



20 April 2016

Quarterly Activities Report to 31 March 2016

Tomingley Gold Operations (TGO)

- **Production summary for the quarter:**
 - Gold production 14,612 ounces (15,721 ounces recovered).
 - Site operating cash costs were A\$1,249/ounce and total operating costs (AISC) of A\$1,358/ounce.
 - The slightly higher than average costs due to extensive waste removal for the Wyoming One pit development.
 - Gold sales 15,000 ounces for revenue of A\$24.3 million at an average price of A\$1,621/ounce.
 - Gold hedge at 31 March 2016 of 27,000 ounces at average forward price of A\$1,615/ounce.
- Site net cash inflow for the quarter after site operating expenses and development expenditure was \$6.0M.
- Production for FY16 to date is 49,748 ounces, within guidance, and site net cash inflow totals \$18.6M.

Dubbo Zirconia Project (DZP or the Project)

- The Environment Protection Licence was granted by the NSW Environment Protection Authority on 14 March 2016.
- Australian Zirconia Limited (AZL), a wholly owned subsidiary of Alkane Resources Ltd, signed a Letter of Intent (LOI) with Vietnam Rare Earth JSC (VTRE) to toll process AZL's rare earths concentrate produced by the DZP into individual rare earth products.
- VTRE is a specialist Vietnamese chemical and advanced materials company which operates a processing plant to produce separated rare earth oxides from rare earth concentrates and recycled magnet materials. VTRE also produces rare earth alloys for neodymium iron boron (NdFeB) permanent magnets.
- The partnership will allow AZL to provide a supply (alternate to that from China) of separated rare earth products, guaranteeing certification and supply chain traceability from ore mined and processed in Australia through to customers' products. It will also allow AZL to participate in downstream markets and capture further value adding for its rare earth products.
- Financing and off-take negotiations continued.

Corporate

- The Group's cash position totalled A\$21.0M with A\$16.7M cash in addition to bullion on hand valued at A\$4.3M, an increase of A\$1.9M from the previous quarter.

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TOMINGLEY GOLD OPERATIONS (TGO)

Tomingley Gold Operations Pty Ltd 100%

The TGO is based on four gold deposits (Wyoming One, Wyoming Three, Caloma and Caloma Two) located about 14 kilometres north of the Company's inactive Peak Hill Gold Mine, and approximately 50 kilometres southwest of Dubbo. Underground operations below the Wyoming One and Caloma orebodies are now incorporated into the life-of-mine schedule, and a maiden reserve for the underground was released on 10 December 2015. A modification to the Project Approval for TGO has been submitted incorporating these changes to the life-of-mine schedule and subsequent mine life extension.

TGO Site layout March 2016



Operations

Mining occurred in two pits Caloma and Wyoming One. During the quarter waste stripping continued at Wyoming One, with 76% of the total waste moved in the quarter coming from that pit. The quarter also saw first ore production from Wyoming One, with 23% of the total ore. This large volume of waste to release the first ore has driven the quarterly strip ratio well in excess of the life of mine strip ratio of 9.7:1. Wyoming Three is currently being used for water storage.

The Caloma pit under-reconciled in overall gold ounces against the resource model for the quarter, moving the year to date reconciliation slightly negative. The predominant influence against the resource model in the last quarter is the presence and interpretation of the boundaries of some dolerite dykes in the resource model.



During the quarter scheduled maintenance refurbishments of the leach tanks continued with one tank remaining to be completed in April. Mining productivity remained high during the quarter with resultant mining costs within forecast. Overall total costs remain on forecast, with the reduction in produced gold ounces from Caloma underlying the increased cost per ounce.

Gold recovery for the quarter was 15,721 ounces. 14,612 ounces of gold were poured, slightly below internal forecasts, and 15,000 ounces were sold at an average sales price of A\$1,621/oz, generating revenue of A\$24.3 million and an operating cash flow of A\$6.00 million.

