

WANDEAN CRUSTAL FAULT AND NAGAMBIE MINE WEST

- ❖ The Wandean Crustal Fault (WCF) is now considered to be the pathway responsible for the sulphide-gold mineralisation at both the Nagambie Mine and the Wandean Prospect. Wandean, 9 km north west of the Nagambie Mine, was discovered by the Company in 2014.
- ❖ Detailed 3D modelling of the Induced Polarisation (IP) chargeability data for the Nagambie Mine area (see Figures 1 and 2 on page 2) indicates that the most intensive, highest-grade, sulphide-gold mineralisation could occur between 0.3 km and 1.8 km to the west of the West Pit at the Nagambie Mine. This 1.5 km long robust IP anomaly, which includes the smaller Nagambie North anomaly, has been called Nagambie Mine West.
- ❖ The resultant new hypothesis for the Nagambie Mine mineralisation is that hydrothermal fluids flowed up the deep north-west-striking WCF under pressure and then flowed eastwards from the WCF for around 3.4 km along the nearer-surface east-west-striking Nagambie Thrust Fault. When temperature and pressure dropped to conducive levels, precipitation of quartz, pyrite, arsenopyrite, stibnite and gold occurred.
- ❖ One outcome of the 3D modelling and the new hypothesis is that the 1990s-mined East Pit, which contained the only gold mineralisation that outcropped (Hill 158), will also likely have contained the lowest grade mineralisation. The great majority of the precipitation of quartz, sulphides and gold out of the hydrothermal fluids is considered to have taken place before the remaining fluids reached Hill 158.
- ❖ Gold grades intersected in the drilling at Wandean were statistically higher than the gold grades recorded at the Nagambie Mine, which may reflect Wandean being closer to the WCF than are the East and West Pits at the Nagambie Mine.
- ❖ Diamond drilling of the compelling high-grade Nagambie Mine West target is planned to commence in several days' time, starting at Nagambie North.
- ❖ Future IP surveys will initially focus on Wandean and the 9 km of the WCF between Nagambie Mine West and Wandean.

COMMENTARY

Nagambie Resources' Chairman, Mike Trumbull said: *"The detailed 3D IP modelling of the Nagambie Mine area, and the new fluids-flow hypothesis for the formation of the gold mineralisation that has resulted from it, are very exciting developments for the Company. We will shortly be drilling Nagambie Mine West, targeting high-grade sulphide gold."*

"The WCF is only one of many crustal faults within our 2,000 sq km of tenements that cover the most prospective ground in the Waranga Province. All the crustal faults will need to be tested with IP geophysics over time but, in the near term, the WCF is showing that it could host multiple high-grade underground gold deposits."

NAGAMBIE RESOURCES

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

Underwater storage of sulphidic excavation material (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, North-East Link and East-West Link.

Recycling of the overburden and tailings dumps can produce sand and aggregates for concrete, road base material and road gravel.

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.

