



QUARTERLY REPORT TO 31 MARCH 2007

KEY SUMMARY

➤ DUBBO ZIRCONIA PROJECT

- Flowsheet development work continued at ANSTO with positive results for process optimisation, including potential to recover separated zirconium and hafnium metals.
- Construction underway for Demonstration Pilot Plant.
- Market for commodities shows continuing growth and development.

➤ EXPLORATION – MOORILDA Newmont JV

- Soil geochemistry and geological mapping extend target area to over 5km strike length at McPhillamys.
- Reconnaissance IP surveys generate strong chargeability anomalies at McPhillamys
- IP also generates chargeability anomaly co-incident with multi element geochemical anomaly at the Moorilda Complex.

➤ EXPLORATION – MOLONG Newmont JV

- Strong chargeability anomaly generated from IP survey at Borenore.

➤ EXPLORATION – TOMINGLEY GOLD PROJECT

- Further reconnaissance aircore drilling at the Caloma prospect, immediately west of the Wyoming deposits, has extended the known mineralisation by 300 metres, including:
PE 094 3 metres grading 27.00g/t gold from 33 metres
- A 3,000 metre preliminary RC resource drilling program has commenced at Caloma.

➤ EXPLORATION – WELLINGTON

- A 3D Induced Polarisation survey has generated several strong chargeability anomalies with similarity to the Galwagere copper orebody. Drill testing of these targets is being programmed.

NEW SOUTH WALES

TOMINGLEY GOLD PROJECT (TGP)

Alkane 100% subject to separate royalty agreements with Compass Resources NL, Golden Cross Operations Pty Ltd and Climax Mining Ltd.

Activity for the Quarter has focussed on the **Caloma** area (figure 1) which is located about 500 metres east of the Wyoming Three deposit and is considered to have the resource potential important for the proposed development of the 600,000 ounce **Wyoming** deposits.

Following the aircore and reconnaissance RC drilling at the Caloma area reported in the 31 December 2006 Quarterly Report another small aircore program of 23 holes (1168m) was completed to test the northern continuity to the gold mineralisation and the Wyoming style host porphyry. Two east-west lines 120 metres apart were drilled 200 metres north of the ore grade intercepts returned from 6394160N. Altered and veined feldspar porphyry was intersected on both lines and results gave encouraging gold results. Also hole **PE 094** at the eastern end of 6394360N intersected a quartz vein in the volcanoclastic sediments which returned **3 metres grading 27.00g/t gold**.

These results extend the Caloma target 300m to the north and give a total strike length of 600 metres. Unmineralised clay cover in the area is generally less than 10 metres. Geological modelling also suggests that the target may extend an additional 300 metres to the south and this will be tested with aircore drilling as soon as practical.

A 3000 metre RC drilling program is underway to provide a preliminary resource estimate for Caloma.

Table 1: TGP reconnaissance aircore results greater than 0.5g/t gold

Hole No	East	North	RL (m)	Azimuth	Inclin	Intercept (m)	Grade (g/t Au)	Interval (m)	EOH (m)	Comments
PE094	615060	6394360	~270	270°	60°	3	27.00	33 - 36	68	Caloma
PE103	614940	6394360	~270	270°	60°	6	0.86	30 - 36	78	Caloma
PE113	614900	6394480	~270	270°	60°	4	0.99	60 - 64	64	Caloma

Gold analysis by 30g fire assay of speared 3m composite Air Core samples. True widths are not clear at this time. EOH = End of hole

Definitive Feasibility Study (DFS)

Feasibility studies have been ongoing since 2005 and have considered various development scenarios, most of which involve all mining and infrastructure to be located at the Wyoming site, about 2 kilometres south of the Tomingley town site and 12 kilometres north of the Company's Peak Hill Gold Mine.

The current conceptual development consists of two open pit mines, Wyoming One and Three, followed by an initial underground operation focussed on Wyoming One. Gold production would be through a conventional CIL gold recovery circuit at an open pit rate of 0.5 to 1.0 million tonnes per annum followed by an underground mine at 0.25 million tonnes per annum. The delineation of additional open pitable ore at Caloma is important to achieving the 1.0 million tonne per annum target and this treatment rate would recover 60,000 to 70,000 ounces of gold a year for a minimum of four years. An underground operation would have reduced output but a target life of four years is also being considered. It is anticipated that the current feasibility study should be completed by mid 2007, leading to a final definitive feasibility study and hopefully a development decision by the end of the year.

