

EXCITING IP RESULTS NAGAMBIE MINE WEST AND WANDEAN CRUSTAL FAULT

Summary

The latest Induced Polarisation (IP) survey has been very successful. Key outcomes include:

- ❖ The Wandean Crustal Fault clearly appears to be the pathway for hydrothermal fluids that have given rise to the Fosterville-style, sulphide-gold mineralisation in the Nagambie Mine area. This provides strong validation of Nagambie Resources' intersecting-faults' gold model for its extensive tenement holdings in the Waranga Domain;
- ❖ Location of a drill-ready, strong and continuous chargeability zone (open to both the east and west) at Nagambie Mine West where the Nagambie Mine Thrust intersects the Wandean Crustal Fault; and
- ❖ Location of a strong chargeability anomaly where the Cahill Thrust intersects the Wandean Crustal Fault. Indication that there could be another strong chargeability zone where the Racecourse Thrust intersects the Wandean Crustal Fault. Both the Cahill and Racecourse sulphide-gold targets will require additional IP survey lines to the west before they could become drill-ready.

January 2020 IP Survey

The IP survey was completed over the area west and north west of the legacy Nagambie Mine pits during January (refer Figure 1) and modelled results have been received from the IP contractor. A JORC 2012 Edition, Table 1 Checklist for the survey is attached at the end of this announcement.

The selected area was considered to have strong potential for pyrite-arsenopyrite-stibnite-associated gold mineralisation, similar to that at the Fosterville Mine, associated with the western extrapolation of the Nagambie Mine Thrust Fault and other parallel east-west-trending thrust faults.

The area is under thick cover of unconsolidated Murray Basin sediments, often exceeding 70m, the limit for soil sampling. Geophysical methods are considered the optimum means to locate targets for drill testing. The Mine IP Survey in 2018 located high chargeability areas under the East and West Pits, leading to the intersection of moderate gold grades, previously reported, in diamond drilling.

Under the current Waranga Domain Mineralisation Model developed by Nagambie Resources as a basis for its exploration strategy, the intersection of the Nagambie Mine Thrust Fault and the Wandean Crustal Fault near McDonalds Road was considered to have strong potential for gold mineralisation (refer Figures 1 and 2). Gold-iron-arsenic-antimony-enriched hydrothermal fluids passed from the deep basement volcanics upwards and along the Wandean Crustal Fault at the time of deposition, around 375 million years ago. On encountering the Nagambie Mine Thrust, the fluids dissipated into the localised fractures associated with the thrust to form disseminated gold deposits when the temperature and pressure conditions were conducive. This has been identified at Wandean, although the locus of mineralisation at Wandean is yet to be identified at depth.

NAGAMBIE RESOURCES

Exploration for Fosterville-style, structural-controlled, high grade sulphide-gold underground deposits within 2,000 sq km of Waranga Domain tenements is being methodically carried out using geophysical targeting techniques, diamond drilling and analysis for hydrothermal alteration of the sediments.

Underwater storage of sulphidic excavation material (WASS / PASS) in the two legacy gold pits at the Nagambie Mine is an excellent environmental fit with major infrastructure projects for Melbourne such as Metro Rail, West Gate Tunnel and North-East Link.

Recycling of the tailings and overburden dumps can produce aggregates for concrete and gravel products respectively.

Quarrying and screening of sand deposits at the mine to produce various sand and quartz aggregate products is planned.

The first landfill site is planned to take advantage of the 17 Ha of engineered black plastic under the mine tailings pad.

SHARES ON ISSUE

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For the three principal sulphides associated with gold in the Waranga Domain, pyrite gives the best IP chargeability response, arsenopyrite gives a weaker response than pyrite, and stibnite gives no IP chargeability response. Statistical analysis of drill hole assay data for the Nagambie Mine and Wandean shows that gold grade correlates well with both % pyrite and % arsenopyrite but that the correlation with % stibnite to date is random.

IP Survey Lines

As soon as local cropping allowed in mid January 2020, the IP contractor, Zonge, commenced 21.1 line km of colinear, dipole-dipole IP over seven north-south survey lines (refer Figures 1 and 2 and JORC Table 1 Checklist). Zonge completed the ground survey work on 29 January 2020 and subsequently carried out proprietary computer inversion modelling of the survey data.

IP Chargeability Anomalies

Figures 3 to 9 show the Zonge chargeability inversion models in section view for the seven north-south survey lines from 338220E to 339480E. Figure 2 is a plan view developed by Geoff Turner of Exploration Management Services showing a horizontal slice at -175m RL through all seven sections with interpolation across sections using a block model and the inverse-distance-weighted method.

The shallow, high chargeability anomalies in Figure 9 (Line 339480E) and Figure 7 (Line 339190E) (with maximum chargeability readings of 12.0 msec and 9.0 msec respectively) clearly show the western extension of the Cahill stratiform syngenetic pyrite horizon picked up in previous Zonge survey work to the east. As such, they don't represent hydrothermal mineralisation and can be considered "false positives". The Cahill Pyrite Horizon is shown in plan view in Figure 2 and is positive in that: (1) the horizon has been picked up in multiple IP surveys, providing confidence in the reproducibility of the Zonge survey techniques; and (2) the continuity of the horizon along predicted strike indicates that there are no significant disrupting cross faults in this area.

Most significantly, there is a strong and continuous chargeability zone running from Line 339050E (maximum 6.6 msec) through to Line 339480E (maximum 6.9 msec), a distance of 430m. This Nagambie Mine West chargeability anomaly is strongest close to the intersection of the Nagambie Mine Thrust with the interpreted position of the Wandean Crustal Fault and further validates the Company's geological model for Fosterville-style sulphide-gold mineralisation in the Waranga Domain. As the probable pathway for the Nagambie Mine mineralising hydrothermal fluids, it represents a very compelling drill target, superior to that established to date at Wandean.

At the intersection of the Cahill Thrust Fault and the Wandean Crustal Fault, a chargeability high on Line 338220E has a maximum value of 7.2 msec and looks very prospective, indicating the need for additional IP survey lines to the west.

The January 2020 IP survey didn't cover the intersection of the Wandean Crustal Fault and the Racecourse Thrust Fault. However, chargeability anomalies to the east of the interpreted intersection on Line 338220E and Line 338800E indicate the need for additional IP survey lines to the west to extend over the intersection with the crustal fault.

