



**Breakaway  
Research**

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### Company Information

ASX Code	TNV (AOU)
Share Price	A\$0.36
Ord Shares	23.0m
Partly paid shares	19.8m
<b>Market Cap</b>	<b>A\$8.3m</b>
Cash (Sept 12)	A\$3.3m
Total Debt	A\$0m
<b>Enterprise Value</b>	<b>A\$5.1m</b>

### Proposed Directors

Non-Executive Chairman	Glenn Whiddon
Chief Executive Officer	Dean Cunningham
Non-Executive Director	Jan Nelson
<b>Management</b>	
Chief Geologist	Gordon Koll
Exploration Manager	Francisco Matos
Mining Consultant	Jim Porter
Processing Consultant	Graeme Farr

### Top 5 Shareholders

Mimo Strategies P/L	1.6%
Matthew Norton	1.4%
JP Morgan Nom's	1.1%
Fluffy Duck P/L	1.1%
Rowan Hall	1.1%

### Company Details

Address	Level 8, 225 St Georges Terrace Perth WA 6000
Phone	+618 9486 4036
Web	www.terranovalminerals.com.au

### 1 Year Price Chart



Source: Bloomberg

# Terranova Minerals (TNV)

*Acquisition of an advanced gold project  
with significant exploration potential*

**Recommendation: Speculative BUY**

### Key Points

- **Favorable terms agreed for the 100% acquisition of the Manica Gold Project in Mozambique**
- **JORC Resource of ~50Mt @ 1.83g/t Au for ~3Moz of gold**
- **Post-acquisition EV/Resource oz of ~A\$5/oz**
- **Over 2.5 million ounces of historical gold production from nearby mines**
- **Revitalised exploration has recently commenced**
- **Substantial exploration potential within mining concession**
- **Mining right granted and valid for 25 years**

*TNV, soon to be renamed 'Auroch Minerals (ASX: AOU)', will shortly complete the acquisition of the 3Moz Manica Gold Project in Mozambique. Significant exploration potential still exists with only 8% of the prospective target area drill tested to date. A revitalised exploration program has recently commenced, primarily concentrating on a zone considered highly prospective for additional free-milling gold mineralisation to supplement the already extensive resource.*

### Company Overview

Terranova Minerals (ASX: TNV) recently agreed terms with South African based Pan African Resources plc (PAR) to acquire 100% of the Manica Gold Project, located in Mozambique.

The Manica Gold Project is an advanced gold exploration play with an established JORC resource of ~50Mt @ 1.83g/t Au for ~3Moz of gold with mineralisation reported to be open at depth and along strike. The 42km<sup>2</sup> licence area already has a granted mining licence valid for 25 years and is well serviced by existing infrastructure such as telecommunications, local airport, roads, rail, power and water. Within the licence, there are two prospective shear zones with a combined strike length of 27km. Approximately 2km (~8%) has been drill tested to date highlighting the potential to significantly increase resources with further drilling campaigns (next drill campaign set to commence Q4 2012).

With the acquisition, TNV will inherit extensive historical data including technical studies, assays from 13,595m of RC and 21,941m of diamond holes, geological mapping data and 3D modelling of identified deposits. The acquisition also comes with an African based team with past experience on the Manica Gold Project.



## Investment Review

*~3Moz @ 1.83g/t Au*

*Established  
infrastructure*

*Favourable terms for  
acquisition*

*Post-acquisition  
multiple of ~A\$3.75  
per resource ounce*

The Manica Gold Project represents an advanced exploration project with a significant JORC resource of ~3Moz of gold at an average in-situ grade of 1.83g/t. The project is located in central Mozambique, a country which has an established mining code and is supportive of new mining ventures. The Manica Gold Project is surrounded by established infrastructure including telecommunications, local airport, rail, road, power, water and a potential work force which can be sourced from the nearby town of Manica.