Capital costs remain crucial to the financial viability of the project and the Company has been actively reviewing available plant and equipment throughout Australia. As the final specifications are not yet available, no plant has been sourced to date. A 1Mtpa operation is anticipated to cost around A\$40 million.

While general industry operating costs have escalated over the last few years, the TGP is located in an area of substantial existing infrastructure with the major Newell Highway transecting the project, linking a number of towns with a regional population base exceeding 150,000. No camp facilities are required and the workforce can

be sourced locally. A natural gas pipeline and railway are located five kilometres west of Tomingley, and power is available from the New South Wales state grid. These factors should help minimise the impact of rising costs.

Water supply remains an issue but it is thought that a pipeline could be laid from the Macquarie River at Narromine, 40 kilometres to the north of the project site.

DUBBO ZIRCONIA PROJECT (DZP)

Australian Zirconia Ltd (AZL) 100%

During the quarter ANSTO Minerals advanced the process optimisation program with promising results in minimising acid consumption and improving metal recoveries. ANSTO has also completed a review of the solvent extraction component of the flowsheet and recommended some testing which will follow over the next few months. Importantly, the review demonstrated that there are no technical impediments to the process of extracting and recovery of the valuable minerals, including separation of zirconium and hafnium, and recovery of uranium.

Production of uranium remains prohibited in New South Wales but the current flow sheet requires removal of uranium from the zirconium process stream otherwise it contaminates the end products. The uranium recovered by this process would be stabilised and dispersed in to the residue storage facility. The Project would benefit from the flow on effect of less residue management costs and increased revenue from the sale of a uranium product.

The shed to house the Demonstration Pilot Plant (DPP) at ANSTO is nearing completion (see image at the end of this report). Procurement of components for the DPP is underway and it is anticipated that construction of plant should commence shortly. The carbon regeneration kiln at Alkane's now closed Peak Hill Gold Mine is an ideal size for the kiln that forms the front end of the DPP and utilisation of this existing capital equipment should save time and costs. The plant is scheduled to be operated for at least six months and this could be extended to twelve months depending upon any process issues and the amount of sample products required to be distributed to potential consumers. The feasibility database will be progressively updated to enable a development decision to be recommended by the middle of 2008.

Consulting Engineers Worley Parsons in Sydney have been appointed advisors to Alkane for the engineering input into the construction and operation of the DPP at ANSTO Minerals facility at Lucas Heights, south of Sydney.

Over the last four years markets for DZP products has continued to grow and new applications for the metals have become evident. Of particular interest are the uses of zirconium and hafnium metals in nuclear power facilities; the replacement of lead chemicals by zirconium in undercoating of all metal components of new vehicles; and the recent separate announcements by Intel and IBM on the discovery that hafnium is a key component in new generation microprocessors.

ORANGE DISTRICT EXPLORATION JOINT VENTURE - ODEJV (gold-copper)

Alkane Exploration Ltd 100%, subject to Newmont Australia Limited earning an initial 51%

Molong Project

An Induced Polarisation (IP) survey over the **Borenore** aeromagnetic anomaly, which is located two kilometres southeast of the **Charlies** prospect, has identified a 1km by 0.5km chargeability anomaly associated with a demagnetised zone within the larger 3km by 1km aeromagnetic anomaly. This target has the potential to host Cadia-Ridgeway style porphyry copper-gold mineralisation and will be tested by diamond core drilling.

Moorilda Project

Regional exploration around the McPhillamys discovery commenced with geological mapping and extensions to the soil geochemistry program to the north and south of McPhillamys, and at Grahams which is located 4.5 kilometres to the northwest. Reconnaissance IP lines have also tested the immediate area to the north and south of McPhillamys, at Grahams and at the Moorilda Complex, 15 kilometres to the south.

Mapping completed to date has located additional historic mine workings about one kilometre to the north of McPhillamys with much of the intervening area being under shallow transported cover. However the limited outcrop in the area shows similarity to the rock sequence hosting the gold mineralisation at McPhillamys. While many results are yet to be received, the soil geochemistry has extended the anomalous gold values one kilometre to the south of McPhillamys East, a new target area to the east of the historic Last Chance mine workings. A weak soil anomaly has also been generated at Grahams.

The two IP lines at McPhillamys both gave strong chargeability responses, with the line to the north returning a very strong anomaly 300 metres on strike with the main mineralised zone. Grahams also demonstrated two moderate chargeability anomalies, one of which is associated with the gold soil anomaly.