Wandean Crustal Fault

The 2018 Mine IP Survey located high chargeability areas under the East and West Pits at the Nagambie Mine but no chargeability anomaly at the intersection of the Nagambie Mine Thrust and the Nagambie Crustal Fault to the east (refer Figure 2).

The January 2020 IP survey has now located a strong and continuous chargeability zone (open to both the east and west) at Nagambie Mine West where the Nagambie Mine Thrust intersects the Wandean Crustal Fault, around 1.5 km west of the Mine. The survey has also located a strong chargeability anomaly where the Cahill Thrust intersects the Wandean Crustal Fault. Further, the survey indicates that there could be another strong chargeability zone where the Racecourse Thrust intersects the Wandean Crustal Fault.

The oxide-gold mineralisation at the Wandean Prospect overlies the Wandean Crustal Fault, albeit that the locus of sulphide-gold mineralisation is yet to be identified at depth.

The Wandean Crustal Fault therefore clearly appears to be the pathway for hydrothermal fluids that have given rise to the Fosterville-style, pyrite-arsenopyrite-stibnite-associated gold mineralisation in the Nagambie area. This provides strong validation of Nagambie Resources' intersecting-faults gold model for its extensive tenement holdings in the Waranga Domain.

Figure 1 Plan of January 2020 Dipole-Dipole IP Survey

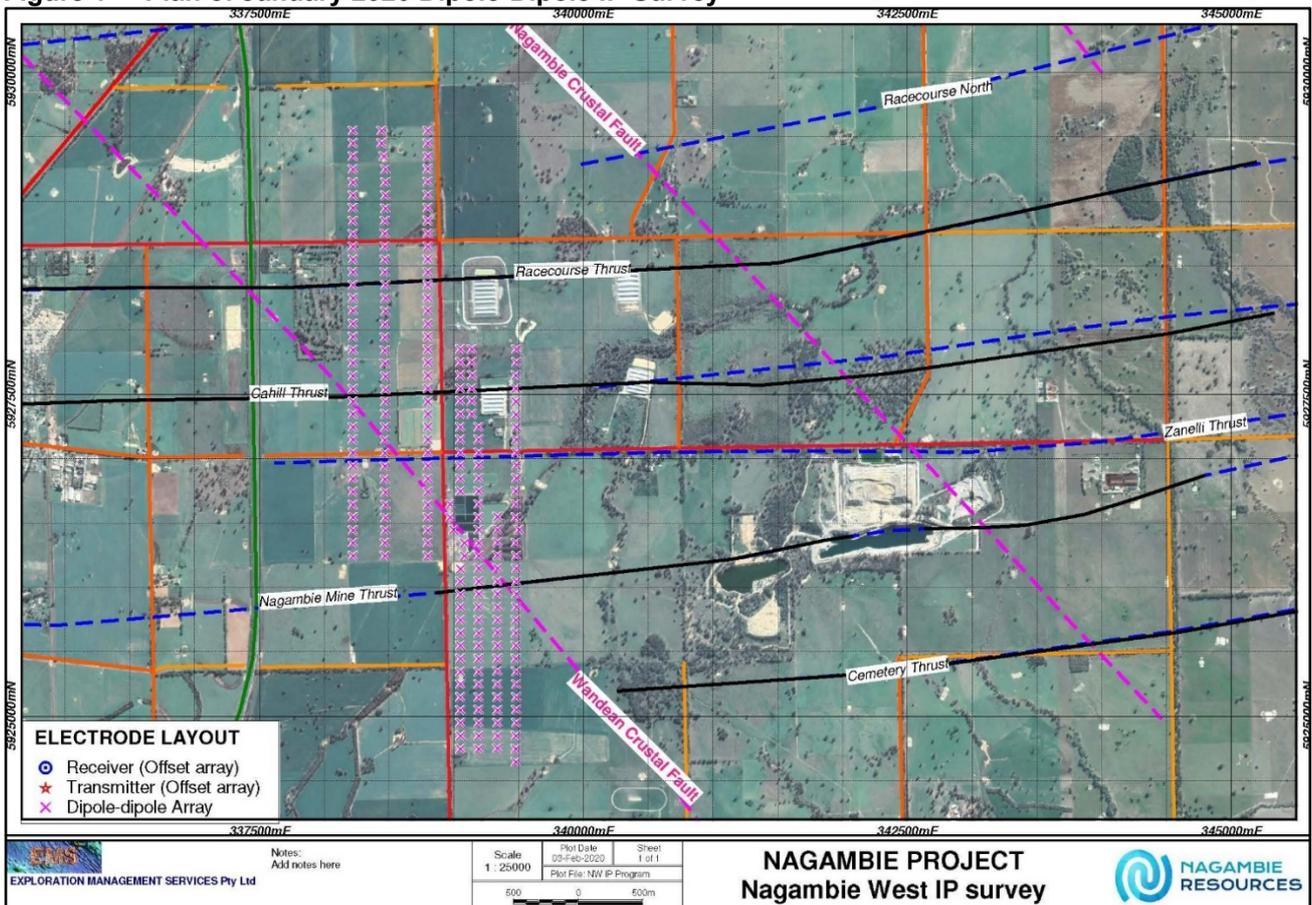


Figure 2 Plan of IP Chargeability Anomalies at -175m RL

