

# JUNE 2016 QUARTERLY REPORT

# **HIGHLIGHTS**

- The Company's Environmental Management Plan (EMP) for the receival and management of sulphidic excavation material (Potential Acid Sulfate Soils or PASS) at the Nagambie Mine was approved in June by the Environment Protection Authority of Victoria (EPA).
- Full permitting of the PASS Project is now expected in coming months. Nagambie Resources is submitting a Work Plan Variation to Earth Resources Regulation to enhance the rehabilitation of the legacy pits from the 1990s gold mining operation. It is proposed that PASS from large excavation sites in Melbourne will be used to backfill the open pits below the water level, leaving the PASS in an anaerobic state (not exposed to air). Clay from the mine site will then be put on top and compacted to further ensure an anaerobic state for the PASS.
- The EMP satisfies all the environmental aspects considered by the EPA, including water, air/dust, land, odour and noise impacts. The Company will be adhering to strict EPA operating, monitoring and reporting requirements for the initial two-year period.
- On 1 July, James Earle was appointed Chief Executive Officer (CEO) for the Group. James has a degree in Geological Engineering, a Master of Environmental Management and a Master of Business Administration. He worked for GHD from 2003 to 2010. More recently James was manager of the Victorian practice of Ramboll Environ, another global engineering and environmental consultancy.
- Since the Wandean virgin gold discovery in July 2014, Nagambie Resources has picked up rights to 192 sq.km of prospective gold tenements to the north and north west of Wandean.
- Early in July, the Company placed 4,666,666 new shares at 15.0 cents per share to sophisticated and professional investors, raising \$700,000. The placement funds are being applied to:
  - gold exploration and development;
  - the construction of a state-of-the-art weighbridge; and
  - general working capital requirements.

### **COMMENTARY**

Nagambie Resources' Chairman, Mike Trumbull said: "Obtaining EPA approval for the PASS Management Project was a significant milestone. Being able to attract a very well credentialed CEO on the back of that approval was another vital step for the Company's long term future.

"With the price of gold rising around A\$300 per ounce since December 2015 to around A\$1,750 per ounce currently, we are planning to advance work on Wandean and Clonbinane and carry out a detailed aeromagnetic survey over our 551 sq.km of exploration ground in the Nagambie area. We expect the aeromagnetic results to define at least several previously unknown east-west thrusts, similar to the Nagambie Thrust which hosts the Nagambie Mine and the Wandean Thrust which hosts the virgin Wandean gold discovery. We are also very encouraged by the spectacular drilling results being achieved at the Fosterville Mine by Newmarket Gold."

#### NAGAMBIE RESOURCES

Underwater storage of sulphidic excavation material (PASS) in the two legacy pits at the Nagambie Mine represents an excellent environmental fit with the construction of Fishermans Bend / CBD high-rise buildings, the Melbourne Metro rail tunnels and the Western Distributor road tunnels.

The discovery and development of shallow, open-pit and heap-leachable gold deposits is being methodically advanced. The Company has 100% of tenements encompassing historic Victorian goldfields at Nagambie, Clonbinane, Rushworth and Redcastle.

> Aggregates and gravel are being produced from the old heap leach pad and overburden dumps respectively.

The first landfill site is planned to take advantage of the 20 Ha of black plastic under the legacy heap leach pad.

> Leasing and agistment of the freehold land at the Nagambie Mine is being maximised.

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#### Board

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

James Earle CEO

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# PASS PROJECT (100% Nagambie Resources Group)

The Company is proposing to rehabilitate the East and West Pits at the Nagambie Mine (refer Photo 1) back to their original use as farming land. PASS material from large construction excavation sites in Melbourne will be used to backfill the open pits below the water level. Below water, the PASS material will be in an anaerobic state (not exposed to air). Clay from the Nagambie Mine site will then be placed on top of the PASS material, up to the water level and then above the water level. The clay will be compacted as it is added and so permanently cap the PASS material in an anaerobic state. At the final surface level, topsoil will be spread and seeded with local area grasses, shrubs and trees.