TGO FY 2016 Quarterly Production Figures

TGO Production		Sept Quarter 2015	Dec Quarter 2015	March Quarter 2016	FY 2016
Waste mined	BCM	1,676,850	1,447,753	1,839,737	4,964,340
Ore mined	Tonnes	433,744	277,061	198,877	909,682
Strip Ratio	Ratio	10.6	14.4	23.6	14.8
Grade	g/t	1.87	1.84	1.93	1.88
Ore milled	Tonnes	271,980	257,998	270,155	800,133
Head grade	g/t	2.44	1.93	2.02	2.13
Recovery	%	92.6	91.4	89.5	91.2
Gold poured	Ounces	19,789	15,347	14,612	49,748
Revenue Summary					
Gold sold	Ounces	21,000	14,250	15,000	50,250
Average price realised	A\$/oz	1,565	1,583	1,621	1,587
Gold revenue	A\$M	32.9	22.6	24.3	79.8
Cost Summary					
Mining	A\$/oz	784	731	774	764
Processing	A\$/oz	242	322	361	302
Site Support	A\$/oz	78	113	114	100
C1 Site Cash Cost	A\$/oz	1,104	1,166	1,249	1,166
Royalties	A\$/oz	46	43	45	45
Sustaining capital	A\$/oz	36	44	1	28
Rehabilitation	A\$/oz	16	20	22	19
Corporate	A\$/oz	32	43	41	38
AISC¹	A\$/oz	1,234	1,316	1,358	1,296
Bullion on hand	Ounces	1,951	3,040	2,645	2,645
Stockpiles					
Ore for immediate milling	Tonnes	678,681	698,744	618,218	618,218
Grade	g/t	0.95	0.94	0.80	0.80
Contained gold	Ounces	20,735	21,155	15,914	15,914

¹AISC = All in Sustaining Cost comprises all site operating costs, royalties, mine exploration, sustaining capex, mine development and an allocation of corporate costs, on the basis of ounces produced. AISC does not include share based payments or net realisable value provision for ore inventory.



The hedge book at quarter end was 27,000 ounces gold at A\$1,615/oz. FY2016 production continues to be estimated to be 60,000 – 70,000 ounces. Whilst forecast unit costs remain within the upper end of previous guidance, costs are now forecast to be within an AISC range of A\$1,250 -1,350/oz, (an increase of 4% on previous guidance), with Caloma performance and timing of high grade ore releases from Wyoming One being the key variable. Costs remain higher than the anticipated long term life-of-mine AISC of A\$1,000 – 1,100/oz due to waste stripping in FY16 at the Wyoming One pit.

DUBBO ZIRCONIA PROJECT (DZP) – zirconium, hafnium, niobium, yttrium, rare earth elements

Australian Zirconia Ltd (AZL) 100%

The DZP is located 25 kilometres south of the large regional centre of Dubbo in the Central West Region of New South Wales. It is based upon large in-ground resources of the metals **zirconium, hafnium, niobium, tantalum, yttrium and rare earth elements**. Over many years the Company has developed a flow sheet consisting of sulphuric acid leach followed by solvent extraction recovery and refining to produce several products, including trialling the process at demonstration pilot plant scale.

Following the New South Wales state governmental planning approval for the development of the DZP in May 2015, the NSW Department of Industry, Division of Resources and Energy have advised that the Mining Lease for the Project has been granted. Mining Lease 1724 covers 2,390 hectares and includes the operating site, significant biodiversity offset areas and residual agricultural land. The Environment Protection Licence (EPL) was granted on 14 March 2016 and is the final major step in the approvals process required to enable AZL to progress with construction, subject to financing.

Process and Product Development

Process development work has progressed to bankable level, with only minor work completed during the quarter. Planning has continued for demonstration pilot plant trials to produce additional products to assist with process refinement and confirmation of test results obtained at laboratory scale. This will produce hafnium concentrate and zirconium products for customer evaluations, as well as rare earth concentrate.

