



30 October 2015

## **QUARTERLY REPORT**

### **FOR PERIOD 30 September 2015**

**(ARK: code AHK)**

#### **OPERATIONAL HIGHLIGHTS FOR THE QUARTER**

- **Signed Toll treatment agreement with Newmarket Gold to treat Mt Porter Ore**
- **Successfully determined a commercial Mining project for Mt Porter**
- **Commenced a Mining Management Plan for Mt Porter so as to commence Mining within 10 months**
- **Drilled the Golden Slips high grade Gold vein at Frances Creek**
- **Signed a binding heads of agreement with NT Mining Operations Pty Ltd (Newmarket) for the purpose and with the intention of acquiring the Glencoe gold project located in the Northern Territory**



## ARK NEWMARKET TOLL TREATING AGREEMENT

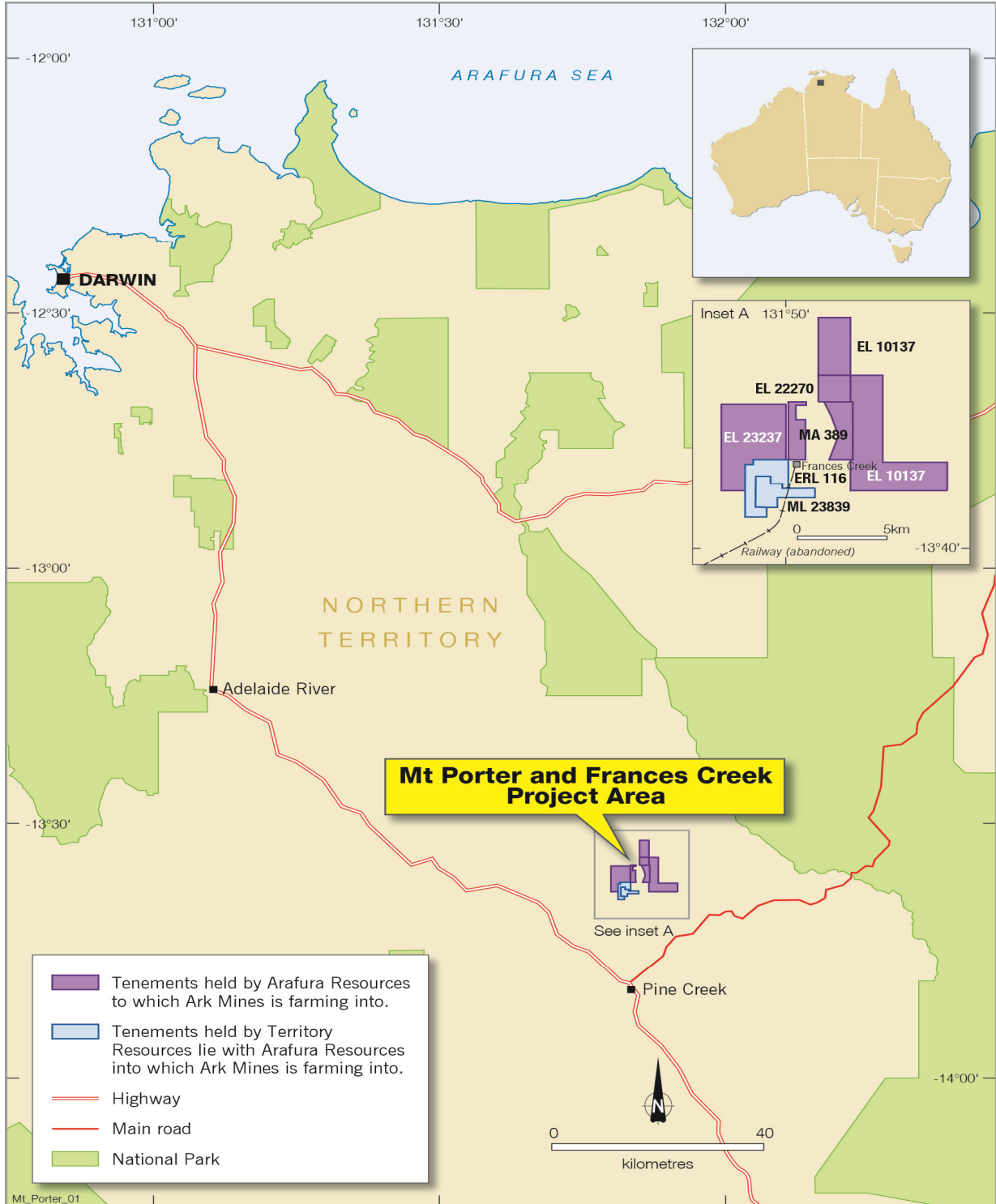
Key terms and conditions of the Agreement include:

