

JUNE 2015 QUARTERLY REPORT

# **HIGHLIGHTS**

- As announced in May 2015, the shallow trenching program at the Apollo-Gladys area in the Clonbinane Goldfield gave a highest individual result for the 1.0 metre samples of 20.8 g/t gold. The best continuous interval trench result, across the strike of the mineralisation, was 28 metres at 2.3 g/t gold.
- The Company has submitted a work plan to excavate three costeans at Apollo-Gladys, 1.5 metres deep and totalling approximately 380 metres in length, to better define the surface gold mineralisation ahead of a mining licence application.
- A section of the existing heap leach pad at the Nagambie Mine has been selected to treat Clonbinane gold ore. This new heap leach section would also be used to treat Wandean gold ore and possibly gold ore from Doctors Gully (Rushworth) and Redcastle.
- A separate section of the existing heap leach pad has been selected to be the first residual hard inert landfill site at the Nagambie Mine.
- The Victorian Government committed \$1.5 billion during the quarter to the Melbourne Metro Rail Project. Construction of two nine-kilometre rail tunnels will commence in 2018 and millions of tonnes of sulphidic spoil (PASS) will be excavated and stored. Nagambie Mining can accept up to 6.2 million tonnes of PASS under water, the best environmental solution for PASS storage, in the two 1990's open pits at the mine.
- Shorter term, construction of numerous high rise buildings, up to 53 stories, at Fishermans Bend, west of South Melbourne, will commence in coming months. The large excavations required for solid foundations and underground car parking levels will result in large quantities of PASS requiring storage. Nagambie Mining intends to approach all the large construction companies that could become involved, such as Multiplex, Grocon and ProBuild.
- The Company is considering leasing a section of its freehold land at the Nagambie Mine to a recycler of construction & demolition waste. The residual waste from such an operation could then be disposed of at Nagambie Mining's landfill operation.

# **COMMENTARY**

The Nagambie Mining Chairman, Mike Trumbull said: "The excellent Clonbinane trenching results, which tie in with the historical underground workings, illustrate an apparent folding of the gold mineralisation. Such folding will help to reduce the waste:ore strip ratio in the optimised open pit.

"The Company has continued to progress its various development plans for the Nagambie Mine, encompassing gold heap-leach treatment, underwater storage of PASS, and minimum cost storage of hard inert landfill together with a front-end recycling operation."

#### NAGAMBIE MINING

Nagambie Mining is focussed on the discovery and development of shallow, open-pit and heapleachable gold deposits.

The Company has 100% of tenements encompassing historic Victorian goldfields at Nagambie, Clonbinane, Lancemore, Rushworth and Redcastle.

A preliminary Inferred Resource of 47,000 ounces of gold, 609,000 tonnes at 2.4 g/t, was estimated in 2008 for Clonbinane.

Nagambie Mining is testing new structural and mineralisation concepts for gold mineralisation by employing geological, geophysical and geochemical techniques.

Nagambie Mining is also advancing construction material, landfill and spoil fill opportunities at the Nagambie Mine site in order to maximise the value of the freehold land owned by the Company.

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#### Board

Mike Trumbull (Chairman) Geoff Turner (Exploration Dir.) Kevin Perrin (Finance Dir.) Alfonso Grillo (Company Sec.)

# **CLONBINANE GOLDFIELD** (100% Nagambie Mining Group)

The Clonbinane Goldfield is approximately halfway between Melbourne and Nagambie, close to the Hume Freeway. A preliminary Inferred Resource (under the JORC Code (2004)) for the goldfield of 47,000 ounces of gold, 609,000 tonnes at 2.4 g/t, was estimated in 2008 by a previous owner.