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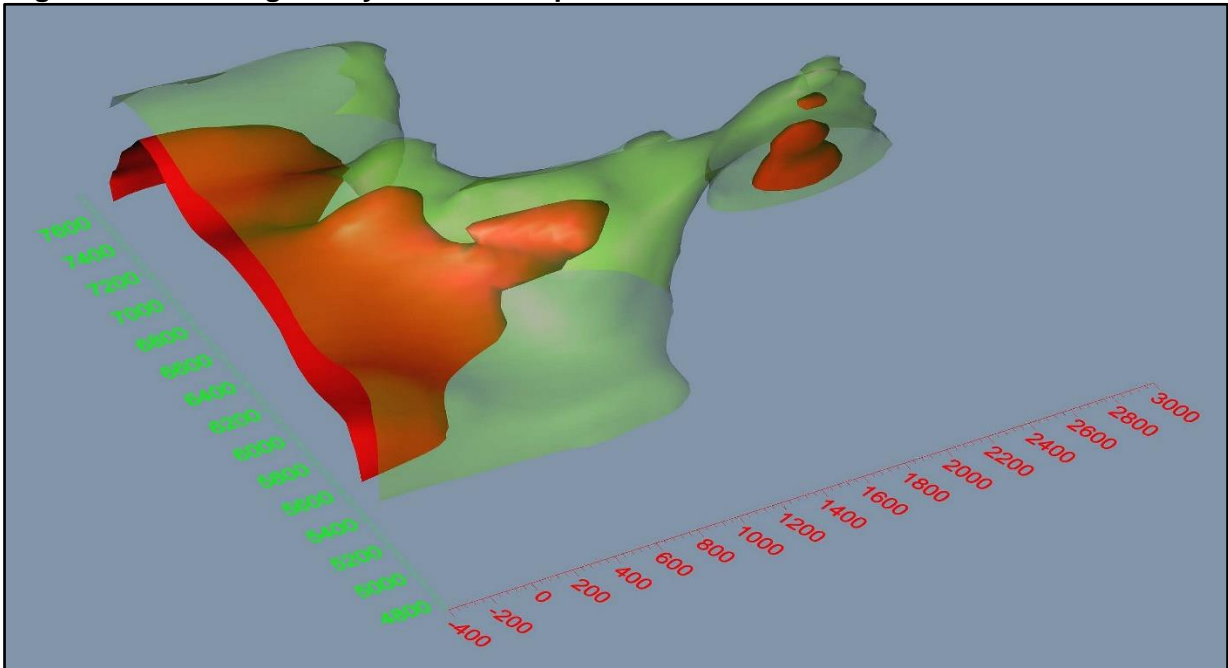
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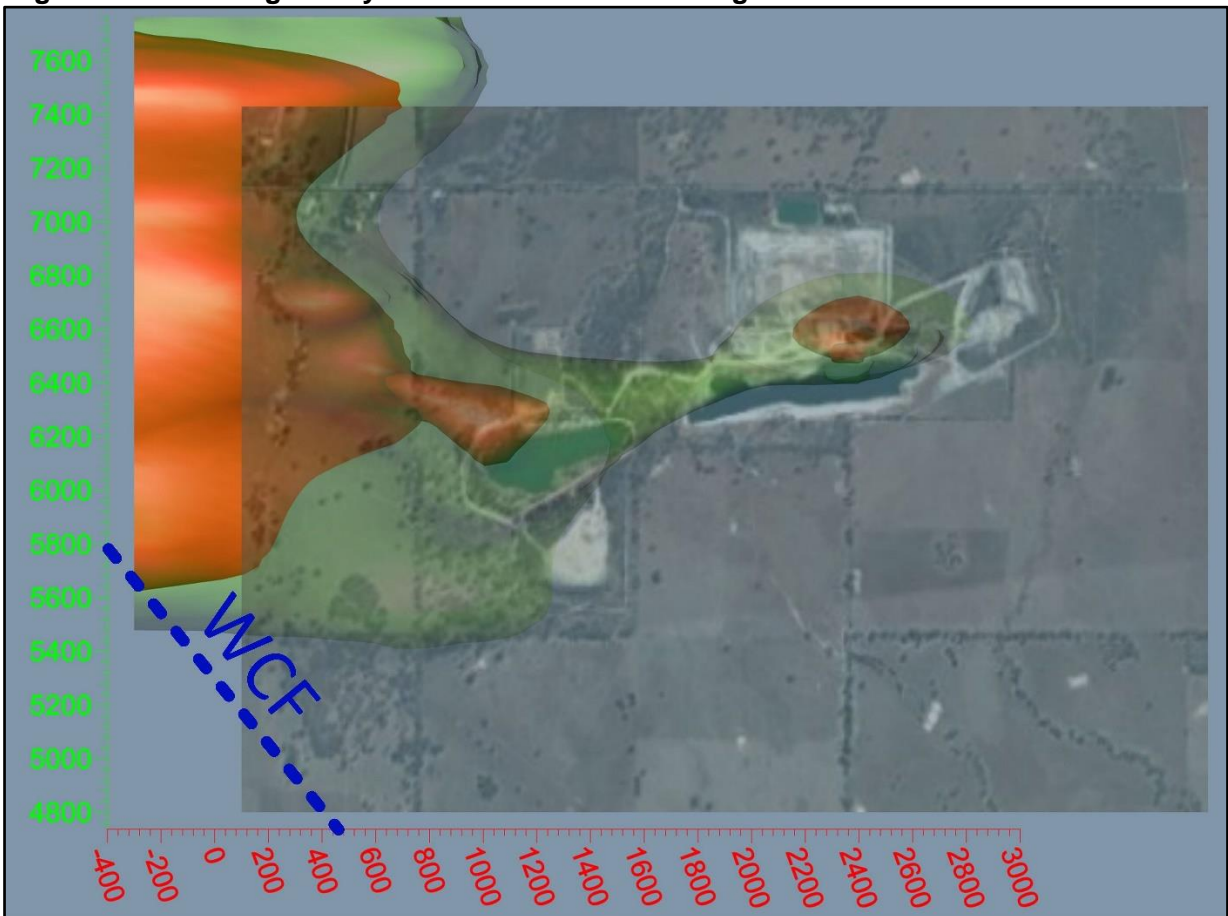
Detailed 3D Modelling of the IP Survey Data for the Nagambie Mine Area

Figure 1 3D Chargeability Shells - Perspective View from the South West



- (1) Outer green shell is IP chargeability 5.0; inner red shell (looks orange through green) is IP chargeability 6.6.
- (2) Eastings and northings used for the IP survey are in metres.
- (3) Vertical scale is exaggerated x 3
- (4) The significant widening of the IP chargeability aura to the west is not indicative of increasing width of the sulphides causing the aura, rather the increasing intensity or grade of the sulphides to the west.

Figure 2 3D Chargeability Shells - Plan View with Nagambie Mine Area in overview



- (1) WCF shows the interpreted position of the deep Wandean Crustal Fault on the figure.
- (2) The significant widening of the IP chargeability aura to the west is not indicative of increasing width of the sulphides causing the aura, rather the increasing intensity or grade of the sulphides to the west.

