

HIGHLIGHTS

- ❖ Wandean diamond hole WTD002 progressing well at 387m downhole and on target to intersect the IP chargeability high of 26.0 mV/m at around 770m downhole (300m vertically below surface).
- ❖ The WTD002 sulphide-gold target is supported by the strong IP anomaly, lies beneath a gold-arsenic-antimony soil anomaly, is coincident with a projected thrust fault, and overlies the significant hydrothermal alteration of the sediments seen in WTD001.
- ❖ The strong Wandean IP anomaly occurs only 600m east of the Wandean Crustal Fault and supports Nagambie Resources' "intersecting-faults" geological model for the Waranga Domain.
- ❖ The EPA has given Nagambie Resources written confirmation that the Landfill Levy is being charged on the disposal of waste acid sulfate soil and rock (WASS, including PASS) to all licensed landfills in Victoria. Further, the EPA confirmed that this WASS is often contaminated by other pollutants (Nagambie Resources considers this would likely only occur for surface WASS soil), requiring it to be deposited in a landfill cell.
- ❖ A logical conclusion of the EPA confirmation is that landfills, while the only possible sites for contaminated WASS, are not cost competitive in regards to the management of clean, uncontaminated WASS / PASS. This is because the Landfill Levy, currently \$65.90 per tonne, greatly exceeds the trucking costs to the alternative "lime treatment" and "underwater storage" sites which have EPA-approved Environment Management Plans (EMPs) and are not subject to the Landfill Levy.
- ❖ Nagambie Resources therefore concludes that the lime treatment sites are the only real competitors to the best practice PASS underwater storage sites, of which the Nagambie Mine has the biggest capacity at around 5.0 million tonnes.
- ❖ The lime treatment sites in Melbourne have two significant drawbacks. Firstly, while lime mixing with WASS soil is proven and common practice in Australia, lime mixing with WASS rock is not proven and common practice, certainly not at rates around 1.0 million tonnes per year. Secondly, Nagambie Resources has calculated that the lime treatment sites in Melbourne would produce more than four times the total equivalent carbon emissions per tonne of PASS than an underwater storage site such as the Nagambie Mine.

COMMENTARY

Nagambie Resources' Chairman, Mike Trumbull said: "WTD002 is halfway to its compelling IP sulphide-gold target. At 26.0 mV/m, the target is four times stronger than the highest IP chargeability reading recorded under the East Pit at the Nagambie Mine (6.5 mV/m). Our geological team has high hopes for the pending intersection.

"EPA confirmation that the Landfill Levy, currently \$65.90 per tonne, is to apply to all PASS disposed to Victorian landfills effectively, and correctly from an environmental point of view, eliminates landfills from taking uncontaminated PASS.

"Nagambie Resources considers that underwater storage of PASS rock is the only viable operational alternative for large scale, 24/7 TBM tunneling projects such as the North East Link, which is expected to generate around 5.4 million tonnes of WASS rock."