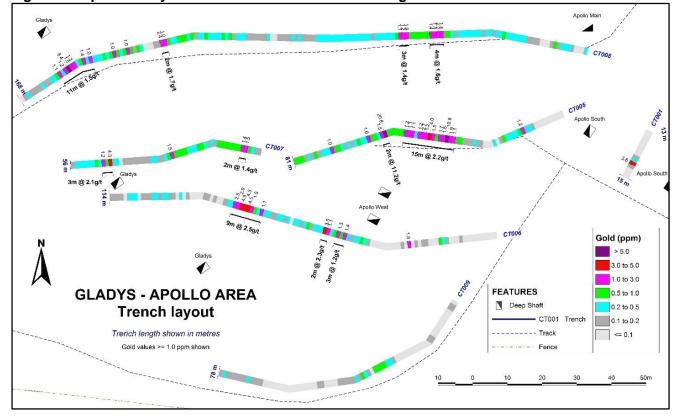
The oxide gold mineralisation at the Apollo-Gladys area, which in 2008 had an Inferred Resource of 137,000 tonnes at 2.6 g/t gold for 11,450 ounces, is the first target for excavating and trucking 60 km north to the Nagambie Mine for heap-leach gold treatment. The best drill results at Apollo, previously reported, included 21 metres at 4.8 g/t gold from 9 m downhole and 4 m at 6.6 g/t from 15 m. The best drill results at Gladys included 19 m at 2.7 g/t from 6 m, 15 m at 2.9 g/t from 7 m, and 8 m at 6.3 g/t from 9m.

Heap-leach testing on Apollo-Gladys oxide bulk samples by a previous owner has indicated 80% to 85% gold recoveries, which is very high by industry standards.

The halo gold mineralisation at Clonbinane is very unusual for Victoria – the typical nuggetty quartz vein style (Bendigo and Ballarat) has little or no mineralisation in the hangingwall or footwall. The diorite dyke intrusions adjacent to the breccia-hosted pyrite and stibnite bearing lodes at Clonbinane have resulted in the sediments (principally siltstones and sandstones) becoming more brittle and fractured, resulting in broader leakage of the mineralising fluids (quartz, sulphides and gold).

## Apollo-Gladys Trenching Results

As reported on 18 May 2015, shallow trenching at the Apollo-Gladys area confirmed widespread halo mineralisation. Significant gold results are shown in Figure 1.





The highest individual gold result was 20.8 g/t from 53 to 54 metres along the trench in CT005 at Apollo West. The best continuous interval trench result was 28 metres at 2.3 g/t gold from 31 to 59 metres in CT005.

Figure 2 is a composited plan showing all the surface trenching gold results together with all the gold intersections, projected to surface, for the various RC and diamond holes drilled at Apollo-Gladys. The

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results, which tie in with the historical underground workings, illustrate an apparent folding of the gold mineralisation. Such folding will help to reduce the waste:ore strip ratio in the optimised open pit.

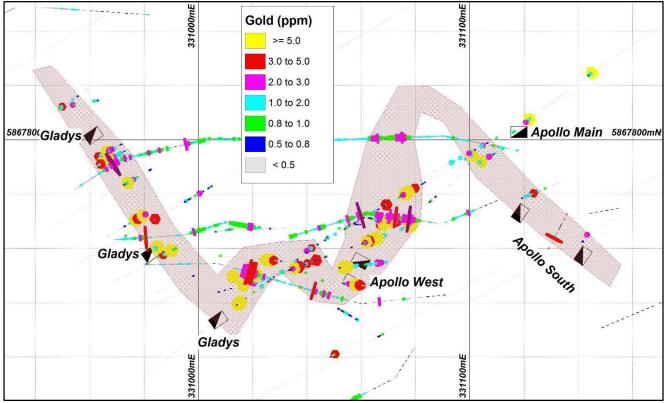


Figure 2 Apparent Fold in Gold Mineralisation at Apollo-Gladys

All trenches have been excavated with a mini-excavator, indicating that future mining operations could be by excavator only with no requirement for drilling and blasting.

The presence of continuous gold mineralisation over wide intervals with relatively few gold "spikes" points to the gold being very fine grained and evenly disseminated throughout the mineralised zones. The gold distribution fits with the very high indicated heap-leach gold recovery of 80% to 85%.

To better define the surface gold mineralisation ahead of submitting an application for a mining licence, the Company has submitted a work plan to excavate three costeans, 1.5 metres deep and totalling approximately 380 metres in length.

The area has also recently been surveyed by the Company. The digital surface topography and the assays and geological logging to be obtained from the three additional costeans will be the final inputs to the 3-D model being prepared for the Apollo-Gladys area. An updated resource will then be calculated and an optimum open pit designed using Micromine software.

A section of the existing heap leach pad at the Nagambie Mine has been selected to treat Clonbinane gold ore. This new heap leach section would also be used to treat Wandean gold ore and possibly gold ore from Doctors Gully (Rushworth) and Redcastle.

WANDEAN GOLD DEPOSIT (100% Nagambie Mining Group)

The Wandean deposit lies 9 km north west of the Nagambie Mine and 4 km north of the Nagambie township (refer Appendix 1). The Company's intention is to excavate the oxide cap of the gold mineralisation at Wandean and truck the ore to the Nagambie Mine for heap-leach treatment.