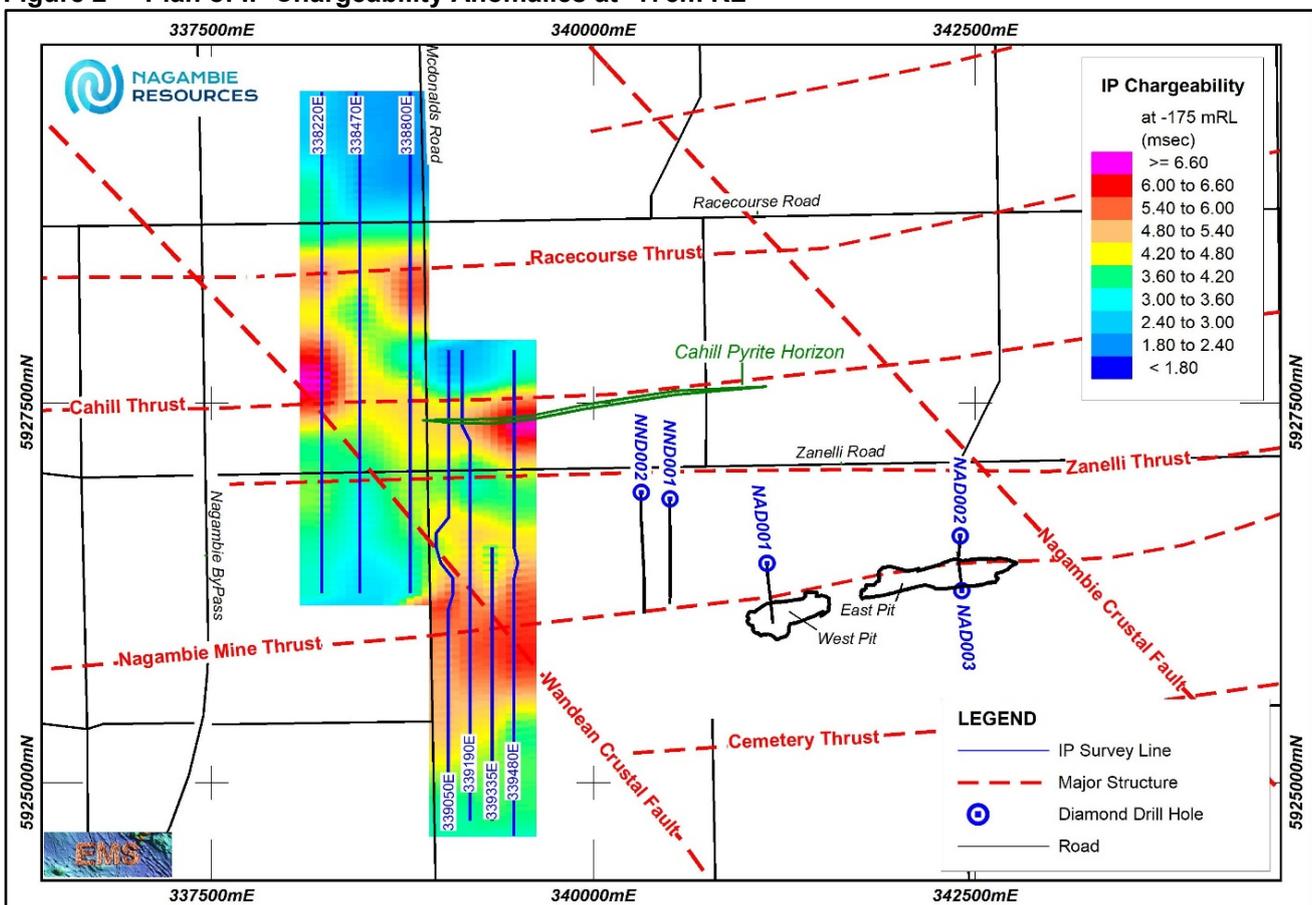


Figure 3 IP Chargeability Section – Line 338220E

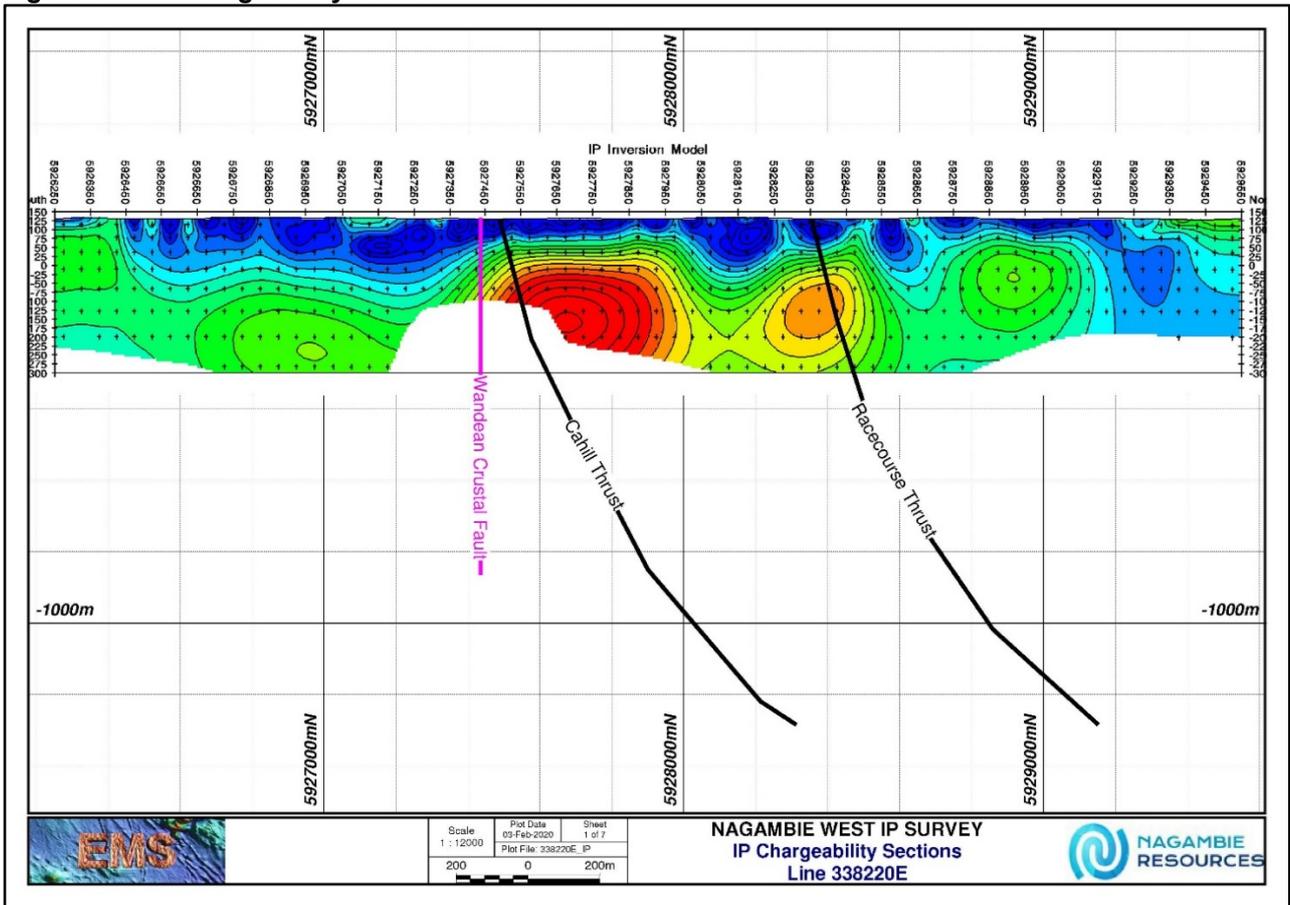


Figure 4 IP Chargeability Section – Line 338470E

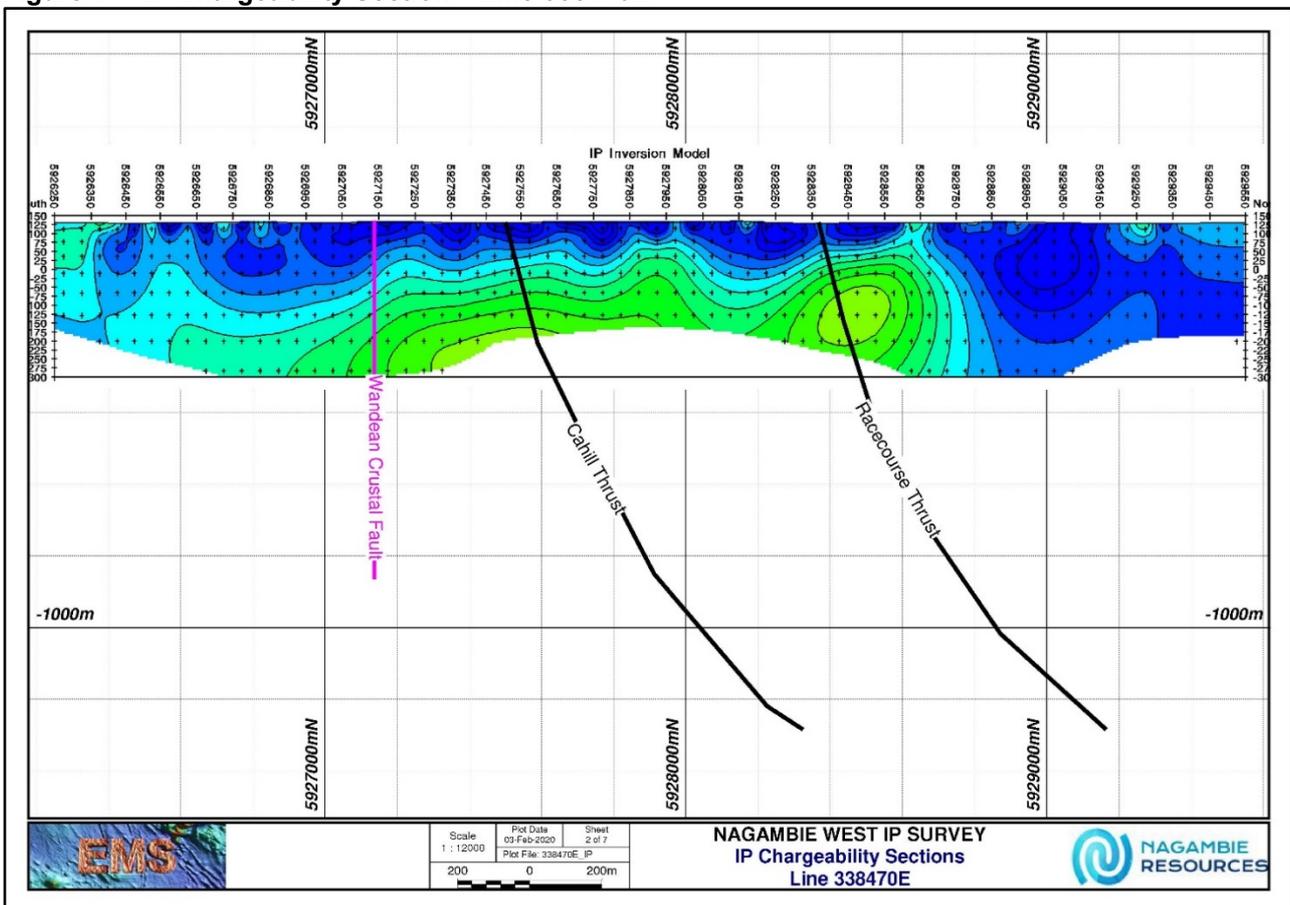


Figure 5 IP Chargeability Section – Line 338800E

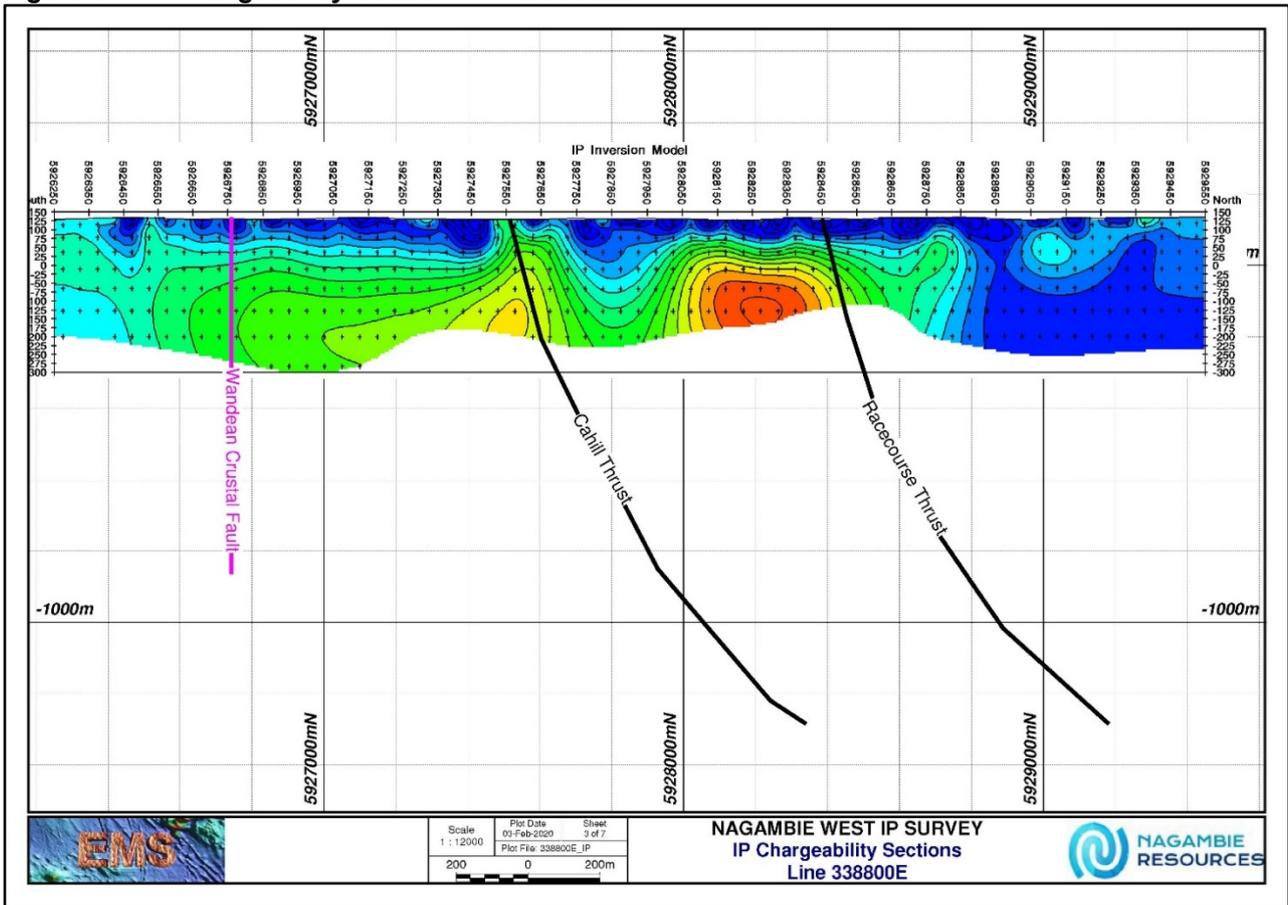


Figure 6 IP Chargeability Section – Line 339050E