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

437,407,802

ASX CODE: NAG

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GOLD EXPLORATION

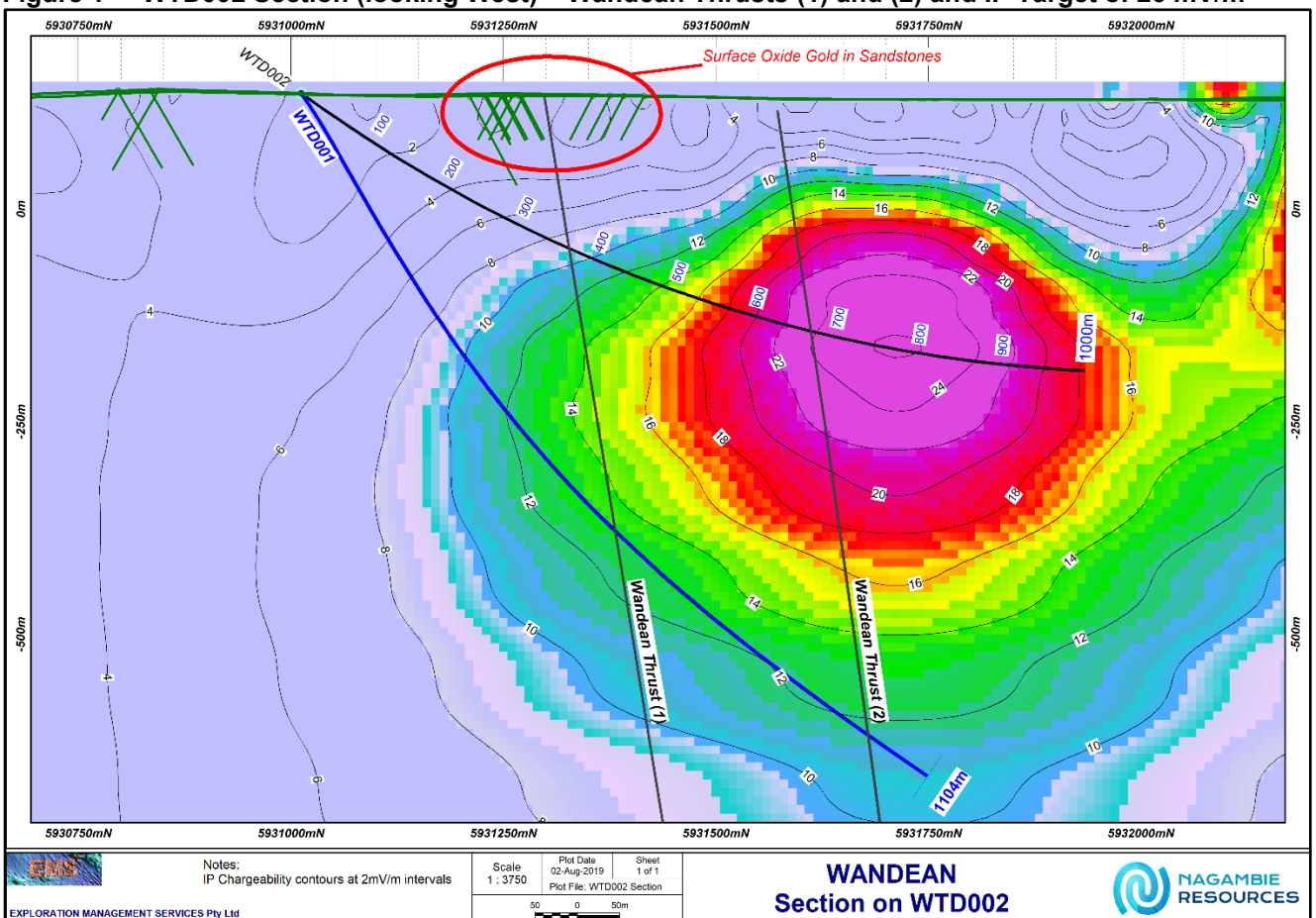
Gold exploration for Fosterville-style high-grade underground sulphide-gold deposits in Nagambie Resources' Waranga Domain tenements has reached an interesting stage with the drilling of a strong Induced Polarisation (IP) sulphide-gold target at Wandean.

WTD002 Diamond Hole

Wandean hole WTD002 (refer Figure 1) is 387m downhole and on target. It is designed to intersect, at around 770m downhole, the centre of an IP chargeability anomaly four times stronger than the one intersected under the Nagambie Mine East Pit in 2018 (26 mV/m versus 6.5 mV/m).

The WTD002 sulphide-gold target is supported by the strong IP anomaly, lies beneath a gold-arsenic-antimony soil anomaly, is coincident with a projected thrust fault, and overlies the significant hydrothermal alteration of the sediments seen in WTD001.

Figure 1 WTD002 Section (looking West) – Wandean Thrusts (1) and (2) and IP Target of 26 mV/m



WTD002 intersected significant quartz between 317m and 323m downhole (see photo of core trays in Photo 1) beneath the oxide-gold mineralisation at Wandean, close to the projected position of Wandean Thrust (1) shown in Figure 1.

IP Survey over Intersection of Wandean Crustal Fault and Nagambie Mine Thrust

Another ground IP survey is to be carried out, as soon as cropping allows, over the section of the Wandean Crustal Fault to the west of the Nagambie Mine, 7km south east of Wandean (refer Figure 3). A strong IP response in this location would highlight the prospectivity of Nagambie Resources' 2,000 sq km of tenements in the Waranga Domain.