Rare Earth Toll Processing Agreement

As stated in the ASX announcement of 7 April 2016 AZL signed a Letter of Intent (LOI) with Vietnam Rare Earth JSC (VTRE) to toll process AZL's rare earths concentrate produced by the DZP into individual rare earth products. VTRE is a specialist Vietnamese chemical and advanced materials company which operates a processing plant to produce separated rare earth oxides from rare earth concentrates and recycled magnet materials. VTRE also produces rare earth alloys for neodymium iron boron (NdFeB) permanent magnets. The LOI states that AZL will have an exclusive right for 12 months to complete due diligence and for the parties to finalise the terms of the agreements, including the option to purchase equity in VTRE. VTRE's facilities are located near Hanoi and have full regulatory approvals for operations and environmental management. Processing operations commenced in 2012.

The partnership will allow AZL to provide a supply (alternate to that from China) of separated rare earth products, guaranteeing certification and supply chain traceability from ore mined and processed in Australia through to customers' products. It will also allow AZL to participate in downstream markets and capture further value adding for its rare earth products. VTRE's rare earths operating costs are similar to or lower than in China, which will ensure that AZL's production costs will be world competitive.



Further toll processing of DZP feed to produce rare earth metal alloys is also intended. An AZL/VTRE joint marketing company is planned as the vehicle to market VTRE's currently produced rare earths and associated downstream products.



VTRE Rare Earth Separation Plant

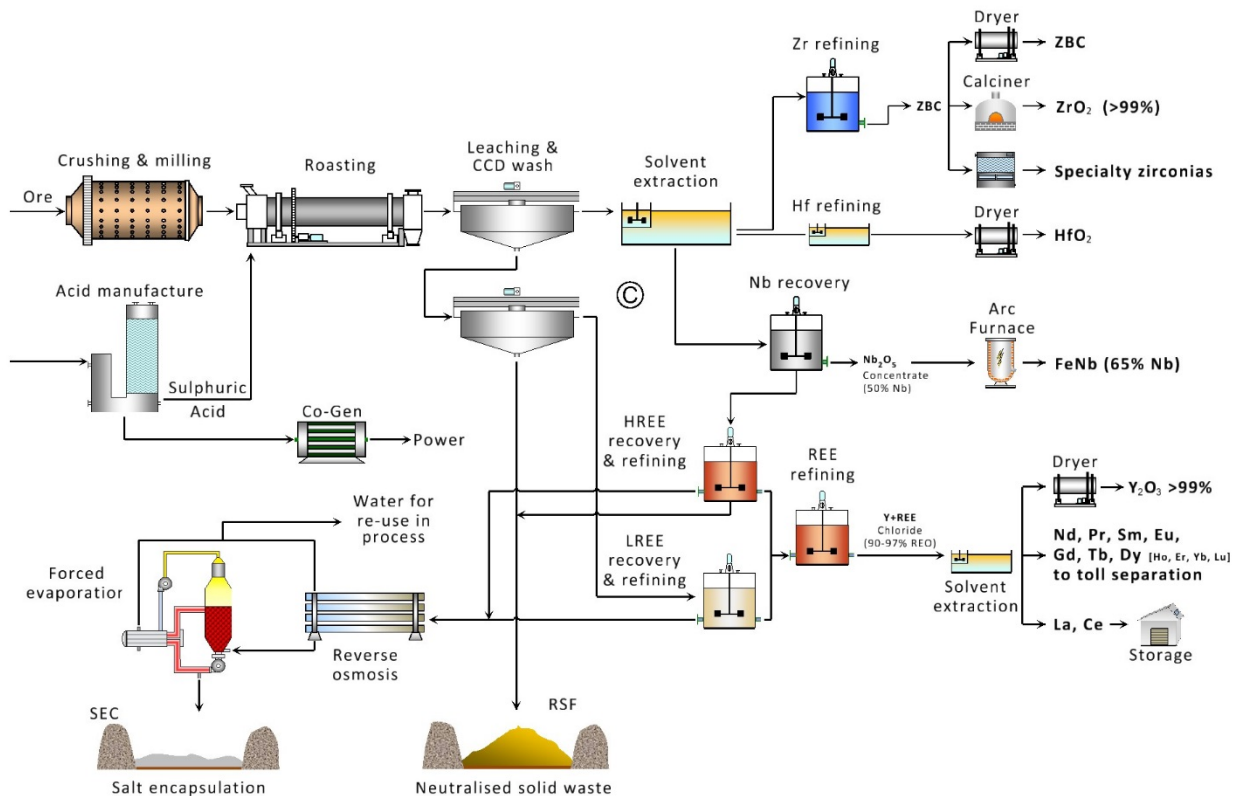


VTRE Tunnel Kiln - Rare Earth Finishing

Engineering

The Project remains ready for detailed design and construction to commence, contingent on financing. Early Contractor Involvement (ECI) has continued with Outotec, with discussion on how to further reduce the project's overall capital cost.