The acquisition of the Manica Gold Project from PAR is still subject to shareholder approval, however this appears to be a formality. Breakaway is particularly encouraged by the terms negotiated for the transaction which is based on a modest upfront payment of A\$2m in cash + 25M shares (equates to A\$7.5M at A\$0.30/share) totalling ~A\$9.5M. Following the acquisition, Breakaway estimates TNV will have an approximate enterprise value of A\$ 15.3M which implies a EV/Resource Oz ~A\$ 5. This appears cheap based on peer comparisons, highlighting the potential for a short term revaluation of the company. The remainder of the payments are tied to continued exploration success and ultimate production of the Manica Gold Project. The fact that PAR is happy to transact via equity based payments linked to exploration success, re-affirms our confidence in the exploration potential of the project.

## Exploration Upside

*Exploration is short  
term priority*

The Manica Gold Project already hosts a sizable resource, although a sizable proportion is refractory sulphide mineralisation. While this sulphide mineralisation may warrant a standalone operation in its own right, it is the exploration potential for free milling oxide ore that provides the potential for a rapid, low cost pathway to production. This is the priority for the company for at least the next 12 -24 months.

*Only 8% of  
prospective strike drill  
tested*

Within the 42km<sup>2</sup> licence area, there are two prospective 'Shear' zones, loosely called the Northern and Southern Shear which have a combined strike length of 27km. All four of the already identified deposits are located on (and controlled by) these regional structures. **Significant potential exists to identify further mineralisation along strike from these deposits as only 2km or 8% (of the 27km of potential mineralised strike) has been explored in detail.**

*Targeting additional  
free-milling  
mineralisation*

The Northern Shear, which already hosts the free-milling gold deposits at Guy Fawkes and Boa Esperanza, is considered particularly prospective for the identification of additional free-milling gold. TNV plans to focus initial exploration efforts within this Northern Shear. Identification of additional oxide material would add critical mass to the project.

## Upcoming Capital Raising and Name Change to 'Auroch Minerals'

*Upcoming capital  
raising*

Following shareholder approval to complete the Manica Gold Project acquisition, TNV will seek to raise A\$5m @ A\$0.30/share (and a maximum of A\$8m) via the issue of a prospectus, to advance an active 2013 exploration program. This will include airborne EM surveys, soil geochemical sampling, metallurgical test work and numerous drilling campaigns targeting six priority areas.

TNV will seek to change its name to '**Auroch Minerals NL (ASX:AOU)**' at the shareholder general meeting on 2<sup>nd</sup> November 2012.



## Terms of Acquisition of the Manica Gold Project

Breakaway has been impressed by the terms negotiated which comprise a modest upfront payment to PAR followed by a series of performance related payments; such as resource expansion and production hurdles:

### Initial consideration

- 25,000,000 shares + A\$2M in cash

### Followed by deferred hurdle based payments of:

#### Performance related payments

- 20,066,667 shares + A\$1m cash on delineation of additional 400koz oxide resource with a cut-off grade of 1.25g/t
- 20,066,667 shares + A\$1m cash on delineation of a further 600koz oxide resource with a cut off grade of 1.25g/t Au
- 24,366,667 shares + A\$1m cash on completion of a BFS on oxide/sulphides with a 10 life of mine with production scope of 50,000ozpa. (This is payable in cash of A\$7.3m at the election of the company)
- 7,166,667 shares + A\$1m cash on reaching nameplate capacity. (This is payable in cash of A\$2.1m at the election of the company)

Assuming all performance hurdles are met, the total acquisition cost equates to 96.6M shares + A\$6m in cash.

### Capital Structure Summary

	Current	Post-Acquisition	
		Scenario 1 (A\$5m)	Scenario 2 (A\$8m)
ASX Code	TNV	AOU	AOU
Share Price A\$	0.36	0.30	0.30
Share on issue	23,000,001	64,666,668	74,666,668
Partly paid (pp) shares	19,800,000	19,800,000	19,800,000
Total shares on pp conversion	42,800,001	84,466,668	94,466,668
Cash raised from pp shares	-	3.76	3.76
Market Cap A\$ m	8.28	25.34	28.34
Cash A\$ m	3.25	~10.0	~13.0
Enterprise Value A\$	5.03	15.30	15.30

Source: TNV and Breakaway

#### Tight capital structure following capital raising

#### 19.8M partly paid shares will likely be paid up

There are currently 19.8m partly paid shares on issue which have been paid to the value of 1c per share with 19c still outstanding (totalling 20c per share). The majority of these shares have been escrowed until September 2013. Given the TNV share price is currently A\$0.36/share, it is likely these shares will be converted to fully paid shares in the near future, injecting an additional A\$3.76m into TNV.