Photo 1 WTD002 Core Trays: Quartz between 317m and 323m Downhole



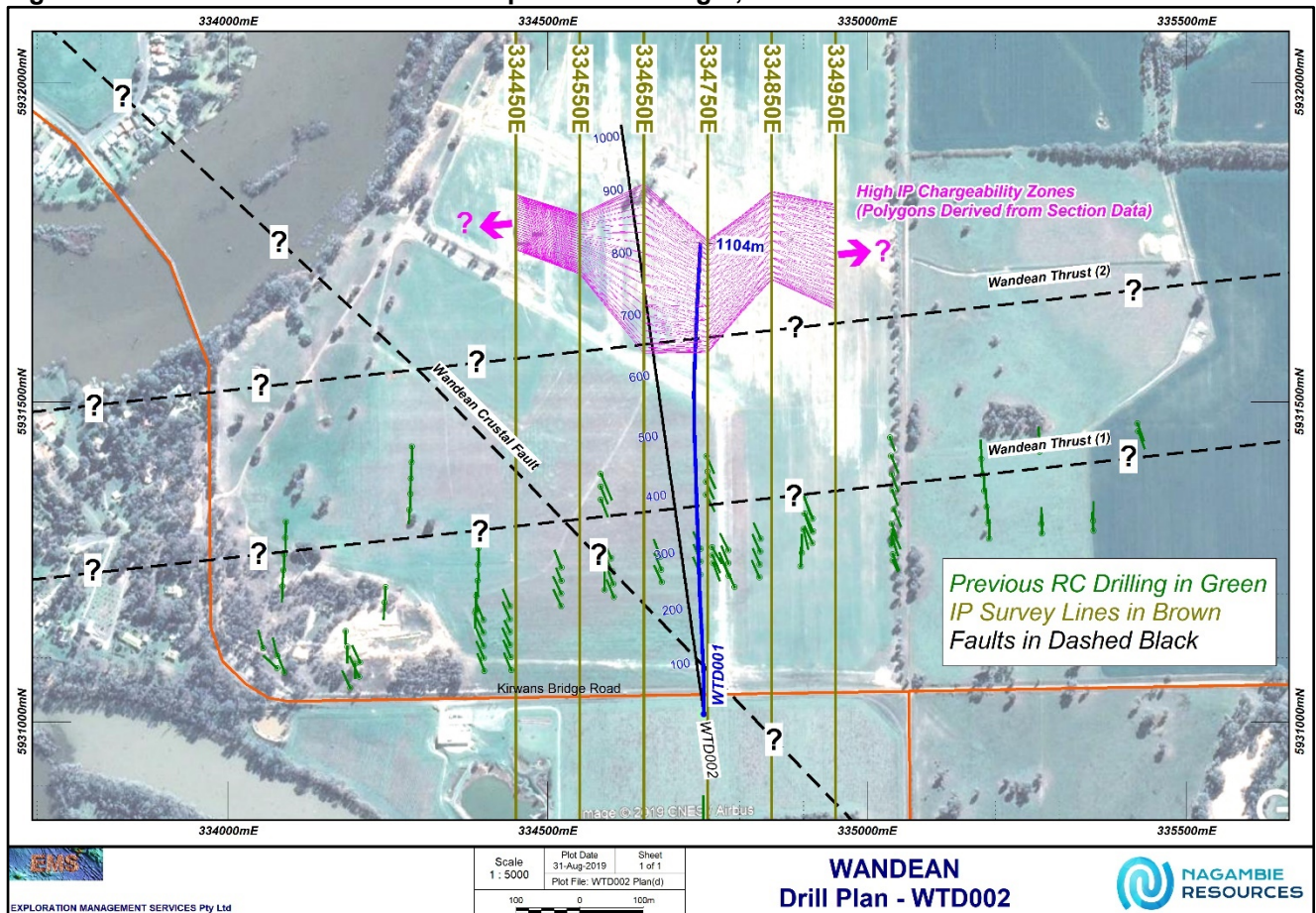
Waranga Domain Geological Model (WaGM)

The strong IP anomaly being drilled at Wandean occurs only 600m east of the Wandean Crustal Fault (refer Figure 2). This supports Nagambie Resources' WaGM which currently includes:

- ❖ The host rocks are extensive marine siltstone and sandstone sediments (turbidites) with a total current-day thickness of at least 6 km.
- ❖ Significant erosion of the turbidites since formation has occurred to expose the Strathbogie granites to the south. The turbidites 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;
- ❖ Regional northeast-southwest compression followed by later north-south compression (refer Figure 4) 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, predominantly north-west striking, under pressure around 370 million years ago;
- ❖ Where the deep crustal faults intersected the nearer-surface east-west-striking thrust faults, the hydrothermal fluids moved both eastwards and westwards along and up the thrust faults under pressure, filling all the available fracture openings in the adjacent sedimentary rocks and occasionally flooding coarse sandstone units. When the temperature and pressure conditions at formation fell to conducive levels, precipitation of quartz, various carbonates, pyrite (iron sulphide), arsenopyrite (arsenic-iron sulphide), stibnite (antimony sulphide) and gold from the hydrothermal fluids took place.
- ❖ Maximum precipitation of gold could occur immediately adjacent to the crustal faults or various distances east or west of the crustal faults, wherever the temperature and pressure conditions were optimum for precipitation;

- ❖ 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 to date;
- ❖ Sulphide-gold mineralisation will occur in folded and fractured siltstone-rich zones, but more intense mineralisation will occur in the more brittle and more fractured sandstone-rich zones; and
- ❖ Discrete IP chargeability highs in the Waranga Domain will most likely represent anomalous concentrations of disseminated hydrothermal pyrite and arsenopyrite within folded and fractured sandstone-rich zones adjacent to the east-west-striking thrust faults.