DZP Flowsheet





Marketing

AZL anticipates finalising the worldwide Zirconium Marketing Agreement with a leading European manufacturing and trading company this quarter. This company specialises in advanced ceramic materials and has operated in the downstream zirconium industry for many years.

The Company has joined the London based **Minor Metal Trade Association (MMTA)** to assist with market distribution of the DZP's output. The MMTA is the world's largest trade association focussed exclusively on minor metals. It serves to benefit and promote the interests of its international membership, comprising companies actively involved in all aspects of the international minor metals sector.

AZL will participate in the MMTA annual conference in Amsterdam, and will make a presentation on hafnium and the DZP. Over 250 delegates from leading industrial and aerospace companies will be in attendance. Alkane will hold meetings with a number of DZP potential off take partners in Europe and the United States following the MMTA conference.

The Company has been invited to present at the Annual Cleantech and Technology Metals Summit in Toronto in May. AZL will also attend the Ruidow Zircon conference in Nanjing, China in late May and will make a presentation on zirconium products and the DZP.

Product Markets

Prices for all DZP products remained flat during the quarter as new demand was soft as stockpiles/inventories were run down.

Financing

AZL continues to work with its advisors to progress funding of the Project. With project development approval received, AZL is redoubling efforts in relation to funding. The broad strategy has not changed with strategic investment, Export Credit Agency finance and commercial debt remaining as the key components of the envisaged project funding suite.

The ability of the DZP to provide long term sustainable security of supply of a diverse range of over 10 critical metals and oxides is one of the strong themes which is being increasingly recognised both in Australia and overseas. The diversity of products and markets also provides stability of revenue streams over a broad base as different markets cycle through ups and downs over time.

BODANGORA (including KAISER) (copper-gold)

Alkane Resources Ltd 100% (includes the Kaiser tenement)

IP Survey

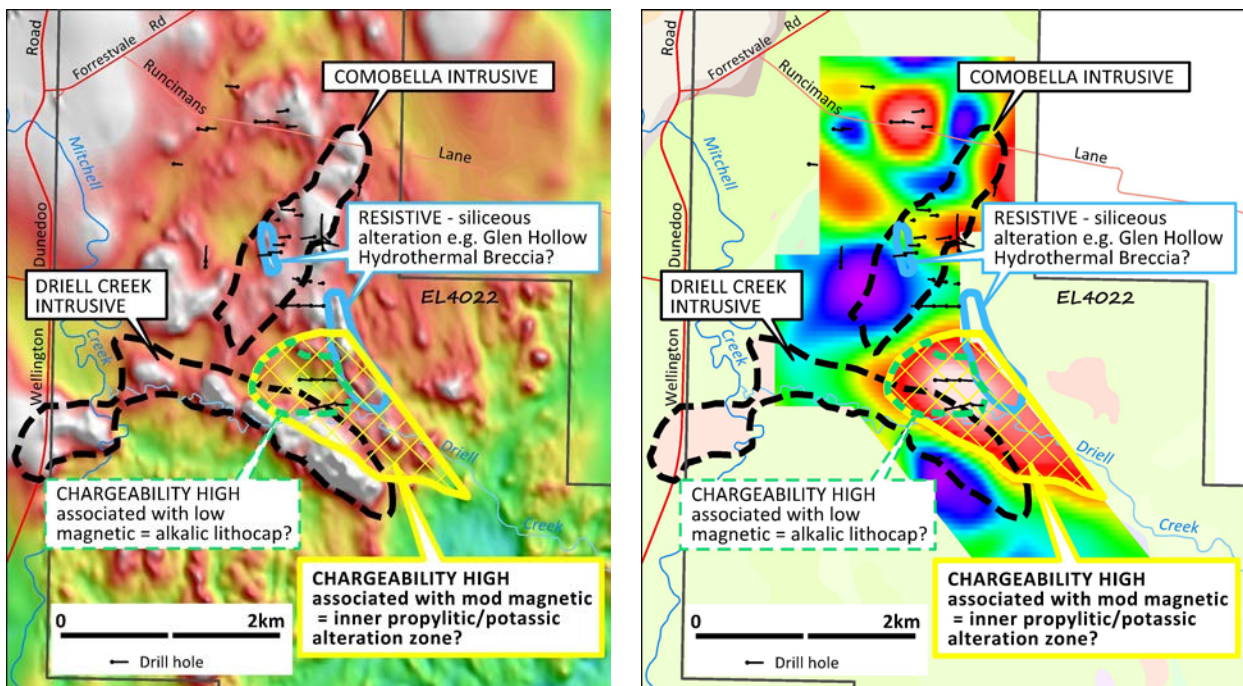
A 3D induced polarisation survey was conducted south of Driell Creek at the Bodangora Project. The survey was completed as an extension of the Comobella IP Survey (2010) and comprised four arrays of pole-dipole and offset pole-dipole traverses totalling 23 line kilometres.