## Project Review

### The Manica Gold Project

**3Moz resource with significant exploration potential**

*65t of gold mined  
from surrounding  
area*

The Manica Gold Project is located in central Mozambique, approximately 4km north of the town of Manica and ~270km from the port city of Beira. The surrounding area, including Zimbabwe, is well known for hosting gold mines such as Penhalonga, Rezende, Monarch and Old West mines, which have historically produced over 2.5Moz of gold. The project is well serviced by nearby infrastructure including sealed roads, rail, water and power.

### Project Location

*Well serviced by  
infrastructure*



Source: TNV

*Mining right granted  
and valid for 25 years*

South African based PAR originally acquired the project in 2006 and since then, the company has spent \$25m on exploration programs including extensive drilling campaigns (13,595m of RC and 21,941m of diamond), geophysical programs, and technical reports (including a concept study) focusing on a select portion of the Southern Shear. This work led to the delineation of a **2.97Moz resource @ 1.83g/t Au** and the granting of a 'Mining Right' (valid for 25 years).

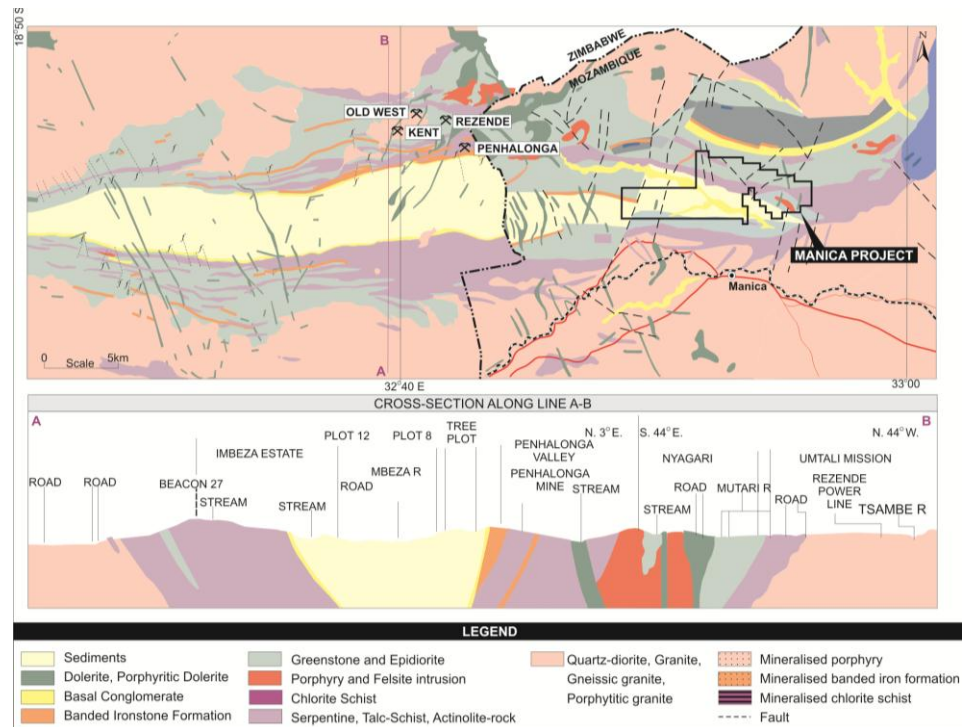
The Manica Gold Project is situated on the eastern end of the 160km long Odzi-Matare-Manica (OMM) classical Greenstone belt which extends from Zimbabwe into Mozambique and is part of a major ENE to NE trending regional structure. The greenstone belt has been altered by granitoid intrusions and associated hydrothermal processes with mineralisation generally located along a 7km east-west portion of the Northern Shear Zone.