#### Photo 1 Aerial View of the Nagambie Mine Site



Looking north east. Water-filled West Pit in foreground, East Pit in background

PASS stands for Potential Acid Sulphate Soil (or silt or rock). PASS occurs naturally in an anaerobic state below the water table. It is soil, silt or rock containing sulphidic material such as pyrite (iron sulphide). It is classed as clean fill (EPA publication 655.1) and free of any anthropogenic ('human made') contamination. PASS is not contaminated soil. PASS is not toxic. PASS only becomes a problem when it is excavated from below the water table and exposed to the air (that is, removed from its anaerobic state) for a significant period of time. Major proposed Melbourne infrastructure projects that will involve the excavation of PASS include the Fishermans Bend / CBD high-rise developments, the Western Distributor road tunnels and the Melbourne Metro rail tunnels. Both the Western Distributor and Melbourne Metro projects have now been given the go ahead by the Victorian Government, with tunnelling due to commence around mid CY 2018.

Underwater storage is the best environmental solution for Melbourne PASS as it prevents the oxidation of the pyrite (iron sulphide) in the material. The water in the Nagambie Mine open pits is naturally strongly saline and alkaline, making it ideal tor PASS management.

Nagambie Resources' Environmental Management Plan (EMP) for the receival and management of PASS at the Nagambie Mine was approved in June by the Environment Protection Authority of Victoria (EPA).

Full permitting of the PASS Project is now expected in coming months. Nagambie Resources is submitting a Work Plan Variation to Earth Resources Regulation (North East Victoria), within the Department of

Economic Development, Jobs, Transport and Resources.

The EMP satisfies all the environmental aspects considered by the EPA, including water, air/dust, land, odour and noise impacts. The Company will be adhering to strict EPA operating, monitoring and reporting requirements for the initial two-year period. The requirements include keeping detailed records of all PASS material received onsite and undertaking frequent and ongoing sampling and testing of the water in the pits and all received PASS material. All the information collected will be reported both quarterly and annually to the EPA.

## Weighbridge

For reconciliation purposes, every truck load of PASS will be identified with a job number and a load number for that job. PASS truck drivers will sign in to a driver-controlled computer station at Nagambie Resources' private weighbridge and receive a computer-printed entry ticket giving the truck registration number, the PASS job number and the associated load number. All PASS trucks will then be driven onto the weighbridge and their gross (loaded) weight will be automatically recorded.

PASS truck drivers will then follow road signage to the PASS truck tipping area open at the time and will only be allowed to tip the PASS material on the ground at the truck tipping area after handing over their entry ticket. Every truck load of PASS will be videoed as tipping proceeds using mobile (trailer-mounted), solar-powered CCTV cameras and all video footage will be kept on site for at least 12 months.

After tipping out the PASS, truck drivers will then return to and drive onto the weighbridge where they will again sign in to the driver-controlled computer station and collect a computer-printed exit docket. The docket will set out the truck registration number, the PASS job number, the associated load number, the tare (empty) weight, the gross (loaded) weight and the net load (tonnes of PASS) for record purposes.



Measuring up the location for the Weighbridge

The final design incorporates:

- 32m x 3.5m above-ground, two-way, multi-deck weighbridge suitable for up to A-double trucks;
- Power provided by solar panels and lead crystal batteries (grid power too unreliable);
- Driver controlled computer station with a touchscreen and printer, complete with customised software to capture weight data, weighing transactions, store images and direct traffic flow via the traffic lights and sensors; and
- Two outdoor cameras to capture images of the trucks during weigh in and weigh out.