Figure 2 WTD002 Plan – Wandean Sulphide-Gold Target, Thrust Faults and Wandean Crustal Fault



Key Waranga Domain Structures

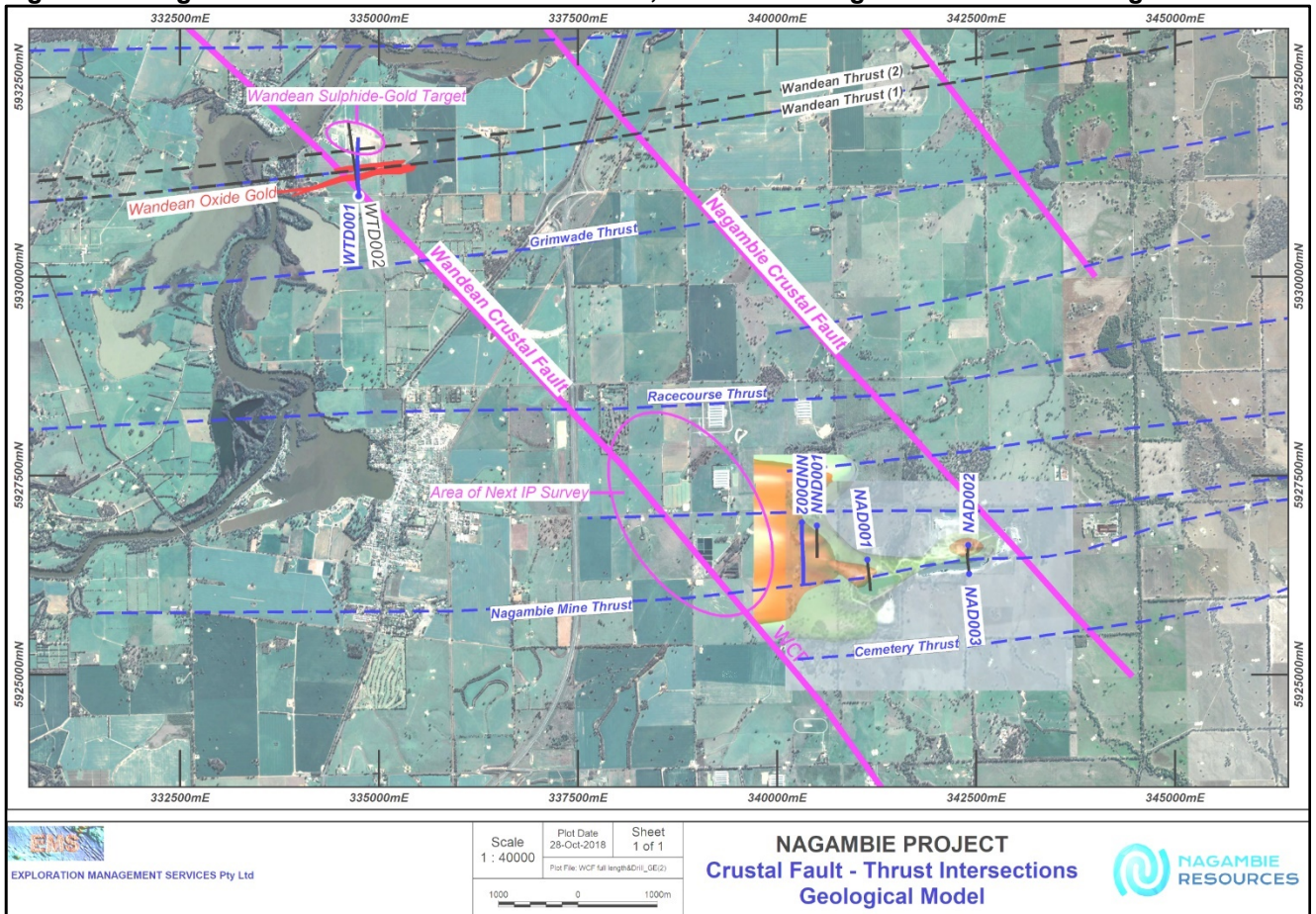
The gravity structures shown in Figure 4 represent deep crustal faults, predominately north-west striking.