## Regional Geology – Manica Gold Project

Four deposits identified



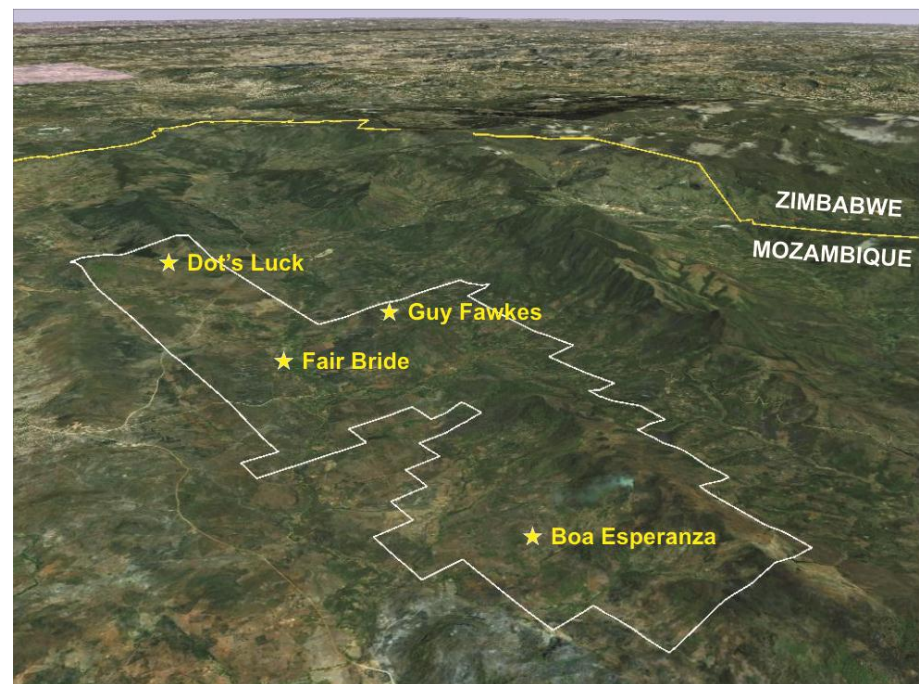
Source: TNV

Within the Manica Gold project area, there are four known deposits, namely;

- Fair Bride (2.66Moz Au)
- Dot's Luck (50Koz Au)
- Guy Fawkes (60Koz Au) and
- Boa Esperanza (30Koz Au)

## Manica Gold Project: Identified Deposits

Fair Bride is the largest deposit with 2.66Moz



Source: Venmyn Mining Consultants



Open pitable and underground resources

### Manica Gold Project: JORC Resource

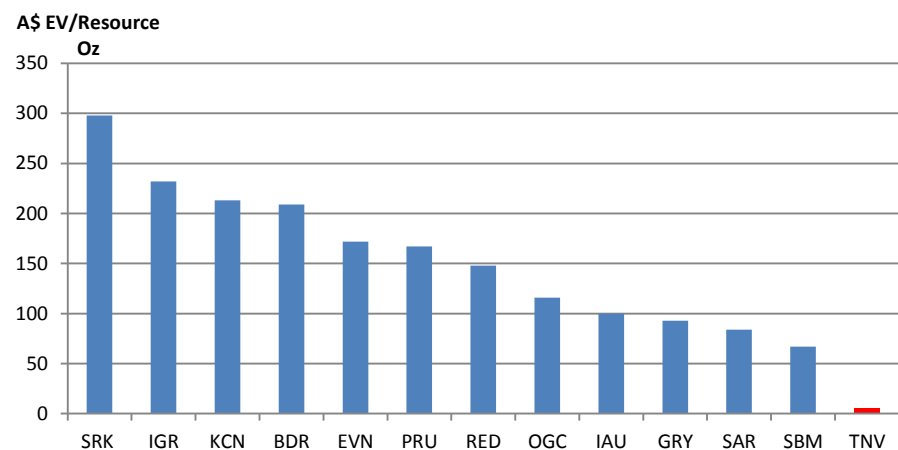
Category	Prospect	Mining Method	Cut-off grade (g/t)	Tonnage (Mt)	Grade (g/t)	Contained gold (oz)
Measured	Fair Bride	OC	0.5	11.56	1.73	642,000
Sub total				11.56	1.73	642,000
Indicated	Fair Bride	OC	0.5	7.46	1.49	359,000
		UG	1.0	3.33	1.97	211,000
	Guy Fawkes		1.25	2.15	2.44	170,000
Sub total				12.95	1.77	740,000
Inferred	Fair Bride	OC	0.5	2.71	1.34	116,000
		UG	0.5	21.89	1.89	1,333,000
	Dot's Luck		1.0	0.48	3.25	50,000
	Guy Fawkes		1.25	0.62	2.81	60,000
	Boa Esperanza		1.25	0.33	2.94	30,000
Sub total				26.03	1.89	1,589,000
Grand Total				50.53	1.83	2,971,000