With the emphasis being on advancing Clonbinane, no ground work was carried out at Wandean during the quarter.

## TENEMENT CHANGES

The Nagambie Mining group's current tenements are shown in Appendix 1 (plan and table). Clonbinane Retention Licence RL 6040 was applied for during the quarter. Nagambie Exploration Licence EL 5327 was reduced in area during the quarter from 48 km<sup>2</sup> to 26 km<sup>2</sup>.

## **CONSTRUCTION SPOIL STORAGE AT THE NAGAMBIE MINE** (100% Nagambie Mining Group)

## Existing Storage Sites at the Nagambie Mine

The two historic open pits at the Mine represent ideal under-water sites for sulphidic construction spoil (commonly referred to as potential acid sulphate soil or PASS) and could accommodate around 6.2 million tonnes of spoil. The East Pit has a maximum water depth of 50 metres and the West Pit has a maximum water depth of 40 metres.

The Company has investigated whether there are any alternative large under-water sites that could accept large volumes of Melbourne PASS and concluded that none exist. Melbourne PASS can be stored above ground in metropolitan landfill sites but that alternative is a poor environmental outcome for Victoria and a very expensive solution.

## Significant Melbourne PASS-Generating Projects

The Victorian Government has committed to the Melbourne Metro Rail Project which involves the construction of two nine-kilometre rail tunnels from South Kensington to South Yarra, travelling underneath Swanston Street in the Melbourne CBD. Geotechnical drilling for the route is being carried out and is expected to indicate that millions of tonnes of PASS will need to be excavated and stored, commencing in 2018.

Commencing earlier will be the construction of numerous high rise buildings at Fishermans Bend, west of South Melbourne, within a large high-density development area (15-stories plus). Fishermans Bend is being planned to double the size of the inner Melbourne area. Approved and planned to date are many 40-story and up to 53-story buildings. Typically up to five metres of surface sand overlies soft Coode Island Silt (PASS material) in the area. As a result, the large excavations required for solid foundations and underground car parking levels will result in significant quantities of PASS requiring storage.

Nagambie Mining intends to approach all the large construction companies that become involved in highrise developments at Fishermans Bend and elsewhere in the CBD where PASS needs to be excavated. They could include companies such as Multiplex, Grocon and ProBuild.

## **RESIDUAL HARD INERT LANDFILL AT THE NAGAMBIE MINE** (100% Nagambie Mining Group)

#### Landfill Background

The Company is seeking to obtain a landfill licence at the Nagambie Mine from EPA Victoria. However, before the EPA can consider a site at the Nagambie Mine, the site needs to be included in a landfill schedule by the authority responsible for the region, the Goulburn Valley Waste and Resource Recovery Group (GVWRRG).

In the December 2013 quarter, Nagambie Mining made a written submission to the Victorian Department of Sustainability (Sustainability) in response to that Department's call for submissions regarding the Draft Statewide Waste and Resource Recovery Infrastructure Plan 2013-2014 (SWRRIP) for Victoria.

In the June 2015 quarter, Sustainability released an updated draft, SWRRIP 2015-2044, that took account of all the submissions made 18 months earlier.

The updated SWRRIP focusses on the relevance that existing and future waste hubs of State importance, preferably located on major transport routes, will play in optimising regional and cross-regional waste flows in Victoria. The six regional WRRGs and the metropolitan WRRG will now clarify the important existing and future waste hubs in their individual areas. Sustainability will play an overarching role in ensuring that the

Statewide result is optimised, particularly in regards to cross-regional waste flows.

With the release of the updated SWRRIP, the GVWRRG is now working on a regional plan (RWRRIP) for the Goulburn Valley which will incorporate a new landfill schedule. The GVWRRG, which recently inspected the Nagambie Mine, will shortly be asking for expressions of interest to provide landfill airspace in the Goulburn Valley.

## Landfill Need

One of Victoria's most pressing waste management issues is the impending shortfall in landfill capacity to accept inert hard waste remaining after recycling operations ("residuals") in the Melbourne East area.

The proposed landfill site at the Nagambie Mine is being designed to take only residuals from waste recycling operations in central Victoria and Melbourne. The landfill would be sourced principally from construction & demolition activities or commercial & industrial operations.