The magnetic structures represent the principal nearer-surface thrust faults, predominantly east-west striking. Each principal thrust fault will usually have one or more secondary, adjacent thrust faults. The principal thrust faults shown in the Wandean – Nagambie Mine area were determined from aeromagnetic surveys. Several of these have been confirmed by mapping in road cuttings, as have the ones outside of that area. Nagambie Resources plans to ultimately conduct aeromagnetic surveys over all its Waranga Domain tenements and expects that the density of thrust faults in the Wandean – Nagambie Mine area will be replicated elsewhere in its 2,000 sq km of tenements.

The number of crustal fault – thrust fault intersections in the 2,000 sq km of tenements is a very large number. Mineralised intersections will be only a proportion of the total intersections, but may still be a large number.

However, the chances of the mineralised intersections outcropping at the current-day surface is extremely low given that the great majority of the tenements are covered by Murray Basin sediments varying in thickness from a few metres to over 100 metres. Additionally, the mineralised intersections will predominately only occur in brittle sandstone-rich rocks which alternate irregularly with more-ductile, less-fractured siltstone-rich rocks.

Figure 3 Nagambie Area – Wandean Crustal Fault, Wandean & Nagambie Mine West Targets



For the above reasons, there are, unsurprisingly, only three currently known surface oxide-gold occurrences in Nagambie Resources’ tenements (shown in yellow in Figure 4). All three fit the Company’s crustal fault – thrust fault intersection model.

The Nagambie Mine East Pit was mined between 1989 and 1992. Wandean was a virgin gold discovery by Nagambie Resources in 2014. Tubbs Road would have been worked in the late 1800s but has never been drilled or tested geophysically. The remainder of the 2,000 sq km of tenements remain largely untested.

Gold Tenements and Changes

Nagambie Resources group tenements as at 30 September 2019 are listed in in Table 1.

EL 6163 “Clonbinane South” was reduced in size from 79 sq km to 59 sq km during the quarter.

Figure 4 Waranga Domain – Key Structures, Surface Gold at Wandean, Nagambie Mine & Tubbs Rd