Source: TNV

The chart below shows the Enterprise Value (EV) of selected Australian listed gold producers and developers with projects located in various jurisdictions. Following the upcoming capital raising, Breakaway estimates TNV will have an approximate EV of A\$15.3m. With a 2.97Moz resource, this values TNV on an EV/Resource Oz basis of A\$5/oz which appears highly attractive on a comparison basis.

### EV per Resource Oz comparison

Peer comparison of EV/Resource Oz



Source: Breakaway Research estimates

### Fair Bride

Oxide cap with primary (refractory) ore at depth

To date, Fair Bride is the largest deposit by far, accounting for 2.66Moz (~90%) of the total JORC resource which is made up from both oxide and sulphide material. Three zones of mineralisation have been identified which are structurally controlled within steeply dipping lenses. The ore body appears to consist of an oxide cap (30-60m thick in some areas) moving into transitional zone, with sulphide hosted mineralisation present thereafter.

### Fair Bride: Oxide and Sulphide material mix

Category	Tonnes (kt)	Grade Au (g/t)	Oxide (oz)	Sulphide (oz)	Total (oz)
Measured	11,561	1.73	77,000	566,000	642,000
Indicated	10,795	1.64	11,000	559,000	570,000
Inferred	24,598	1.83	2,000	1,447,000	1,449,000
Total	46,954	1.83	90,000	2,572,000	2,661,000

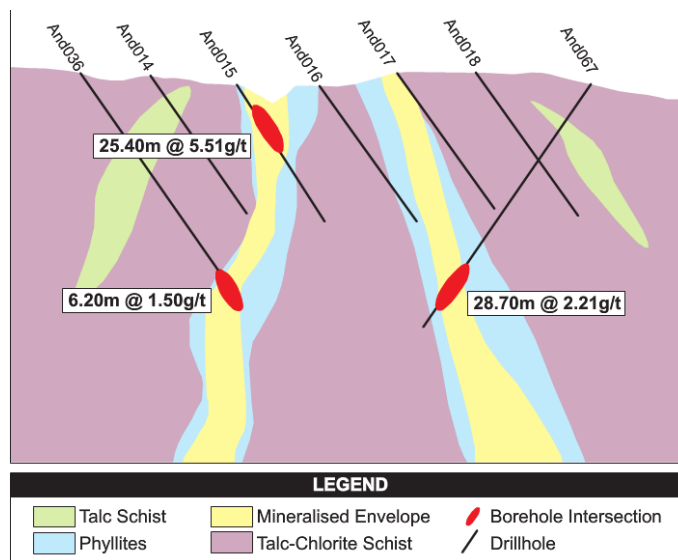
Source: TNV



*Oxide ore  
preferentially  
targeted as cheaper  
to treat*

Initial assessment has indicated ~1.1Moz as potentially suitable for open cut mining (with likely additions from Dot's Luck, Guy Fawkes and Boa Esperanza) which would include both sulphide and oxidised material. The ore from the oxidised zones could be treated conventionally via cyanidation, while sulphide hosted mineralisation (below ~30-60m cap) is refractory and will require more complex and expensive processing via a pressure oxidation, roasting or bacterial leaching circuit.