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### NAGAMBIE REGIONAL AEROMAGNETIC SURVEY (100% Nagambie Resources Group)

In an ASX announcement dated 5 July 2012, the Company said: "Since the 1980s, companies including Metana, Perseverance, Metex, Barrick and Newcrest have individually explored different gold prospects in the region. The great advantage for Nagambie Mining is that we have been able to pull all that valuable open-file information together, add it to our own growing soil sampling and drill hole database, and significantly improve our regional gold model. We feel that we have 'cracked the code'. It's exciting for the Company, being a real minnow in market capitalisation terms, to have 100% ownership of such a complete package of land containing many compelling targets. We are very confident of being able to systematically hunt down Nagambie-style gold orebodies that are amenable to low cost open pit mining and heap-leach recovery".

On 17 July 2014, the Company announced the discovery of the virgin gold deposit at Wandean. Within continuous mineralised zones, better drill intersections of finely-disseminated gold in sediments included: 10m downhole at 1.71 g/t gold; 21m at 0.94 g/t; 16m at 1.38 g/t; 10m at 1.5 g/t; 7m at 1.93 g/t; 6m at 1.31 g/t; 5m at 1.27 g/t; 4m at 1.48 g/t; and 2m at 11.04 g/t. The highest grade intersection at Wandean to date is 1m at 37.8 g/t (36.4 g/t repeat), more than double the best oxide gold assay ever recorded at the Nagambie Mine in the 1990s of 16.3 g/t gold.

Since the discovery of Wandean, Nagambie Resources has patiently picked up additional exploration tenements to the north and north west of Wandean.

The Company now has rights over a total of 551 sq.km of highly prospective gold ground in the Nagambie region. This holding represents real 'gravitas' in the exploration sense and could easily be joint ventured to an Australian or international gold major. Nagambie Resources however considers joint venturing this asset, or any of its other assets, would not be in the best interest of its shareholders.

Concurrently with developing Wandean, it is now timely for Nagambie Resources to look for more virgin gold deposits like Wandean. A detailed aeromagnetic survey over the 551 sq.km total area has been planned and is due to be flown in approximately one months' time. The survey, flown on close-spaced, north-south lines, is expected to define a series of east-west thrusts. A previous Government aeromagnetic survey was flown on wide-spaced, east-west lines but still managed to indicate some east-west thrusting.

Nagambie Resources will systematically use its proprietary soil sampling protocols to test both north and south of each east-west thrust that is defined by the detailed aeromagnetic survey. AirCore drilling, followed by RC drilling if justified, would then be employed to test all the resultant soil anomalies. Additionally, the Company has established that the ground electrical geophysics method of Induced Polarisation (IP) can highlight areas of sulphide mineralisation, below the oxidised zone, in the Nagambie district. The combination of aeromagnetic surveying, proprietary soil sampling, lines of IP if needed and, finally, drilling means that Nagambie Resources can maximise its chances of success for every dollar it spends on gold exploration in the Nagambie area.

#### Spectacular Drilling Results at the Fosterville Mine

Perseverance Corporation mined and heap-leach treated the finely-disseminated, low-grade, surface oxide gold-in-sediments deposit at the Nagambie Mine in the 1990s. Perseverance subsequently mined and heap-leach treated the finely-disseminated, low-grade, surface oxide gold-in-sediments deposit at the Fosterville Mine, east of Bendigo.

The Fosterville Mine is now owned by Newmarket Gold, a Canadian company that is not listed on the ASX. Sulphide ore is currently being mined in underground stopes in the Phoenix Zone, around 900m beneath the surface, and treated in a surface Biox gold recovery circuit.

A June 2016 presentation by Newmarket Gold, released on the Toronto Stock Exchange, included recent drilling intersections for the Lower Phoenix Zone. Better drill intersections included: 3.5m downhole at 645 g/t gold; 4.5m at 501 g/t; 3.4m at 385 g/t; 11.9m at 112 g/t; 4.9m at 161 g/t; and 7.8m at 73.2 g/t. The intersections are unheard of for a Victorian disseminated gold-in-sediments deposit. In fact, the high-grade disseminated gold at the Fosterville Mine is now occurring at depth as very visible gold.

