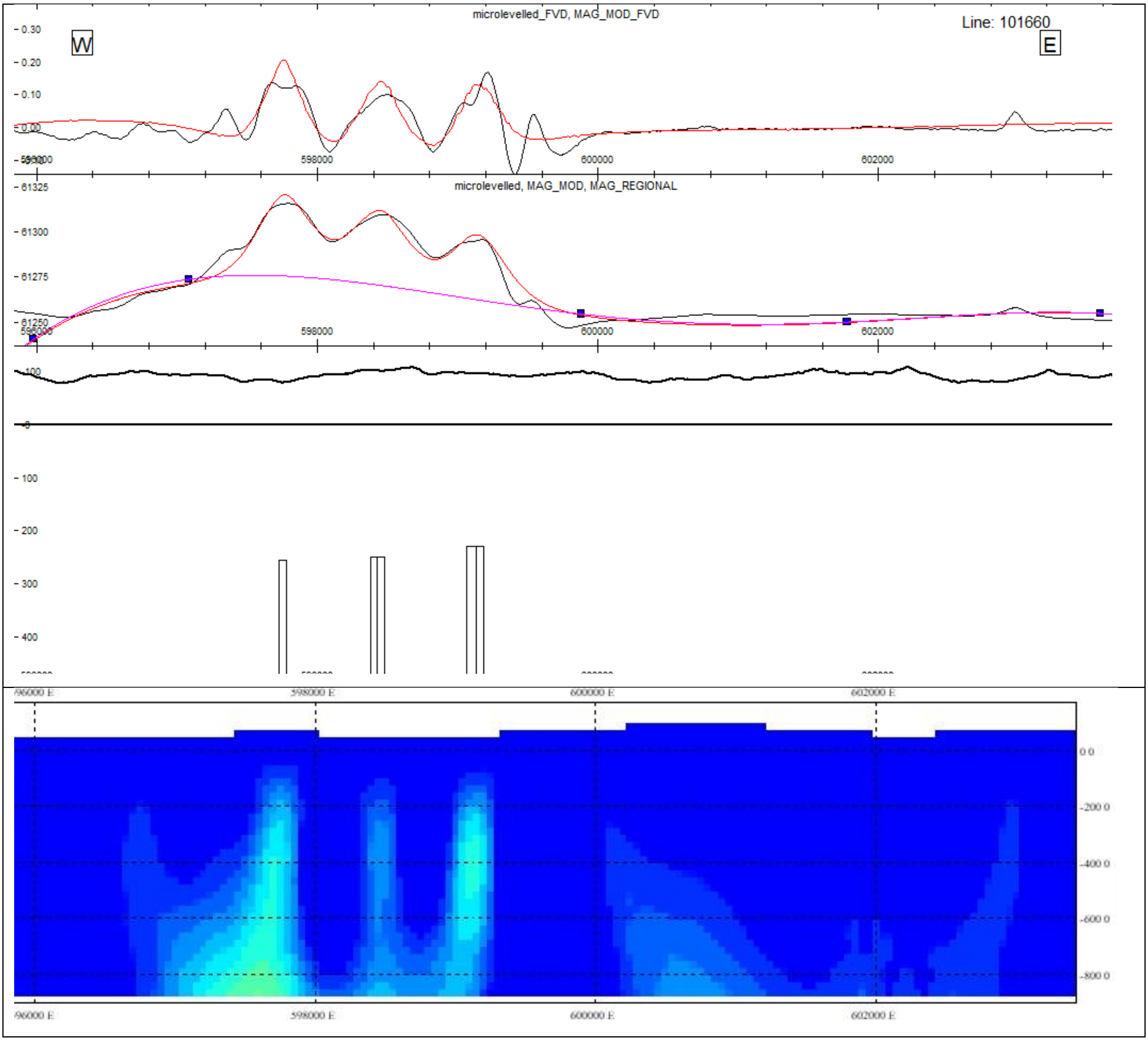

Figure 10. Northern target area magnetic modelling results. Forward modelling results line 101660 (top) and 3Dinversion model section (bottom) Forward model properties are tabulated for each body. The forward and inverse model depth and magnetic susceptibility solutions are comparable. Vertical scales are RL in meters above or below mean sea level.