#### Typical Section through Fair Bride



*Fair Bride steeply  
dipping lenses*

Source: Venmyn Mining Consultants

#### Exploration potential

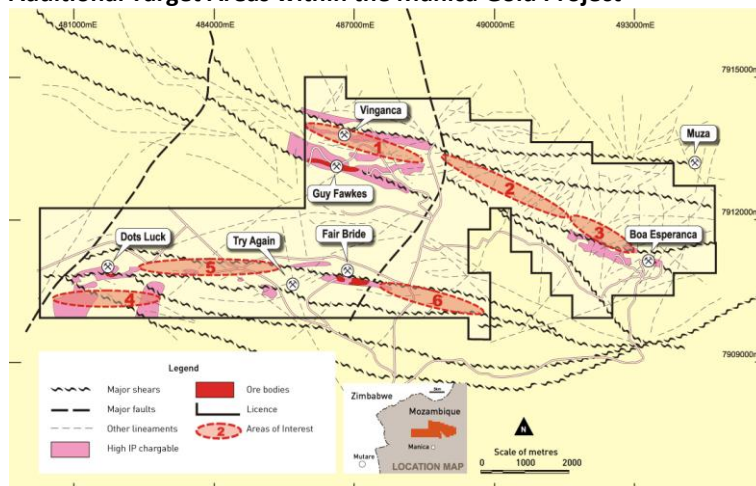
While Fair Bride and the smaller satellite deposits combine to form an already sizable resource of ~3Moz, significant exploration potential still exists within the project area.

Approximately 2km or 8%, of a potential 27km of strike, along two shear zones have been explored to date with historical exploration generally focusing on delineation of 'known' gold occurrences rather than the identification of new resources.

*Significant exploration  
potential along strike*

TNV has identified 6 'areas of interest' which will be subject to ongoing exploration over the forthcoming year, primarily targeting oxide material. These areas will focus on extensions to known areas of mineralisation within the Northern and Southern Shear zones.

#### Additional Target Areas within the Manica Gold Project



*Six priority target  
areas*

Source: TNV



*Targeting further  
free-milling/oxide  
material*

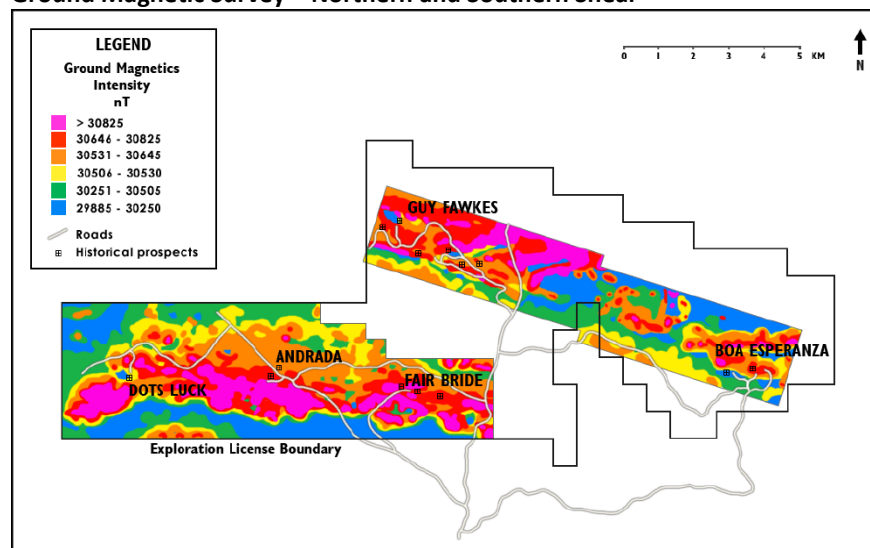
**The Northern Shear** will form the **primary target zone**. This Northern Shear passes through the already identified free-milling gold ore bodies at Guy Fawkes and Boa Esperanca. Geological mapping between these two prospects has provided evidence of numerous faults which are considered highly prospective for additional sources of mineralisation. Initial exploration will concentrate on the identification of additional resources at the Guy Fawkes prospect (with a diamond drill program ready to commence) then progressively move east, towards Boa Esperanca.