#### Landfill Suitability

In the June 2014 quarter, Nagambie Mining engaged the services of GHD, a leading landfill consultant, to prepare a report, Supporting Planning and Environmental Information for a proposed Solid Inert Landfill at Nagambie. GHD considered that:

- Landfilling would be compatible with the degraded Nagambie Mine;
- The area could take over 15 million tonnes of compacted landfill;
- The sites would satisfy required buffer distances;
- The local groundwater was not potable quality (a problem with near-Melbourne sites);
- The sites were 10-15m above groundwater (2m minimum required by the EPA);
- 10-15m thick surface clays would be suitable for engineered clay liners;
- The sites would not be visible from the main road due to existing highwalls;
- Being located near a major freeway trucking route from Melbourne was a major advantage; and
- Residual waste could be sourced from north and east Melbourne, the Goulburn Valley and Bendigo.

#### Utilizing the Existing Heap Leach Pad

A section of the existing heap leach pad has been selected to be the first landfill site at the Nagambie Mine.

The existing heap leach pad is approximately 500 metres east-west and 400 metres north-south or 20 hectares (roughly 50 acres) in area. The whole heap leach pad is underlain by HDPE black plastic and the pad has been constructed such that all rainfall runoff from a hard inert landfill section would flow to the existing plastic-lined pregnant pond.

When the landfill section and a new heap-leach section are both operating, all rainfall runoff and heap-leach pregnant solution would report to the pregnant pond, from where it would be pumped through activated carbon columns. The gold in solution would adsorb onto the activated carbon (such as burnt coconut shell). The resulting barren solution would then be pumped into the existing plastic-lined barren pond, from where the solution would be pumped back over the new heap-leach section.

If only the landfill section was operating at a point in time, the rainfall runoff would be pumped from the pregnant pond back over the 500m by 400m pad or allowed to flow sequentially over time into the existing barren pond, then to the large existing plastic-lined storm pond, and finally (if not already fully evaporated) into the large existing overflow pond.

#### Possible Front-End Recycling

The Company is considering leasing a section of its freehold land at the Nagambie Mine to a recycler of construction & demolition waste. The residual waste from such an operation could then be disposed of at Nagambie Mining's landfill operation.

# CORPORATE

At 30 June 2015, total cash held by the Company was \$792,000.

On 1 May 2015, the Company undertook a placement of 4,300,000 new fully paid ordinary shares to sophisticated or professional investors at an issue price of 3.5 cents per share. The funds raised of \$150,500 added to working capital to advance the Company's various developments.

On 29 July 2015, the Company announced that it was placing another \$420,000 of 15 April 2020 Nagambie Mining Series 4 Convertible Notes at 5.0 cents per note.

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# STATEMENT AS TO COMPETENCY

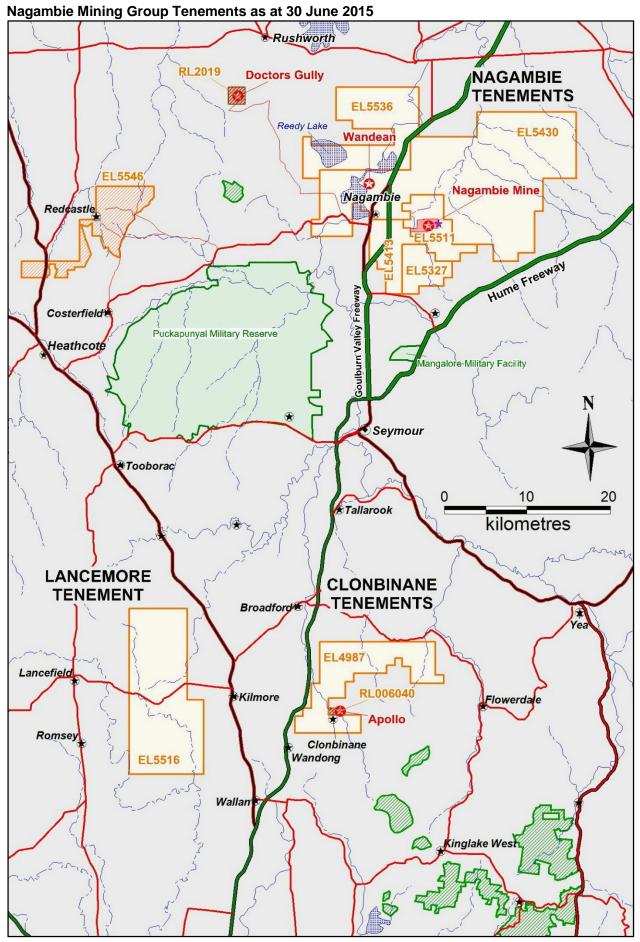
The Exploration Results in this report have been compiled by Mr Geoff Turner, who is a Fellow of the Australian Institute of Geoscientists, has more than ten years in the estimation, assessment, and evaluation of mineral resources and ore reserves, and has more than 20 years in exploration for the relevant 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 Mining 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", "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 Mining assumes no obligation to update such information.