- A term of 18 months after signing, extendable upon the express written agreement of the parties;
- AHK shall be responsible for mining (including rehabilitation) and delivering the Mt. Porter ore to Newmarket Gold for processing. Newmarket Gold shall provide AHK, or its nominated contractors, with such diesel fuel and necessary accommodations reasonably required to undertake mining at Mt. Porter;
- Newmarket Gold shall be responsible for processing the Mt. Porter ore into gold doré and selling the gold doré on a monthly basis;
- Each party shall absorb their own costs and expenses from performing their obligations under the Agreement, such costs and expenses are to be deducted monthly from sales of gold doré. Newmarket Gold's processing costs have been agreed at AUD\$30.00 per ton; and
- AHK and Newmarket Gold will split cash flows from the Mt. Porter mining project after payment of their agreed costs, expenses and royalties. From available net funds, AHK shall receive a 55% payment and Newmarket a 45% payment.

Now that the Agreement has been concluded, AHK intends to focus its activities as follows:

- AHK will prepare and submit a mining management plan (**MMP**) for the mining of Mt. Porter and procure MMP approval as soon as is practicable;
- Procure funding to support the MMP process and related working capital; and
- Negotiate and document satisfactory agreements with contractors to mine Mt. Porter and deliver ore to Newmarket Gold for processing.

**Figure 1 – Mt. Porter and Frances Creek Project Location**



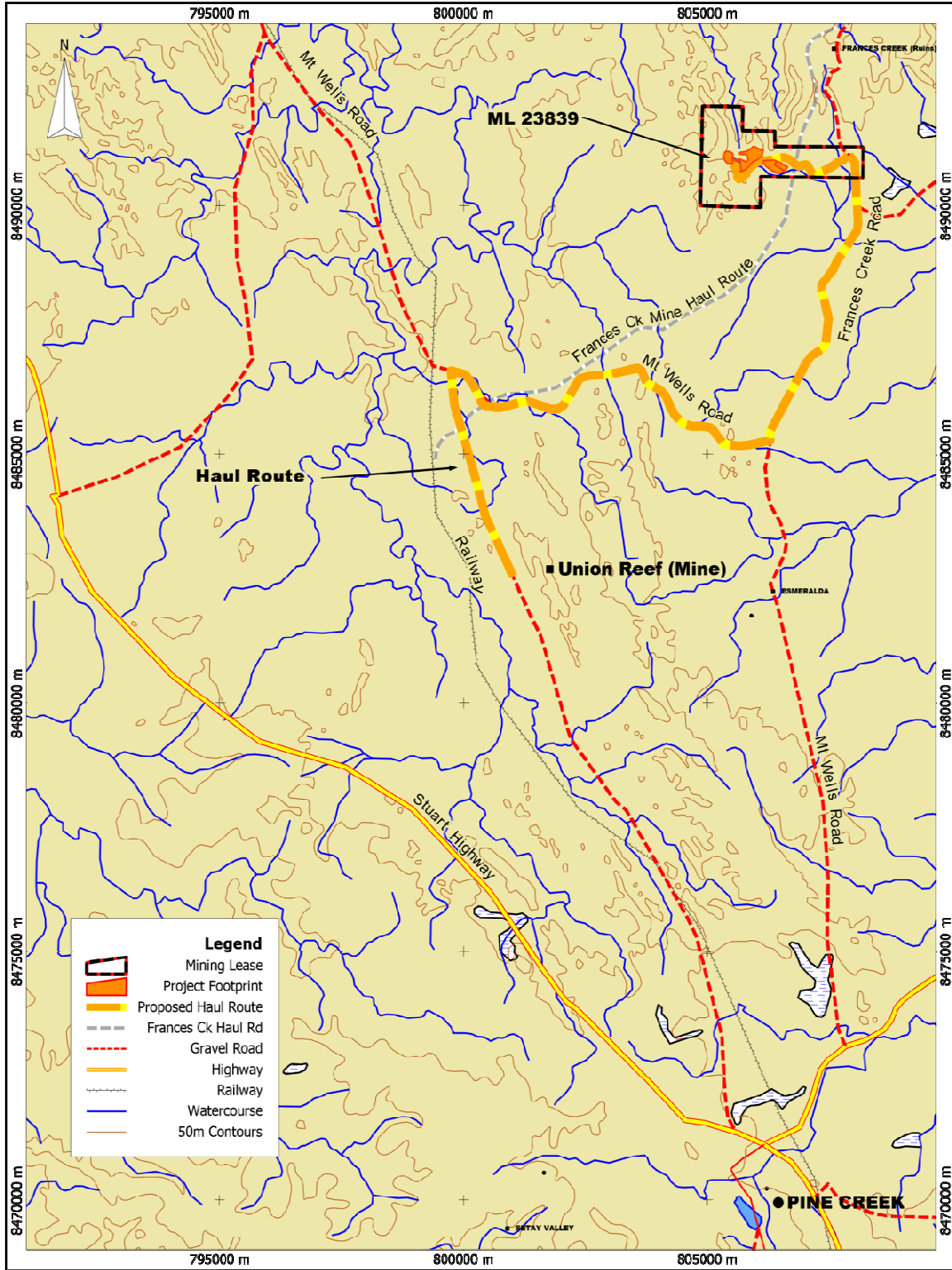
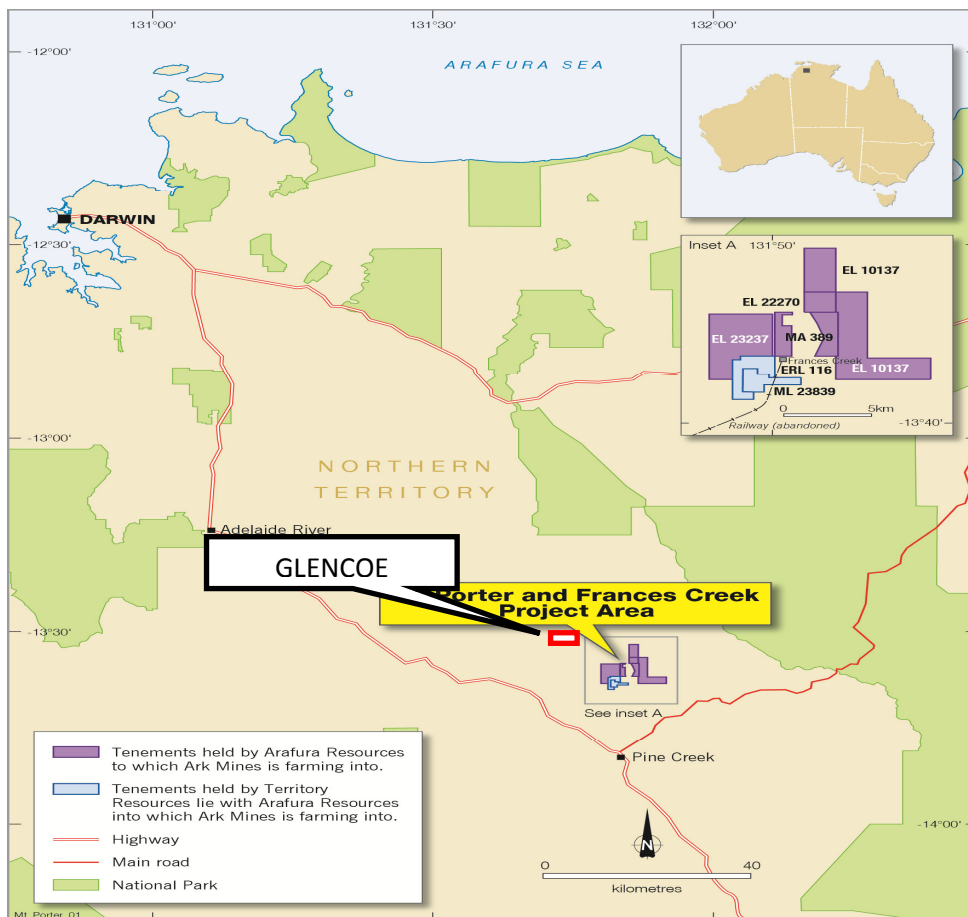