The soil and IP data, combined with a review of historic exploration information has confirmed that a target corridor about five kilometres in length covers the McPhillamys area, stretching from south of the Last Chance mine to McPhillamys North (see figure 2). Other parallel north-south target corridors are less well defined to the east, but include the old Confidence Mine. Based on the known geology and mineralisation at McPhillamys, these zones present immediate drilling targets.

In the Moorilda Complex area, the reconnaissance IP has generated a strong chargeability anomaly below the surface multi element geochemical target, and also defines a drilling target.

CUDAL (gold-copper)

Alkane Exploration Ltd 100%

The reconnaissance RC drilling scheduled to test the Bowan Park area was delayed by unavailability of the drilling rig, but this is now been re-scheduled to follow the Caloma drilling. The target is the mineralised contact of a micro-syenite intrusive where rock chip sampling returned values to 1g/t gold and 0.17% copper within a 300 metre long gold soil anomaly.

WELLINGTON (copper-gold)

Alkane Exploration Ltd 100%

A 3D IP survey was completed covering the **Galwadgere** copper deposit (**2.09Mt @ 0.99% Cu and 0.3g/t Au**) and the immediate area of 3km by 2km. A number of moderate to strong chargeability anomalies were generated and, importantly, the existing Galwadgere mineralisation was clearly mapped. Apart from Galwadgere, three well defined targets were generated. Two of these are located near the small historic McDowells workings, while the third is just to the east of the outcropping mineralisation (1% Cu, 14% Pb, 8% Zn, 400g/t Ag and 7.5g/t Au) at Christies (see figure 3). No drilling has previously tested these areas.

The IP also clearly identified down plunge extensions to the Galwadgere deposit not tested by Alkane's resource drilling program. Previous core drilling returned ~44m @ 0.7% Cu including 0.25m @ 3.00% Cu, 15.5g/t Au, 230g/t Ag at a down hole depth of 262m in core hole G040 from this zone.

Other less well defined targets are located to the west and southeast of Galwadgere.

A drilling program to test the targets is being planned.

BODANGORA (gold-copper) was inactive.

WESTERN AUSTRALIA

LEINSTER REGION JOINT VENTURE (nickel-gold)

Alkane Exploration Ltd 25%, Jubilee Mines NL 75%

*The three prospects - **Leinster Downs**, **Miranda** and **McDonough Lookout** - are subject to a farm-in agreement with Jubilee Mines NL.*

Jubilee has advised that no field work was carried out in the quarter.

NULLAGINE PROJECT (diamonds)

Alkane Exploration Ltd 60%, Randolph Resources Syndicate 40%

BC Iron (BCI) has the rights to iron and all other minerals except diamonds. Alkane retains a 17% interest in BCI.

BCI have advised that the initial drilling program to test the Bonnie Creek system for Channel Iron Deposits has commenced.