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Newmarket Gold have shown the potential future for disseminated gold-in-sediments deposits in Victoria, which is the same deposit style that Nagambie Resources is seeking. After Newmarket Gold, Nagambie Resources may well have the next best landholding for this style of deposit in Victoria.

**CLONBINANE GOLDFIELD** (100% Nagambie Resources Group)

The Clonbinane Goldfield is approximately halfway between Melbourne and Nagambie, close to the Hume Freeway (refer Appendix 1). With the focus being on the PASS Project, no drilling or costeaning was carried out at Clonbinane during the quarter.

WANDEAN GOLD DEPOSIT (100% Nagambie Resources Group)

The Wandean deposit lies 9 km north west of the Nagambie Mine and 4 km north of the Nagambie township (refer Appendix 1). With the focus being on the PASS Project, no drilling or costeaning was carried out at Wandean during the quarter.

### **GOLD TENEMENT CHANGES**

Nagambie Resources group tenements as at 30 June 2016 are shown in Appendix 1 (plan and table). EL 5413, Nagambie West, was reduced in size during the quarter.

## GOLD PRICE IN \$US/OZ AND A\$/OZ OVER 12 MONTHS



# AGGREGATE SALES ROYALTY

The Company receives royalties on sales of gravel and aggregate that are produced by a contractor from the historic overburden dumps and heap leach pad respectively as part of mine rehabilitation.

After extensive testing and trials, the contractor was able to produce excellent screened aggregate products from the heap leach material. However, the operation has to date been non-commercial.

Nagambie Resources notified the contractor in June 2016 that the agency agreement would expire at the end of the agreement's three-year term on 24 December 2016.

# **HEAP LEACH MATERIAL**

The heap leach material consistently gives excellent compaction results and is ideal as a compacted footing material. Such footing material will be required in the base of the tunnels for both the Melbourne Metro Rail Project and the Western Distributor Road Project, both projects commencing in 2018. Some of the trucks bringing PASS material from the tunnel portals could return to the same tunnel portals loaded with heap leach material.

# CORPORATE

At 30 June 2016, total cash held by the Company was \$931,000.

During the quarter, a total of 2,366,667 Nagambie Resources convertible notes with a total face value of \$77,228 were converted into shares. In addition, 3,600,000 employee and director options were exercised during the quarter at 10.0 cents each, raising \$360,000.

On 4 July 2016, 2,000,000 options with a vesting date of 4 July 2016, an expiry date of 4 July 2021, and an exercise price of 25.5 cents each were issued to the new CEO.

On 12 July 2016, \$700,000 was raised from the issue of 4,666,666 ordinary shares at 15.0 cents each to sophisticated and professional investors.

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# 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 Resources 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.

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# **APPENDIX 1**



Nagambie Resources Group Tenements as at 30 June 2016

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# APPENDIX 1 (Continued)

Tenement Number	Tenement Name	sq.km
MIN 5412	Nagambie Mining Licence	3.64
EL 5430	Bunganail Exploration Licence	313.02
EL 5511	Nagambie Exploration Licence	36.89
EL 5536	Wandean North Exploration Licence	95.00
EL 5413	Nagambie West Exploration Licence	9.11
EL 6212	Reedy Lake North Exploration Licence	41.00
ELA 6158	Rushworth Exploration Licence Application	56.03
		551.05
EL 4987	Clonbinane North Exploration Licence	1.46
EL 4460	<b>Clonbinane South Exploration Licence Application</b>	1.54
ELA 6163	<b>Clonbinane South Exploration Licence Application</b>	78.21
RLA 6040	<b>Clonbinane Retention Licence Application</b>	3.00
EL 5516	Lancemore Exploration Licence	158.00
ELA 5546	Redcastle Exploration Licence Application	53.66
RL 2019	Doctors Gully Retention Licence	4.00
		854.56

# Nagambie Resources Group Tenements as at 30 June 2016