The 3DIP technique provides a useful tool in alkalic porphyry exploration, with the chargeability and resistivity data greatly aiding the mapping of geological units and zones of hydrothermal alteration.



The results of this survey indicate a potential broad control on porphyry activity at the margins and outboard of a major intrusive complex (e.g. Kaiser-Duke and Belgium Prospects marginal to the Kaiser Intrusive Complex), similar to the position of alkalic porphyry gold-copper mineralisation at the nearby Kaiser Project located four kilometres to the south. In particular, the Driell Creek target comprises a major chargeable zone located at the margin of the Driell Creek Intrusive Complex (DCIC). Existing drilling coverage at the northern extent of the area has identified strongly developed sericite + pyrite + albite + K-feldspar alteration within basaltic volcanoclastics of the Bodangora Formation which is interpreted to represent an alkalic lithocap hydrothermal setting similar to that which forms blanket and shoulder features at the economically significant Ridgeway and Cadia East Deposits. An open two kilometre trend appears evident in the chargeability data, where the northern extent of the Driell Creek chargeable zone is coincident with magnetic lows, with moderate chargeabilities coincident with magnetic highs in the south. This trend is interpreted to represent a change in the hydrothermal environment from an alkalic lithocap setting in the north towards a proximal porphyry position towards the south.

The IP results have also highlighted the prospectivity of the southwestern contact of the DCIC for alkalic porphyry mineralisation.



Driell Creek Intrusive Complex with chargeability high on magnetics / Induced polarity slice at 100 metres

Drilling

1761 metres of RC drilling was completed in 7 holes at the Duke, Belgium and Boda prospects. A single hole was completed to test for apparent increasing grades within the southern portion of the Duke Prospect. The hole intersected disseminated pyrite mineralisation within weakly altered volcanics with a zone of intense later phyllic alteration associated with an interpreted (from magnetics) north-south structure. The alteration and mineralisation is very similar to that encountered in other drill holes completed at Duke. At the Belgium prospect 2 holes were completed to test for interpreted repetitions of the Kaiser system on the southeast margin of the Kaiser Intrusive Complex. The holes were not optimally located due to landholder restrictions and intersected narrow zones of weak alteration and pyrite mineralisation. At the Boda Prospect 4 holes were completed to test the along strike extent of the Belgium target and to follow-up elevated gold values intersected in drill holes completed by Rio Tinto in



1997. Each of the holes intersected strong pyrite mineralisation with very strong phyllic alteration up to 200m in drilled width associated with monzonite and monzodiorite intrusives. Assay results are awaited.

WELLINGTON (copper-gold)

Alkane Resources Ltd 100%

A small 3DIP survey, totalling 11.3 line kilometres, was conducted south of the Galwadjere deposit within the Wellington project. No significant chargeable features were identified in the preferred stratigraphic position. Several small discrete features were identified to the south east however these can be explained by existing data sets and are not worthy of follow-up.