DI Chalmers
Managing Director

ALKANE EXPLORATION LTD

96 Parry Street

Perth WA 600

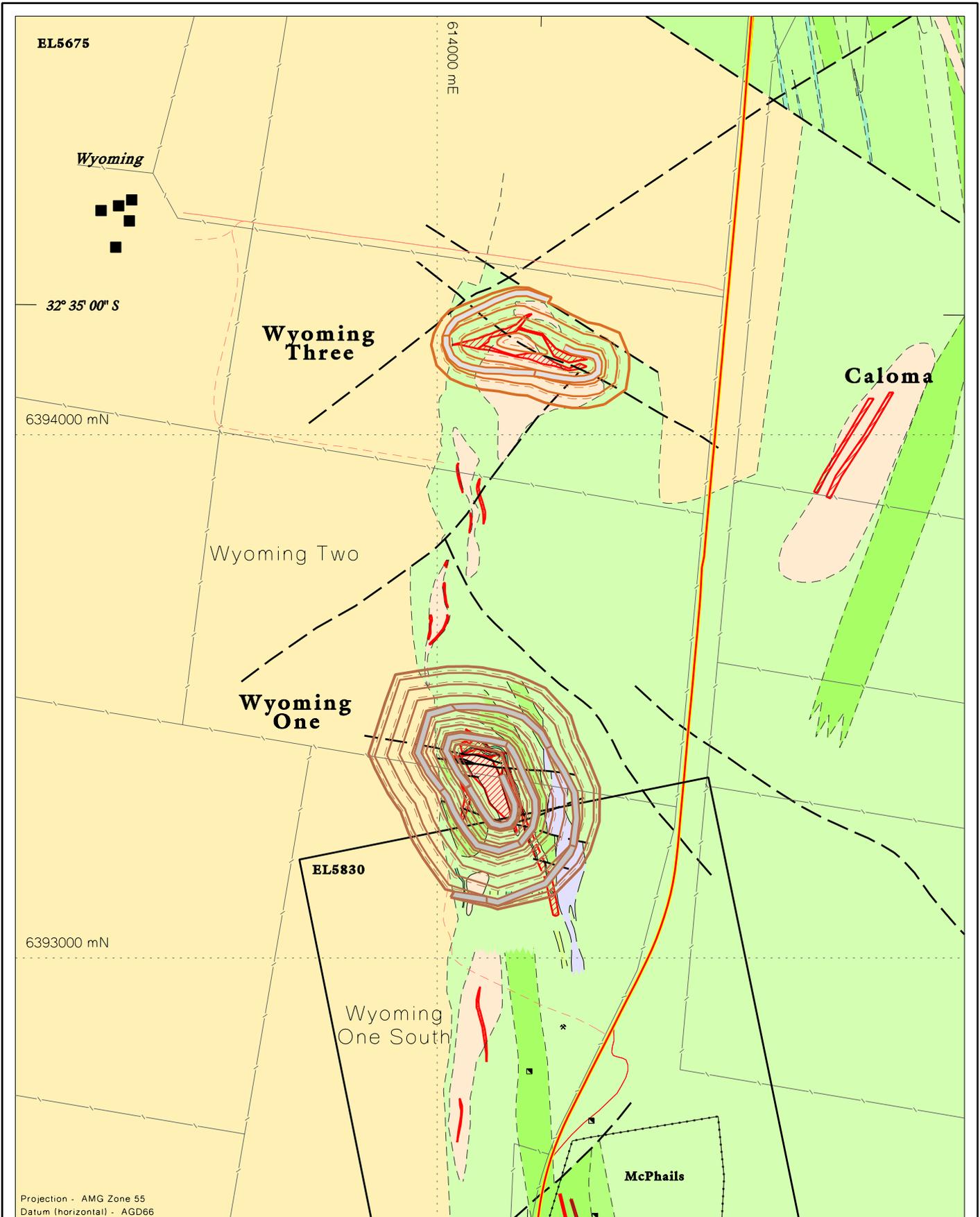
Tel: +61 8 9328 9411

Fax +61 8 9227 6011

Email: ichalmers@alkane.com.au

Mr DI Chalmers, FAusIMM, FAIG, (director of the Company) 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 Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ian Chalmers consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.





EL5675

Wyoming

32° 35' 00" S

614000 mE

Wyoming Three

Caloma

6394000 mN

Wyoming Two

Wyoming One

EL5830

6393000 mN

Wyoming One South

McPhails

Projection - AMG Zone 55
Datum (horizontal) - AGD66

Legend

Geology

- Massive, well foliated pelitic siltstone (Cotton Formation)
- Feldspar porphyry
- Undifferentiated volcaniclastic sediments
- Undifferentiated black graphitic shales and grey foliated siltstones
- Black graphitic shales
- Quartz and volcaniclastic sandstone pebble conglomerate
- Feldspar ± hornblende phyric andesitic lava
- Strongly sheared, chlorite-talc schist