Significant historical intercepts at Guy Fawkes include:

- 4m @ 7.08 g/t Au from 69m
- 10m @ 2.27 g/t Au from 109m
- 5m @ 2.66 g/t Au from 51m
- 3m @ 6.68 g/t Au from 24m

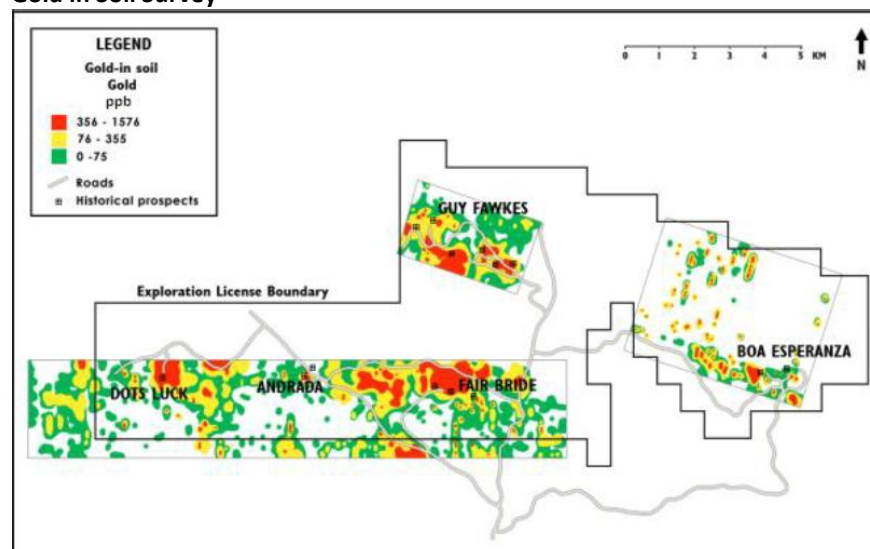
Extensive ground magnetic surveys over the total strike length of the Northern Shear Zone took place 2004. The results support the interpretation that the mineralised structure is continuous between Guy Fawkes and Boa Esperanca. The gold geochemical anomalies reaffirm confidence as they coincide with the structures mapped in the magnetic survey.

#### Ground Magnetic Survey – Northern and Southern Shear



*Magnetic survey  
supports the  
interpretation of a  
continues mineralised  
structure*

#### Gold in Soil Survey



Source: TNV





*Historical workings on  
Southern Shear  
recorded 200kg  
@7g/t Au*

*Try Again –  
particularly  
prospective*

*12 month exploration  
program*

**The Southern Shear** will form TNV's secondary exploration target zone. There are numerous old open cut workings along this structure with recorded gold production of 200kg @ 7g/t Au. This Shear passes through the Dot's Luck and Fair Bride ore bodies where free milling gold exists in a shallow oxidised cap with sulphide hosted mineralisation at depth. It is anticipated additional mineralisation within the Southern Shear will have similar characteristics.

The **Try Again** prospect is located ~1km SW of Fair Bride and hosts numerous old shallow open pit workings where historical gold production of ~100kg @ 5.3g/t Au has been recorded. The prospect is believed to be of a similar type and style to that of Fair Bride however further drilling is required to fully test the extent of the mineralisation.

At **Fair Bride** (47Mt @ 1.83g/t for 2.66Moz), additional infill drilling is also required to improve the geological confidence and upgrade the resource to 'Proven and Probable Reserves' for the purpose of progressing to a Definitive Feasibility Study (DFS). TNV is planning to complete numerous deep drill holes to test extensions of the ore body at depth as well as conducting drill campaigns to test possible lateral extensions.