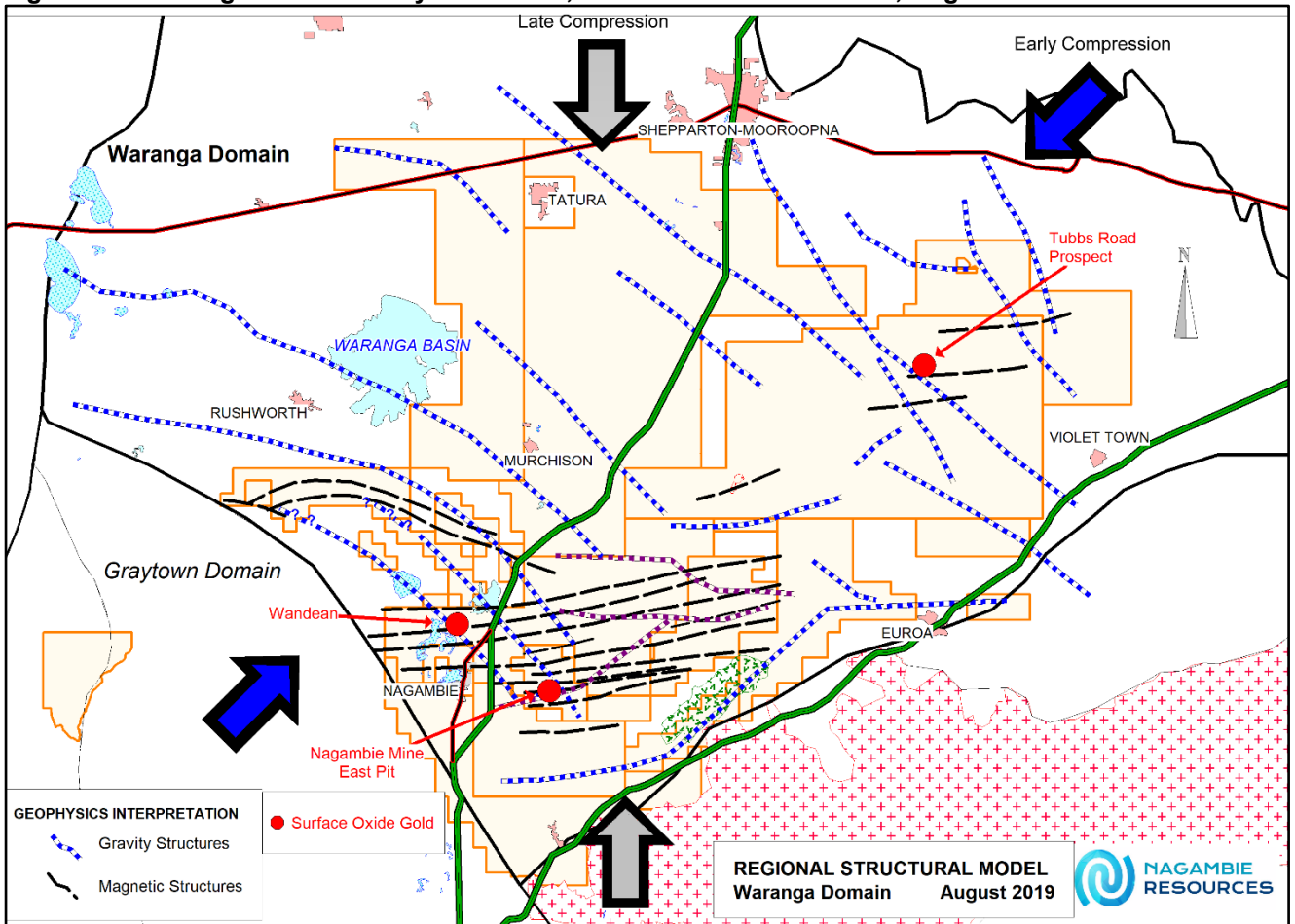


Table 1 Nagambie Resources Group Tenements as at 30 September 2019

Tenement Number	Tenement Name	sq km
MIN 5412	Nagambie Mining Licence	3.6
EL 5430	Bunganail Exploration Licence	181.0
EL 5511	Nagambie Exploration Licence	24.0
EL 5536	Wandean North Exploration Licence	27.0
EL 6212	Reedy Lake North Exploration Licence	17.0
EL 6158	Rushworth Exploration Licence	46.0
RL 2019	Doctors Gully Retention Licence	4.0
EL 6352	Miepoll Exploration Licence	414.0
EL 6421	Pranjip Exploration Licence	94.0
EL 6508	Tabilk Exploration Licence	84.0
EL 6606	Gowangardie Exploration Licence	120.0
EL 6719	Euroa Exploration Licence	132.0
EL 6720	Tatura Exploration Licence	214.0
EL 6731	Arcadia Exploration Licence	493.0
EL 6748	Waranga Exploration Licence	136.0
ELA 6877	Nagambie Exploration Licence Application	8.0
EL 6937	Nagambie East Exploration Licence	10.0
Subtotal Waranga Domain		2,007.6
EL 6163	Clonbinane South Exploration Licence	59.0
RL 6040	Clonbinane Retention Licence	3.0
EL 5546	Redcastle Exploration Licence	51.0
Total		2,120.6

WASS / PASS PROJECT

Waste acid sulfate soil and rock (WASS) can be either potential acid sulfate soil (PASS) or actual acid sulphate soil and rock (AASS). PASS exists below the water table and, if it is excavated and then stored above ground, it naturally oxidises into AASS with attendant acid drainage environmental issues. Best practice management of PASS is to store it under water, preventing oxidation and acid formation.

Nagambie Resources has an Environment Protection Authority of Victoria (EPA)-approved Environment Management Plan (EMP) to store PASS in the legacy water-filled pits at the Nagambie Mine as part of the proposed rehabilitation of those pits. PASS capacity of the pits is around 5.0 million tonnes. The water in the Nagambie Mine open pits is naturally saline and alkaline, making it ideal for PASS management.

Total WASS in the Metro Rail, West Gate Tunnel and North East Link projects that will require management is approximately 8.2 million tonnes.

EPA Confirms Landfill Levy Applies to all WASS / PASS Disposed to Melbourne Landfills

Nagambie Resources had become concerned that the Landfill Levy was not being consistently applied to WASS taken to Melbourne landfills and a detailed enquiry was sent to the EPA seeking clarification.

A written response was received from the EPA in October 2019 and the Company is greatly encouraged as it supports Nagambie Resources' reasoning in establishing the infrastructure to store PASS underwater in the legacy pits at the Nagambie Mine.

The EPA confirmed that the Landfill Levy is being charged on the disposal of all WASS to all licensed landfills in Victoria. Further, it noted that this WASS is often contaminated by other pollutants, requiring it to be deposited in a landfill cell.

A logical conclusion is that landfills, while the only possible sites for contaminated WASS, are not cost competitive in regards to the management of clean, uncontaminated WASS. This is because the Landfill Levy, currently \$65.90 per tonne, greatly exceeds the trucking costs to the alternative "lime treatment" and "underwater storage" sites which have EPA-approved EMPs and are not subject to the Landfill Levy.