Mineralization

- Mineralization

Geological Symbols and Ornamentation

- Fault, inferred
- Shear zone
- Geological boundary, inferred
- Quartz zone

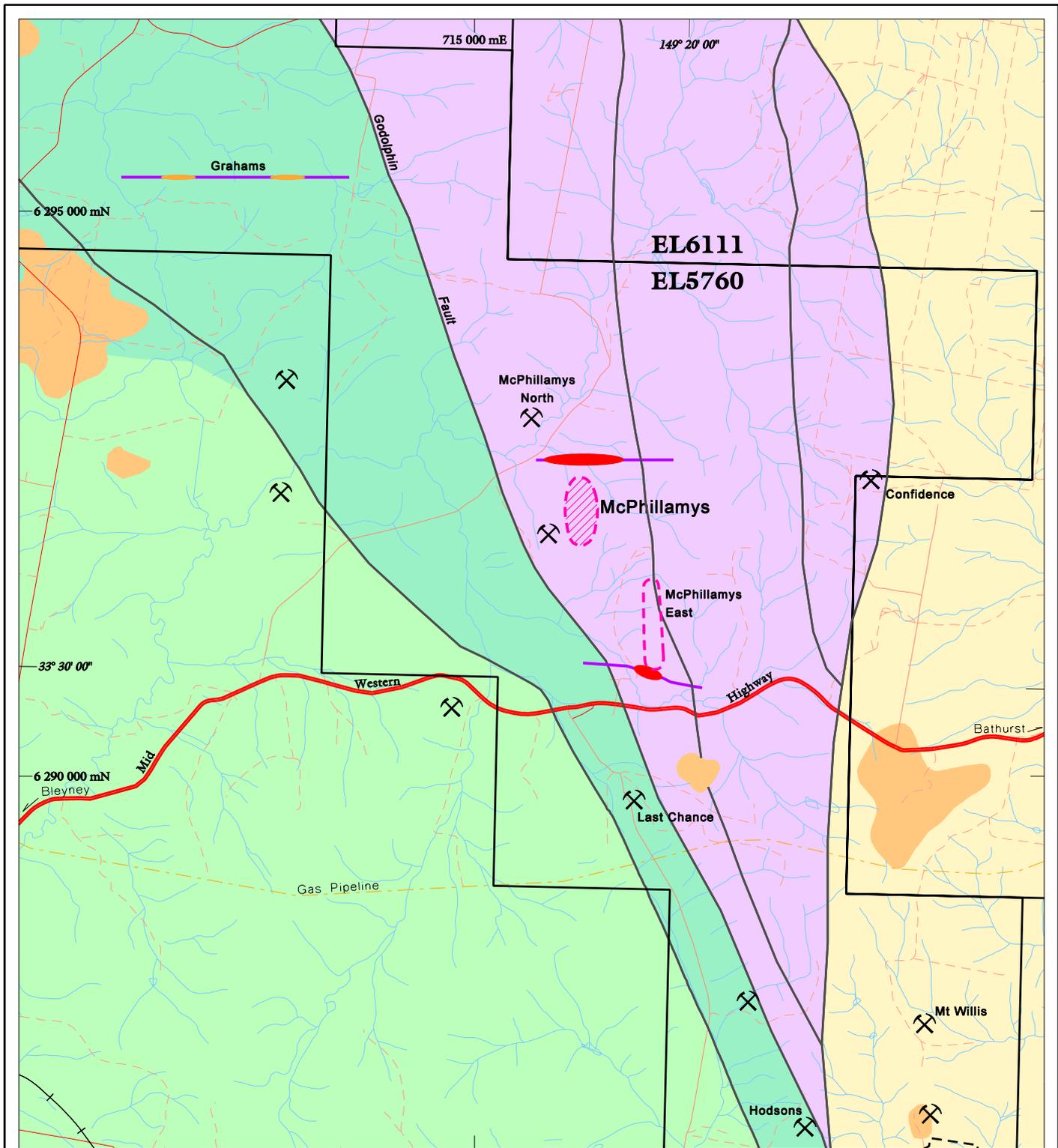


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**TOMINGLEY GOLD PROJECT
WYOMING PROSPECT
Proposed Pit Locations
& Geology**

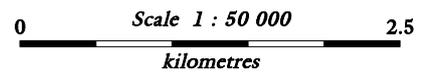
Wyoming One to 100m RL
Wyoming Three to 210m RL