The 12 month exploration program on the Northern Shear, which recently commenced, has been outlined as follows:

- Detailed infill geological mapping and soil geochemical sampling;
- Airborne electromagnetic and magnetic gradient surveys of the whole property;
- Identification and prioritisation of targets generated by the geophysical, geochemical and geological mapping and interpretation exercises;
- Drilling and/or trenching of prioritised targets;
- Revision of existing JORC code compliant resource statements;
- Metallurgical test work on oxide, transitional and sulphide ore; and
- Testing of oxide material in Target 1 on the Northern Shear



## **Directors & Management**

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*(Proposed)*  
**Non - Executive  
Chairman**  
**Glenn Whiddon**

**Glenn Whiddon** has a background in banking and corporate advisory, working for the Bank of New York in Sydney, Melbourne, Geneva and Moscow. In 1994 he established a boutique merchant bank in Moscow, providing corporate advice and undertaking direct investments. Mr Whiddon is currently Non-Executive Chairman of ZYL Limited (ASX:ZYL), Non-Executive Director of Agri Energy Limited (ASX:AAE) and is a director of Statesman Resources Limited (TSX-V:SRR).

*(Proposed)*  
**Chief Executive  
Officer**  
**Dean Cunningham**

**Dean Cunningham** is a Mining Engineer and Corporate Financier with 25 years' experience. He is currently the Executive Director, Corporate Finance for Basil Read where he is responsible for the acquisition activity, capital raisings and investor relations. He has also held the position of Chief Executive Officer at TWP Investments, a mining, processing and energy consultancy company based in South Africa, Peru and Australia. Mr Cunningham has first-hand working knowledge of the Manica Gold Project having been mandated by Pan African Resources to evaluate options for the advancement of the Project over the past two years.

*(Proposed)*  
**Non - Executive  
Director**  
**Jan Nelson**

**Jan Nelson** is currently the CEO of Pan African Resources plc (AIM: PAF) a South African based precious metals mining company producing approximately 95,000 ounces of gold and 12,000 ounces of PGM per annum. Mr Nelson holds an honours degree in geology and has over 15 years' experience. He has held positions in mine management and operations with Harmony Gold Mining Company Limited, Hunter Dickenson and Gold Fields Limited.

**Chief Geologist**  
**Gordon Koll**

**Gordon Koll** is a geologist with 30 years' experience in the mining industry. Mr Koll was previously employed as a Senior Geologist by Central African Exploration and Mining Company, where he oversaw copper/cobalt exploration and evaluation, greenfields gold exploration and the development and management of copper, cobalt and gold exploration programs in the Democratic Republic of Congo.

**Exploration Manager**  
**Francisco Matos**

**Francisco Matos** is a geologist with 16 year's industry experience. Mr Matos has extensive experience in dealing with government authorities in Mozambique, as well as stakeholders involved in the mining environment. Prior to this he was employed by Pan African Resources plc to work on the Manica Gold Project, taking the resources at the Manica Gold Project from ~400,000 ounces when he was appointed as Exploration Manager through to the current 2.9Moz.

**Consulting Engineer**  
**Jim Porter**

**Prof. Jim Porter** has over 35 years' experience in Mining. He commenced his career at AngloGold Ashanti and has worked as a Production Manager, Project Manager and Mine Manager for various mining companies. Prof. Porter joined the TWP Group as Head of Geology and Mining Engineering in 2007. He is also Adjunct Professor and Director for the Centre of Mechanised Mining Systems at Wits University, Chairman and CEO of a gold exploration company in Zimbabwe and Senior Vice President of the Southern African Institute of Mining and Metallurgy

**Consulting  
Metallurgist**  
**Graeme Farr**

**Graeme Farr** has over 37 years' experience in the mining industry primarily in process plant design and commissioning. Previously Mr Farr has worked as Senior Process Engineer at Anglo American Platinum, Senior Process Consultant at TWP Process Projects, and most recently Managing Director at Outsourced Plant Solutions (Pty) Ltd.

*\*Director CV's extracted from company announcements.*



### **Analyst Verification**

We, Grant Craighead and Andrew McLeod, as the Research Analysts, hereby certify that the views expressed in this research accurately reflect our personal views about the subject securities or issuers and no part of analyst compensation is directly or indirectly related to the inclusion of specific recommendations or views in this research.

### **Disclosure**

Breakaway Investment Group (AFSL 290093) may receive corporate advisory fees, consultancy fees and commissions on sale and purchase of the shares of Terranova Minerals and may hold direct and indirect shares in the company. It has also received a commission on the preparation of this research note.

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