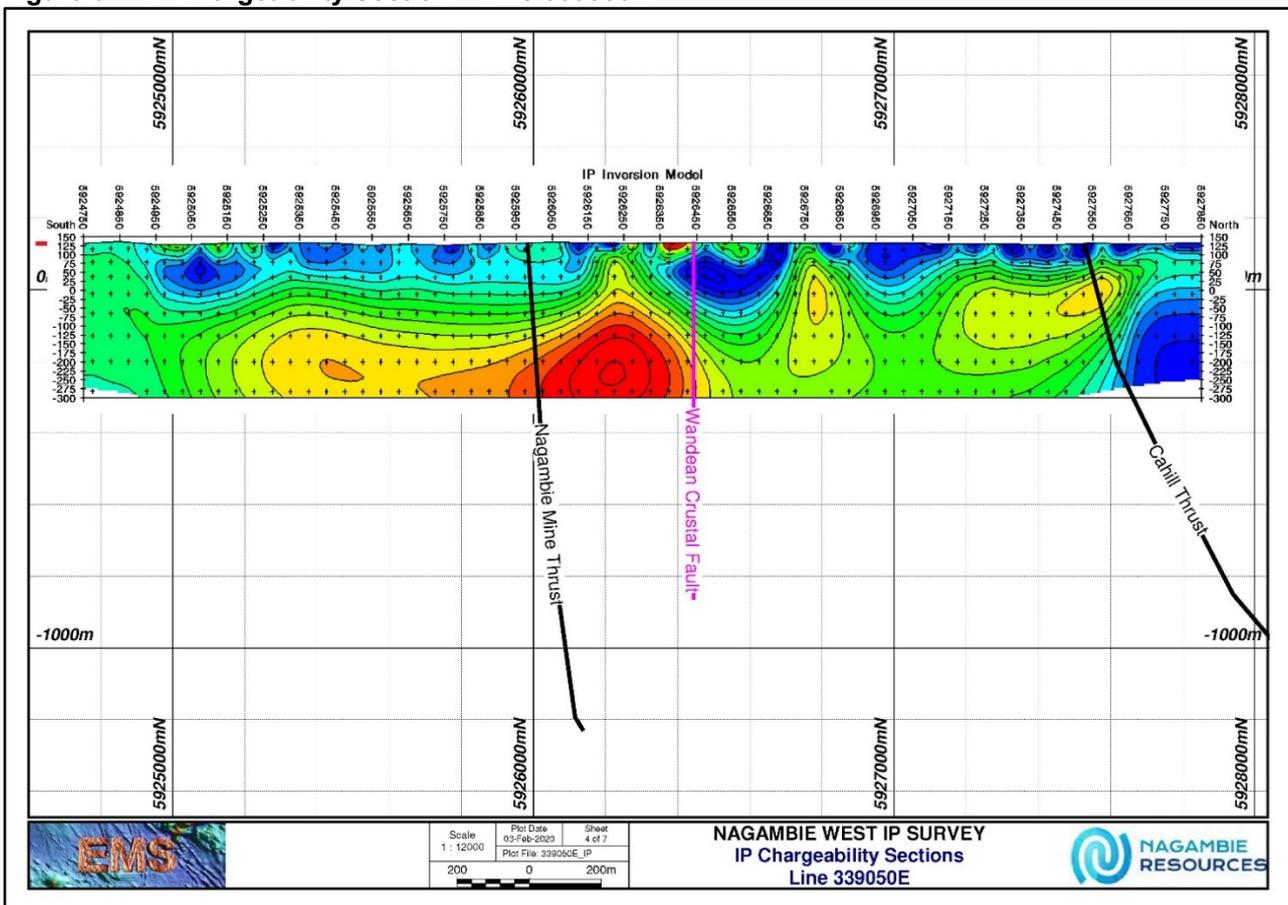


Figure 7 IP Chargeability Section – Line 339190E

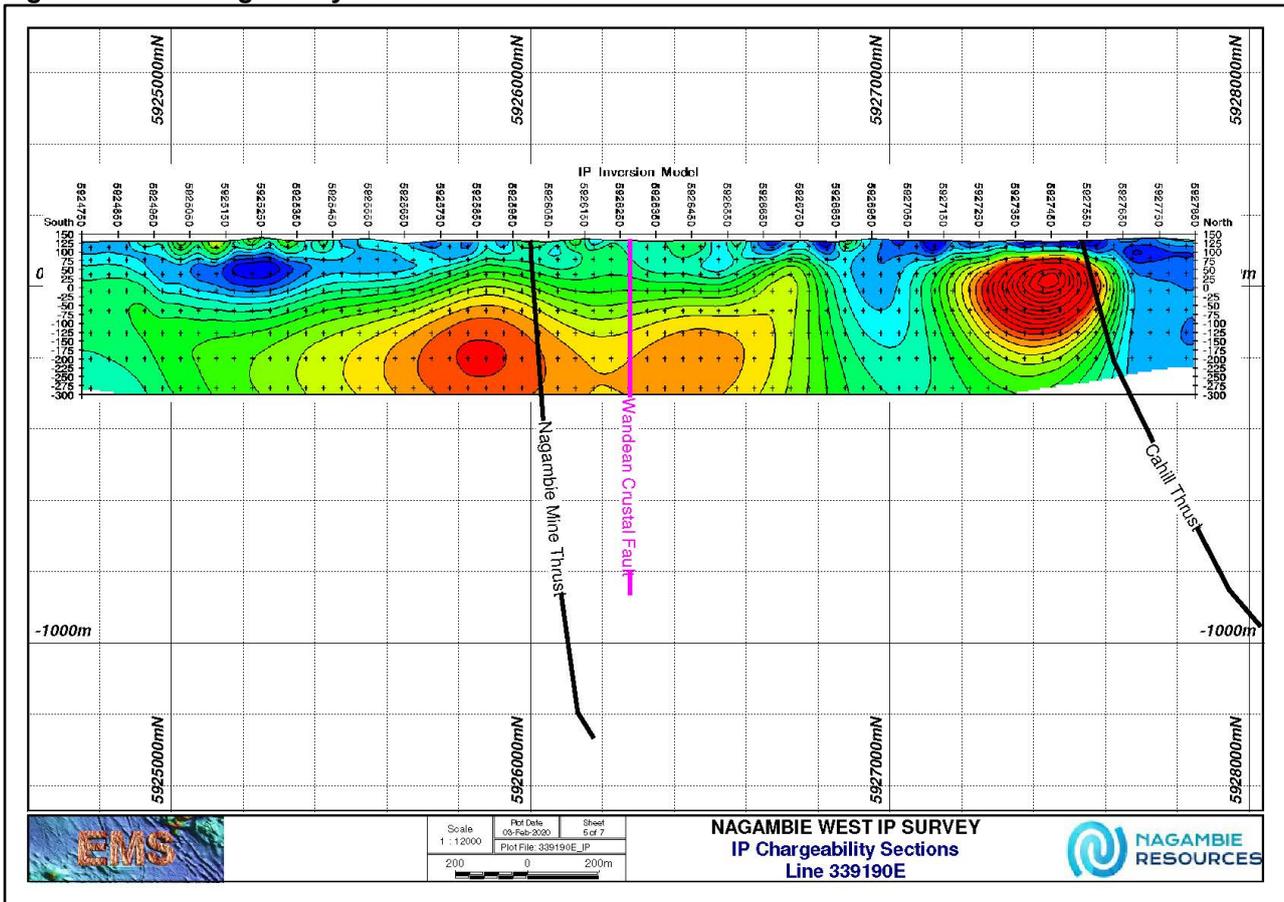


Figure 8 IP Chargeability Section – Line 339335E

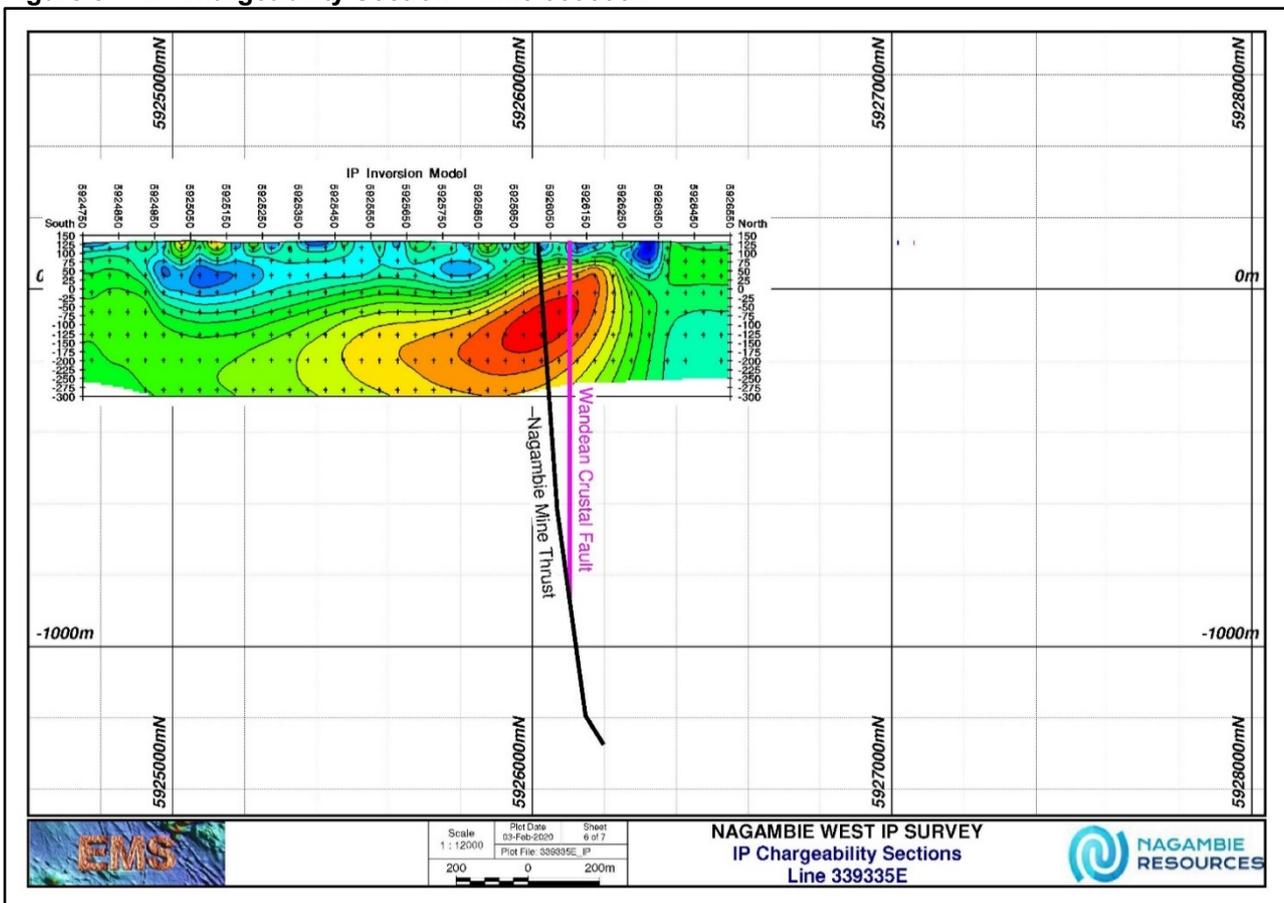


Figure 9 IP Chargeability Section – Line 339480E

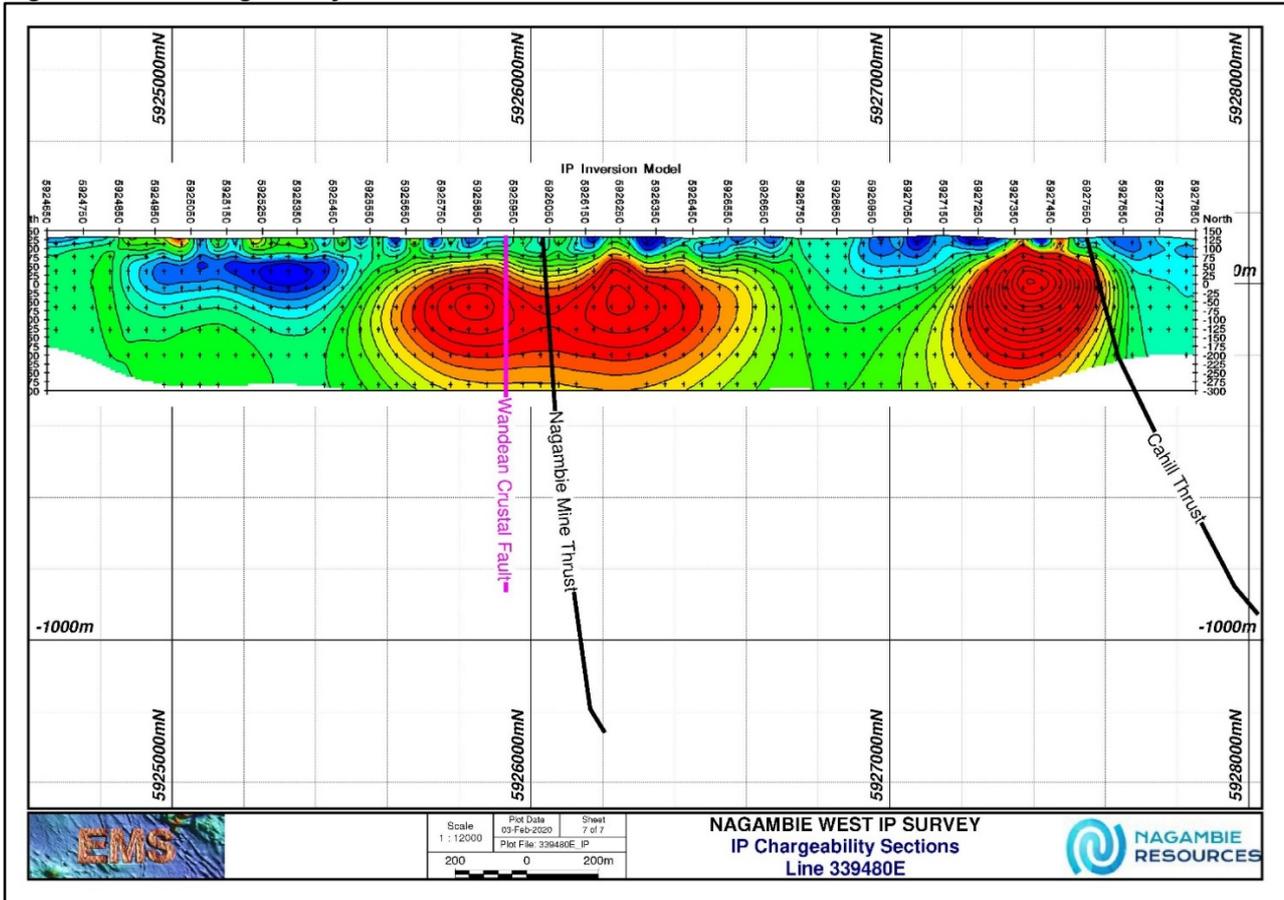
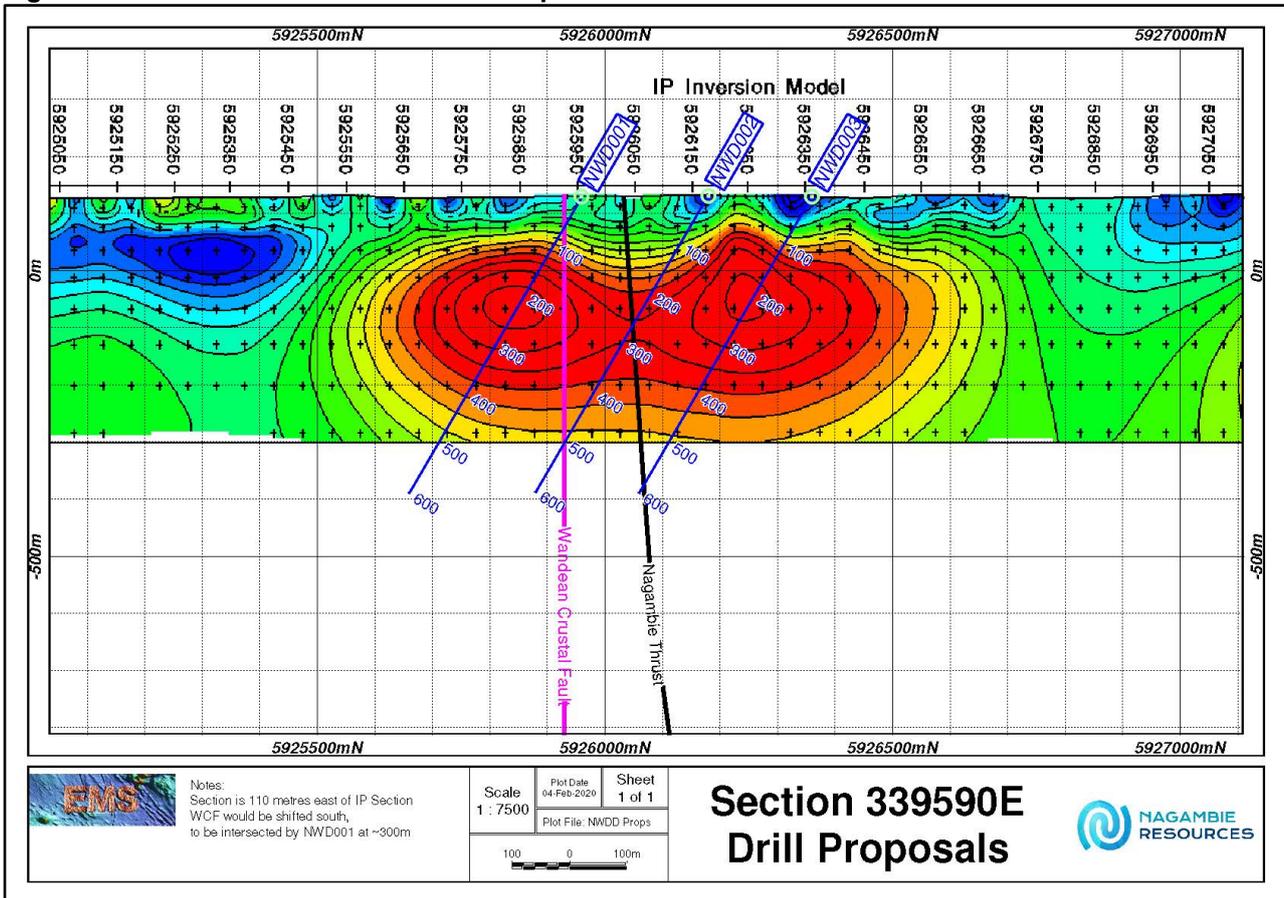