The initial results for the Nagambie Mine IP survey, together with a JORC 2012 Edition Table 1 Checklist, were released by Nagambie Resources on 22 March 2018.

More detailed examination and 3D modelling of the IP chargeability data for the Nagambie Mine area has been carried out by the IP contractor, Zonge Engineering and Research Organisation, and one of Nagambie Resources' geological consultants, Geoff Turner.

The 3D model developed (summarised in Figures 1 and 2) has been determined to be robust. The principal qualification with the 3D model is that the significant widening of the IP chargeability aura to the west of the West Pit is not indicative of increasing relative width of the sulphide mineralisation causing the aura, although some increase in width could occur. Rather, the significant increase in the width of the aura to the west is mostly indicative of the increasing intensity or grade of the sulphide mineralisation giving off the IP chargeability aura.

Nagambie Resources' Gold Model for the Waranga Province

The gold model has been enhanced over the years and in summary currently includes:

- ❖ The host rocks are extensive marine siltstone and sandstone sediments with a total thickness of around 6 km. These rocks rarely outcrop in the region, the East Pit at the Nagambie Mine being an exception, being mostly covered by recent Murray Basin unconsolidated clays and sands;
- ❖ A regional north-south tectonic compression event caused progressive folding of these originally-horizontal sedimentary rocks, resulting in numerous east-west-striking and near-vertical north-dipping thrust faults. Adjacent to these thrust faults, folding and fracturing of the rocks was pronounced;
- ❖ Crustal hydrothermal fluids rose up deep crustal faults under pressure around 370 million years ago;
- ❖ Where the deep crustal faults, predominantly north-west striking, intersected the nearer-surface east-west-striking thrust faults and folds, the hydrothermal fluids moved along and up the thrust faults under pressure, filling all the available fractures in the adjacent sedimentary rocks. When the temperature and pressure conditions were conducive, precipitation of quartz, pyrite (iron sulphide), arsenopyrite (arsenic-iron sulphide), stibnite (antimony sulphide) and gold from the hydrothermal fluids took place;
- ❖ Gold grade correlates well with both % pyrite and % arsenopyrite at the Nagambie Mine and Wandean. The gold grade correlation with % stibnite is generally very poor;
- ❖ Sulphide-gold mineralisation will occur in folded and fractured siltstone-rich zones, but more intense mineralisation will occur in the brittle sandstone-rich zones; and
- ❖ Discrete IP chargeability highs in the Waranga Province will most likely represent anomalous concentrations of hydrothermal pyrite and arsenopyrite within folded and fractured sandstone-rich zones adjacent to the major thrust faults.

Hydrothermal Fluids Flow Hypothesis for the Nagambie Mine

Prior to the more detailed interrogation of the 2018 Induced Polarisation (IP) geophysical survey data for the Nagambie Mine area, a principal hypothesis had been that the Nagambie Crustal Fault (NCF) had been the pathway for the gold mineralisation at the Nagambie Mine.

The NCF and the WCF are both north-west-striking crustal faults mapped by Nagambie Resources from publicly available gravity data. The NCF is around 500m to the east of the East Pit at the Nagambie Mine and the WCF is around 1,800m to the west of the West Pit at the Nagambie Mine. The two pits and the unmined ground between them cover around 1,600m, with the two crustal faults being around 3,900m apart in an east-west direction.

The WCF is indicated to be only around 400m west of the western limit of the Nagambie Mine IP Survey where the WCF and the Nagambie Mine Thrust intersect. The new replacement hypothesis for the hydrothermal fluids is that the fluids rose up the WCF (not the NCF) under pressure and then flowed eastwards (not westwards) and upwards along the Nagambie Thrust Fault, resulting in the indicated sulphides at Nagambie North and finally the mineralisation at the Nagambie Mine. The width of the IP chargeability high, mostly representing the intensity of the indicated sulphide-gold mineralisation, decreases

significantly to the east, implying that the greatest precipitation of mineralisation out of the hydrothermal fluids occurred closer to the WCF. Under the new hypothesis, the gold mineralisation at the East Pit is the only place where the hydrothermal fluids reached the current day surface (at Hill 158) and represents the most-eastern, least-sulphidic, lowest-grade mineralisation.

The WCF, under Nagambie Resources' regional gold model, also is the indicated pathway for the hydrothermal fluids that resulted in the gold mineralisation at Wandean, 9 km north west of the Nagambie Mine, that the Company discovered in 2014. The gold grades intersected in the reverse cycle percussion (RC) drill holes at Wandean were statistically higher than the gold grades recorded at the Nagambie Mine, which may reflect the Wandean mineralisation being closer to the WCF than the Nagambie Mine mineralisation.



James Earle
Chief Executive Officer

STATEMENT AS TO COMPETENCY

The Exploration Results in this report have been compiled by Mr Geoff Turner, who is a Fellow of the Australian Institute of Geoscientists, has more than ten years in the estimation, assessment, and evaluation of mineral resources and ore reserves, and has more than 20 years in exploration for the relevant style of mineralisation that is being reported. In these regards, Geoff Turner qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Geoff Turner is a Director of Nagambie Resources Limited and consents 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.