Nagambie Resources therefore concludes that the only real competitors to the best practice PASS underwater storage sites such as the Nagambie Mine are the lime treatment sites.

Melbourne Landfill Levy

Infrastructure Victoria (IV) is conducting a review of the waste industry and required infrastructure for the Victorian Government. It has presented an interim report with its final advice due in February 2020.

IV has already flagged that: *"The landfill levy settings need to be changed to encourage uses higher up the waste hierarchy than landfilling. The current cost of landfilling in Metropolitan Melbourne is significantly lower than many other Australian and European jurisdictions."*

Notably, the current Landfill Levy in Melbourne of \$65.90 per tonne is less than half that in Sydney of \$143.60 per tonne.

WASS Categories and Management Options

The approximate WASS soil and rock figures for the major committed infrastructure projects in Melbourne are shown in Table 1 and total 8.3 million tonnes. With future projects under consideration such as the very large Suburban Rail Loop, Metro Rail 2 and a variation on the original East-West Link, total WASS requiring management over the next 10 to 15 years may exceed 20.0 million tonnes.

In and around Melbourne, WASS rock typically doesn't occur less than 25m below the surface and is unlikely to have suffered from anthropological (human) contamination. All WASS within around 25m of surface will therefore most likely be WASS soil and could be contaminated or uncontaminated.

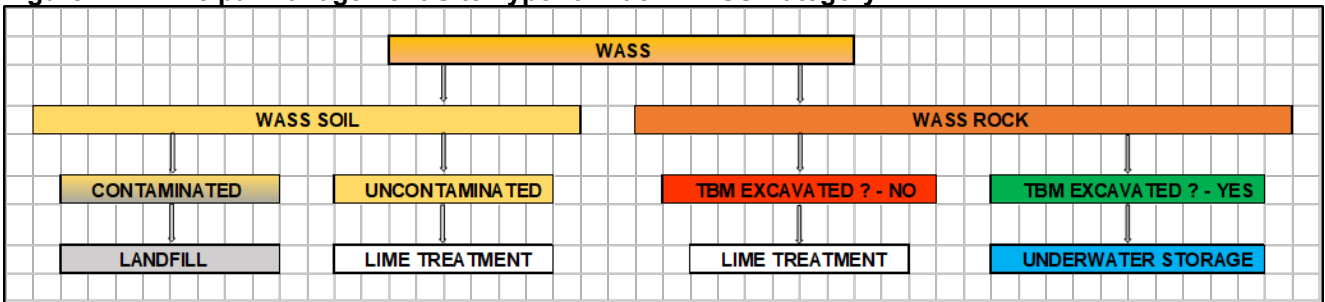
The West Gate Tunnel and the two large road/rail crossing projects will only generate WASS soil (refer Table 1). WASS soil generated from Metro Rail and North East Link will represent approximately 5% and 18% respectively of total WASS for those projects.

Table 1 WASS Summary for Major Melbourne Infrastructure Projects Committed to Date

Waste Acid Sulfate Soil and Rock (WASS)													
m ³ ex-situ = m ³ in-situ x 1.3 bulking factor		Soil and Rock splits for West Gate, Metro Rail and North East Link based on EES Data											
	Soil		Rock		Total		SG Soil		SG Rock		Soil	Rock	Total
	m ³ in-situ	m ³ in-situ	m ³ ex-situ	m ³ ex-situ	m ³ in-situ	m ³ ex-situ	in-situ	ex-situ	in-situ	ex-situ	tonnes	tonnes	tonnes
West Gate Tunnel	85,000	0	110,500	0	85,000	110,500	2.00	1.54	2.65	2.04	170,000	0	170,000
Metro Rail	37,000	514,000	48,100	668,200	551,000	716,300	2.00	1.54	2.65	2.04	74,000	1,362,100	1,436,100
North East Link	594,000	2,036,000	772,200	2,646,800	2,630,000	3,419,000	2.00	1.54	2.65	2.04	1,188,000	5,395,400	6,583,400
2 x Road/Rail Crossings	39,900	0	51,870	0	39,900	51,870	2.00	1.54	2.65	2.04	79,800	0	79,800
Total WASS	755,900	2,550,000	982,670	3,315,000	3,305,900	4,297,670	2.00	1.54	2.65	2.04	1,511,800	6,757,500	8,269,300

All contaminated WASS soil will require disposal to Melbourne landfills (refer Figure 1). Nagambie Resources expects that all the clean, uncontaminated WASS soil will continue to go to lime-treatment sites in Melbourne (refer Figure 1) and be managed in accordance with their EPA-approved EMPs. Liming of WASS soil is proven and common practice in Australia.