Line	BodyID	X	Y	Msus	DTM	Z	DepthBGL
101660	1	597752.3	5468574	0.08	61.66	-256.5	318.16
101660	2	598429.6	5468609	0.08	50.33	-250.4	300.73
101660	3	599123.5	5468609	0.06	50	-230.3	280.3

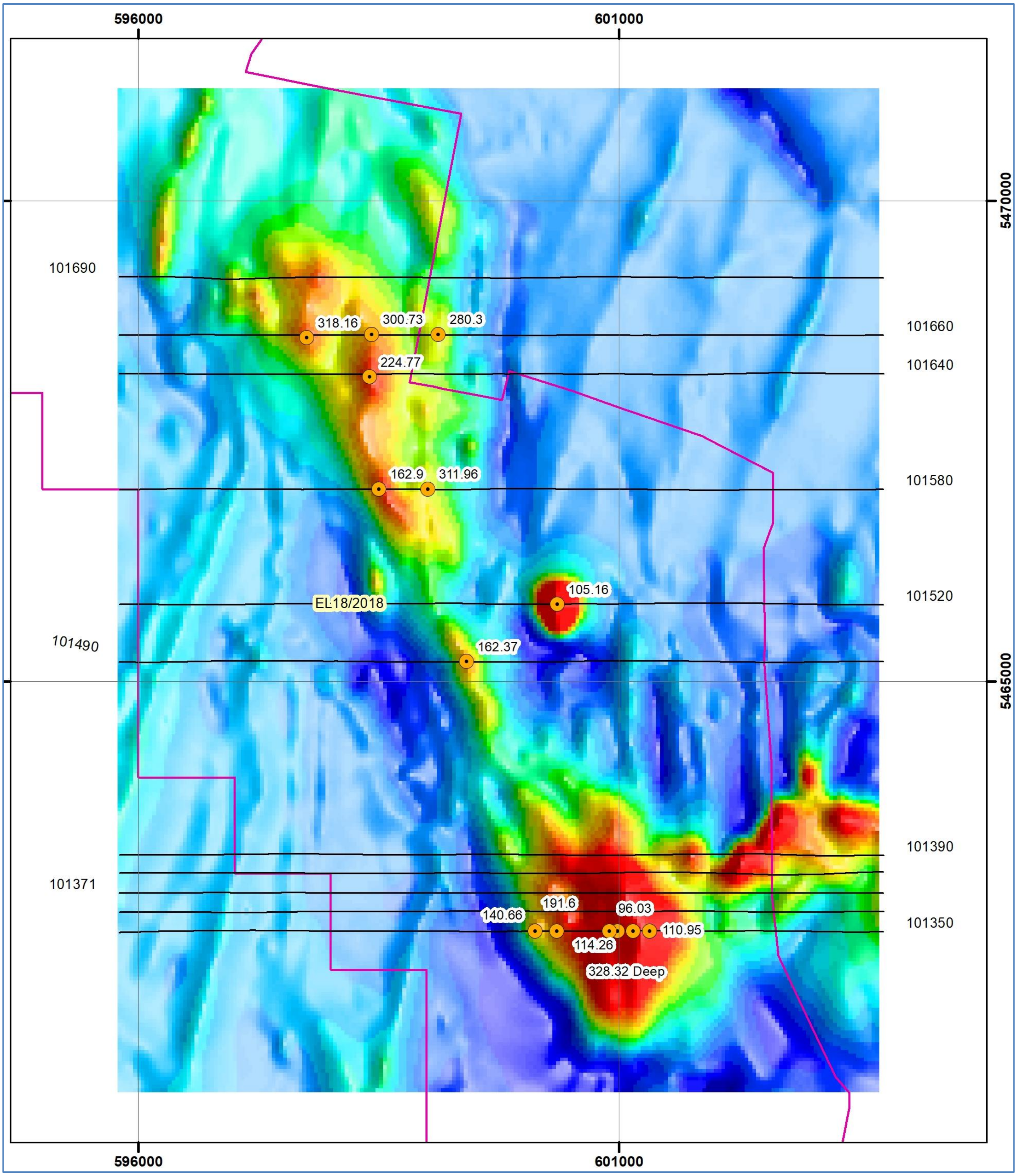

Figure 10. Forward modelling, calculated top of magnetic bodies on selected lines. The background image is TMI.