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# **APPENDIX 1**



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Tenement	Tenement Name	Area*	Holder**
Number			
MIN 5412	Nagambie Mining Licence	364.1 Hectares	NAG
EL 5430	Bunganail Exploration Licence	312 Graticules	NAG
EL 5511	Nagambie Exploration Licence	36 Graticules	NAG
EL 5536	Wandean North Exploration Licence	85 Graticules	NAG
EL 5413	Nagambie West Exploration Licence	33 Graticules	NAG
EL 5327	Nagambie South Exploration Licence	26 Graticules	NAG
EL 4987	Clonbinane North Exploration Licence	99 Graticules	CLO
RLA 6040	Clonbinane Retention Licence Application	300 Hectares	CLO
EL 5516	Lancemore Exploration Licence	158 Graticules	NAG
EL 5546	Redcastle Exploration Licence	69 Graticules	NAG
RLA 2019	Rushworth Retention Licence Application	400 Hectares	NAG
RLA 2019		400 Hectares	

# **APPENDIX 1** (Continued)

# Nagambie Mining Group Tenements as at 30 June 2015

\* Graticules are mostly 1.0 square km or 100 hectares but can be less

\*\* NAG = 100% Nagambie Mining Limited

\*\* CLO = 100% Clonbinane Goldfield Pty Ltd

# APPENDIX 2

# **EXPLORATION & DEVELOPMENT OF GOLD ASSETS**

## The Nagambie Mining group's key gold strategies in Victoria are:

- Focus on Central Victoria, particularly the Melbourne Zone;
- Focus on open-pit gold deposits underground mining costs are fast becoming prohibitive in Victoria;
- Focus on disseminated, non-nuggetty, oxide, heap-leachable gold;
- Take advantage of the lower capital and operating costs associated with heap leaching;
- Take advantage of the heap-leach facilities remaining from the 1990s operation at the Nagambie Mine truck all ore from the Company's deposits back to the Nagambie Mine for treatment;
- Only take on 100% ownership of gold properties joint ventures are inefficient and expensive;
- Don't take on production royalties royalties become problematic with multiple sources of heapleach ore;
- Don't take on bank project finance banks insist on acting in the interest of their shareholders ahead of the interests of their clients;
- Develop Resources (under the JORC Code) but not Reserves the money spent on drilling out reserves is better used on dividends to shareholders;
- Focus strongly on mine bench grade control to minimise waste dilution and maximise ore head grade; and
- Use local contractors wherever possible to minimise up-front capital costs and provide operational flexibility – except for mine bench grade control and gold room operations.

# Nagambie Mining's preference for exploring and developing gold assets in the Melbourne Zone of Victoria:

- Melbourne Zone is Noted for Disseminated, Non-Nuggetty Gold:
  - ♦ Extremely fine gold couldn't be panned by the "Old Timers" outcrop still exists;
  - ♦ Gold in samples is evenly distributed the opposite of nuggetty;

- Reliable drilling results for disseminated gold versus problematic drilling of Bendigo and Ballarat-style nuggetty quartz veins;
- ♦ Reliable evaluation of each open-pit, heap-leachable deposit;
- ♦ Reliable bench grade control sampling during open-pit mining;
- Minimal quartz in disseminated oxide deposits can mean no drilling and blasting is required; and
- ♦ Fine, evenly-distributed gold means excellent heap-leach recovery.
- Melbourne Zone has Outstanding Existing Infrastructure:
  - Hume and Goulburn Valley Freeways connect the Nagambie and Clonbinane Goldfields;
  - ♦ Operators for the mining and heap-leach operations could come from Shepparton, Nagambie, Seymour, Broadford, Kilmore, Wallan, Wandong etc.; and
  - ♦ Operators would drive themselves to the gates of the operations each day the exact opposite, in terms of costs, of fly-in, fly-out operations in outback Australia.