Figure 1 Principal Management Site Type for Each WASS Category



Total WASS rock (PASS) to be generated from Metro Rail will be approximately 1.4 million tonnes, the majority of it from tunnelling to be carried out by four Tunnel Boring Machines (TBMs). The balance will be generated from additional excavation of the underground stations using roadheaders. “Early Works” WASS rock generated intermittently, and in relatively small quantities, by roadheaders has probably been taken to lime-treatment sites in Melbourne if it was uncontaminated. Nagambie Resources expects that this may continue to be the case for the roadheader-generated WASS rock from Metro Rail (refer Figure 1) despite there being operational issues with liming rock. Liming of rock piles is not proven and common practice in Australia. A significant operational issue is that the blended lime can be washed through the rock pile in heavy rainfall events.

Total WASS rock to be generated from North East Link will be approximately 5.4 million tonnes, all of it from tunnelling by TBMs. In September 2019, the Victorian Government announced the three consortiums that will be bidding for the construction of North East Link, with tenders to close in mid 2020.

Total TBM-generated WASS rock (PASS) from the Metro Rail and North East Link tunnels will therefore be over 6.0 million tonnes or, on average, around 1.0 million tonnes per year. It is envisaged that all the TBMs on these two projects will be operating continuously 24/7 as the tunnelling is the major critical path activity.

At any particular time, all the TBMs could be tunnelling through PASS rock which would create significant operational issues in terms of PASS management.

When all the TBMs are simultaneously excavating PASS 24/7, the PASS rock will need to be trucked away continuously and managed 24/7 in accordance with the EMP procedures that apply at the receiving sites.

Nagambie Resources considers that only underwater storage sites can accommodate such a large-scale 24/7 requirement by the project managers.

Lime treatment of PASS rock on a continuous 24/7 basis would have to cope with issues such as heavy rainfall, rainfall runoff, consistent lime blending / retention in rock piles, and effective pH testing of all the product heaps as they progress through treatment.

Another significant issue is the carbon emissions produced by the lime treatment sites in Melbourne. Nagambie Resources has calculated that they produce more than four times the total equivalent carbon emissions than an underwater storage site such as the Nagambie Mine. The equivalent carbon emissions from the production of lime needed to treat the PASS, and the lime blending process itself, are more than five times greater than the additional equivalent emissions resulting from the longer trucking distance to Nagambie.

QUARRY PRODUCTS

Nagambie Resources is currently negotiating a commercial arrangement with a large producer and supplier of concrete aggregates and gravel products in Victoria.

CORPORATE

Cash

At 30 September 2019, total cash held by the group was \$613,000. An R&D cash rebate of approximately \$728,000 was received during October 2019.

2019 Share Purchase Plan

Nagambie Resources has invited eligible shareholders registered as at 7.00pm (AEDT) on Tuesday 15 October 2019 to participate in the Nagambie Resources Limited 2019 Share Purchase Plan (“SPP”).

The SPP enables eligible shareholders to purchase between \$1,000 and \$30,000 worth of shares at a price of 5.3 cents per share without being required to pay brokerage fees or incurring additional transaction costs. This price represents a 14.9% discount to the volume weighted average price for the shares on the ASX over the five days previous to 16 October 2019 in which they traded of 6.23 cents.

The funds raised will enable Nagambie Resources to:

- 1) drill follow up Wandean holes, after diamond hole WTD002 is completed, into the highly prospective underground sulphide-gold target at the intersection of the Wandean Crustal Fault and the Wandean Thrust Fault;
- 2) carry out Induced Polarisation (IP) geophysical surveys to the south east of Wandean where the Wandean Crustal Fault intersects the Grimwade, Racecourse and Nagambie Mine Thrust Faults; and
- 3) add to general working capital.

All the directors of Nagambie Resources intend to take up their maximum entitlement of \$30,000 each for new shares under the SPP.

The timetable for the offer of shares under the SPP is as follows:

Record Date to determine entitlements	7.00pm (AEDT) Tuesday 15 October 2019
ASX Announcement of SPP	Wednesday 16 October 2019
Despatch of documents and SPP Opening Date	Thursday 17 October 2019
Closing Date for application for shares	5.00pm Wednesday 13 November 2019 *
Allotment Date for SPP shares	Wednesday 20 November 2019 *
Quotation Commences	Friday 22 November 2019 *

**These dates are indicative only and may be changed at the discretion of Nagambie Resources*

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.