ELSIENORA (gold)

Alkane Resources Ltd earning 80%

1594 metres of slim line RC drilling was completed in 16 holes to test the strike extent of the Cuddyong mineralisation identified in soil sampling and drilling undertaken in early 2015, and to provide a first pass assessment of the mineralisation within the historical Stockyard Creek workings. At Cuddyong 14 holes were completed along traverses to the north and south of the line of holes drilled in 2015. The drilling intersected mafic volcanics, volcanoclastics and sediments typical of the lower Cuddyong Volcanics package. Narrow zones of quartz veining with sulphide (pyrite and arsenopyrite) are developed within the volcanic units. At Stockyard Creek 2 holes were completed to quickly test the potential for mineralisation associated with the upper Silurian around the historic workings. The drill holes intersected unaltered and undeformed rhyolite to very felsic welded tuff. Assay results are awaited.

ORANGE EAST PROJECT (gold-copper), CUDAL (gold-zinc), ROCKLEY (gold) and FINNS CROSSING (gold-copper) were inactive during the quarter

LEINSTER REGION JOINT VENTURE (nickel-gold)

*Alkane Resources Ltd 19.4% diluting, Australian Nickel Investments Pty Ltd (ANI) 79.6%. Two prospects - **Miranda** and **McDonough Lookout**.*

ANI (Western Areas Ltd) has advised that it has commenced a data review of the projects to guide future exploration.

CORPORATE

The Group's cash and bullion on hand at quarter end increased by A\$1.9M to A\$21.0M, comprising cash of A\$16.7M and bullion on hand valued at A\$4.3M. The Group had \$4.0M of debt at quarter end (nil debt at the end of the previous quarter). Funds generated from Tomingley were supplemented with the drawdown of the \$4.0M working capital facility announced last quarter. Outflows of \$5.0M were made in the quarter on the DZP, predominately relating to key land purchases.

Call options for the remaining project land acquisitions at the DZP have all been exercised and settlement on the last of these properties should be completed by the end of May.

The Company and Credit Suisse (Australia) Limited have mutually agreed to allow the financing and advisory mandate to lapse due to the main equity component of DZP financing being subject to the key strategic investment and ECA financing taking priority. The separate mandate with Sumitomo Mitsui Banking Corporation is being revamped to reflect their ongoing role as sole lead coordinator of Export Credit Agency and other available government assistance programs.



Competent Person

Unless otherwise advised above, the information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr D I Chalmers, FAusIMM, FAIG, (director of the Company) who has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Chalmers consents to the inclusion in this report of the matters based on his information in the form and context in which it appears

Disclaimer

This report contains certain forward looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Alkane Resources Ltd, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Alkane Resources Ltd. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. Nothing in this report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geosciences.

ABOUT ALKANE - www.alkane.com.au - ASX: ALK and OTCQX: ANLKY

Alkane is a multi-commodity company focused in the Central West region of NSW, Australia. Currently Alkane has two advanced projects - the Tomingley Gold Operations (TGO) and the nearby Dubbo Zirconia Project (DZP). Tomingley commenced production early 2014. Cash flow from the TGO will provide the funding to maintain the project development pipeline and will assist with the pre-construction development of the DZP.

The NSW Planning Assessment Commission granted development approval for the DZP on 28 May 2015 and on 24 August 2015 the Company received notification that the federal Department of the Environment has assessed the mining project and its impacts, and has given its approval for the development. Mining Lease 1724 was granted on 18 December 2015 and the Environment Protection Licence was granted on 14 March 2016. Financing is in progress and this project will make Alkane a strategic and significant world producer of zirconium, hafnium and rare earth products when it commences production in 2018.

Alkane's most advanced gold copper exploration projects are at the 100% Alkane owned Wellington and Bodangora prospects, and Elsiehora farm-in. Wellington has a small copper-gold deposit which can be expanded, while at Bodangora a large 12km² monzonite intrusive complex has been identified with porphyry style gold copper mineralisation. Encouraging gold mineralisation was drilled at Elsiehora early in 2015.