Figure No.: 1



Legend

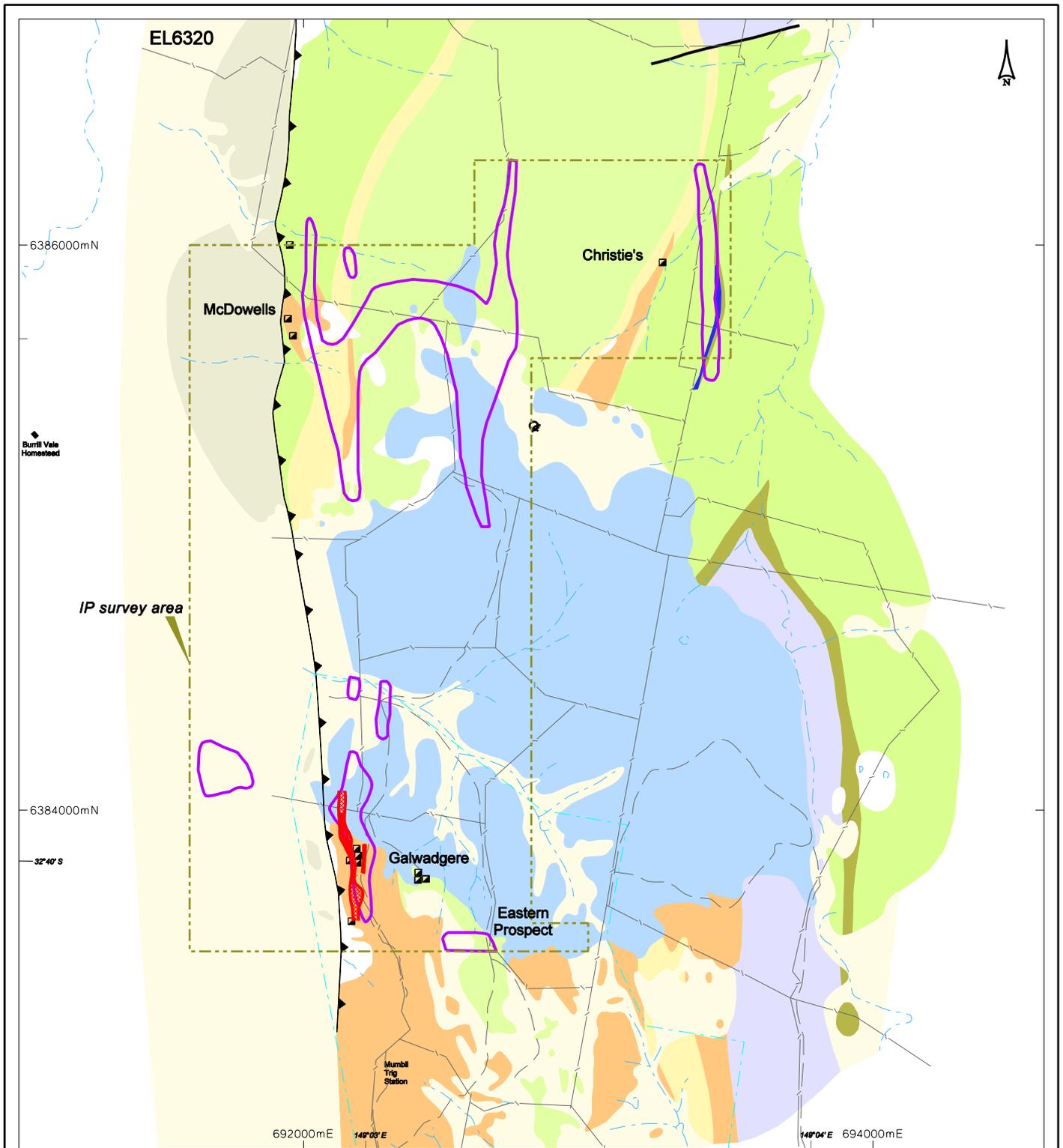
- | | | | | |
|------------|--|---|--|-------------------|
| Tertiary | | Basalt | | Major prospects |
| Devonian | | Sediments & volcanics | | Historic workings |
| Silurian | | Felsic volcanics & sediments | | |
| Ordovician | | Blayney Volcanics - mafic volcanics & sediments | | |
| | | Byng Volcanics - mafic volcanics & sediments | | |
- IP Survey Line**
- IP survey line
 - Chargeability anomaly - high
 - Chargeability anomaly - moderate



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MOORILDA PROJECT
 NEW SOUTH WALES
McPhillamys Prospect

Geology and IP Lines

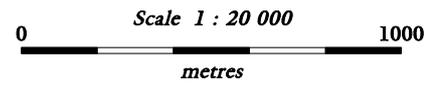


Legend

- | | | | |
|------------------|-------------------------------------|---|---------------------------------------|
| DEVONIAN PERMIAN | | Alluvium and colluvium | |
| | | Conglomerate, sandstone, grit, siltstone | |
| | | Siltstones, green-grey, lack slate cleavage | |
| | SILURIAN | | Andesite, porphyritic, tuff, breccia; |
| | | | Sedimentary interbeds |
| | | | Trachyte |
| | | | Slate, grey |
| | | | Rhyolite breccia tuff |
| | | Slate and tuffite interbeds | |
| | | Andesite, tuff, breccia | |
| | Mineralisation | | |
| | Interpreted chargeability anomalies | | |

Symbols & Ornamentation

- | | |
|--|----------------------|
| | Fault |
| | Nindethana Thrust |
| | Creek, drainage line |
| | Track |
| | Fence with gate |
| | Shaft, Pit |



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WELLINGTON PROJECT
 NEW SOUTH WALES
Galwadgere Prospect
Geology and
Induced Polarisation Anomalies

Compiled : Multi Metal Consultants Pty Ltd Plan No. : ALK WEL 1GA-005
 Drafted : DJM Date : April 2007 Figure No. : 3