Figure 10 Section 339590E Drill Hole Proposals



Additional IP Survey Lines and Proposed Drilling

Additional north-south IP lines are being planned to the east and west of the January 2020 IP survey.

Figure 10 shows three proposed drill holes on Section 339590E that would intersect the multiple indicated thrust faults and the Wandean Crustal Fault.



James Earle
Chief Executive Officer

STATEMENT AS TO COMPETENCY

The Exploration Results in this report have been compiled by Dr Rod Boucher and Mr Geoff Turner. Rod Boucher has a PhD in Geology, is a Member and RPGeo of the Australian Institute of Geoscientists and is a Member of the Australian Institute of Mining and Metallurgy. Geoff Turner is a Fellow of the Australian Institute of Geoscientists. Both Rod Boucher and Geoff Turner have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which they are undertaking, to qualify as Competent Persons as defined in the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Both consent to the inclusion in this report of these matters based on the information in the form and context in which it appears.

FORWARD-LOOKING STATEMENTS

This report contains “forward-looking statements” within the meaning of securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as “may”, “will”, “expect”, “target”, “intend”, “plan”, “estimate”, “anticipate”, “believe”, “continue”, “objectives”, “outlook”, “guidance” or other similar words, and include statements regarding certain plans, strategies and objectives of management and expected financial performance. These forward-looking statements involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Nagambie Mining and any of its officers, employees, agents or associates. Actual results, performance or achievements may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Exploration potential is conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. Readers are cautioned not to place undue reliance on forward-looking statements and Nagambie Resources assumes no obligation to update such information.

JORC 2012 Edition, Table 1 Checklist

Section 1: Sampling Techniques and Data Criteria	Explanation
Drilling & Sampling techniques	NA.
Drill sample recovery	NA.
Logging	NA.
Sub-sampling techniques and sample preparation	NA.
Quality of assay data and laboratory tests	<p>January 2020 IP Survey: Array: dipole-dipole Station, dipole size: 100m Line spacing: various n-spacing: up to n=16 coordinate system: local grid, truncated GDA94 z55 Frequency: 0.125Hz Transmitter current: 8-40A Transmitter: Zonge International GGT-30 Receiver: GDD GRX-32</p> <p>Receiver electrodes: porous copper sulphate pots Transmitter electrodes: metal lined pits ~2x2m GPS: handheld Garmin, accuracy ~+/-3m</p>
Verification of sampling and assaying	NA
Location of data points	<p>Transmitter and receiver stations recorded by 12-channel GPS. GPS accuracy is ±3 metres. All coordinates are in MGA94, Zone 55 and AHD Elevations were interpolated from data obtained from VicMap topographic data and historic mine surveys.</p>
Data spacing and distribution	<p>Transmitter and receiver electrodes placed at 100 metre intervals. • This spacing is not of sufficient density to allow the estimation of a mineral resource.</p>
Orientation of data in relation to geological structure	Survey lines were placed at approximately 90° to assumed strike of mineralisation.
Sample security	NA
Audits or reviews	No audits or reviews have been undertaken

Section 2: Reporting of Exploration Results Criteria	Explanation
Mineral tenement and land tenure status	• The area surveyed is within EL 5430, EL 5511 and EL 6508 - all 100% owned by Nagambie Resources Limited. The tenements are in good standing with no known impediments.
Exploration done by other parties	None.
Geology	• Target is disseminated gold (+arsenic and antimony) mineralisation in silicified sediments, hosted by folded and fractured Devonian sediments in a reverse fault system. Primary gold mineralisation is suspected to be arsenopyrite hosted.

Section 2: Reporting of Exploration Results Criteria	Explanation
Drill hole Information	NA
Data aggregation methods	NA
Relationship between mineralisation widths and intercept lengths	NA
Diagrams	Refer to figures in the body of the text. Plans and sections of modelled data are shown.
Balanced reporting	All modelled chargeability data are presented for each cross section of this survey.
Other substantive exploration data	No other exploration results that have not previously been reported are material to this report.
Further work	Planning for drilling and additional IP survey lines is in progress.