Figure 2 Location of Union Reef Mill relative to Mt Porter Pit

## GLENCOE ACQUISITION

The Glencoe Project comprises mining lease 29679 and all the information concerning that lease including the results of extensive drilling, metallurgical and resource definition work, specific details of which are provided below. It is located in the Pine Creek mineral field, approximately 120km SSE of Darwin, in the Northern Territory and lies between the towns of Pine Creek and Adelaide River to the southeast of Darwin (see Figure 3 below).



**Figure 3: Location of the Glencoe Project**



The material terms of the proposed acquisition, which is subject to AHK being satisfied with the results of due diligence, are that AHK will pay to Newmarket:

- the sum of \$75,000.00 for the Glencoe Project, which sum shall include bonds and other securities already paid or provided by Newmarket;
- the sum of \$100,000.00 upon the commencement of Glencoe Project mining; and
- a royalty of 1% from Glencoe Project gold sales.

Highlights of the Glencoe Project include:

- ✓ 704,000 tonnes @1.9g/t Au with 253,000 tonnes @2.2 g/t Au oxide and 451,000 tonnes @ 1.7 g/t Au (see Table A below). This mineral resource estimate complies with recommendations in the Australasian Code for Reporting of Mineral Resources and Ore Reserves (2004) by the Joint Ore Reserves Committee (JORC);
- ✓ metallurgical test work has shown high gravity/cyanidation recoveries of 95.85% (Ammtec 2012). Reagent consumptions were relatively low, with lime and cyanide consumption of 1.01 and 0.77 kg/t, respectively;
- ✓ Bulk sample has been undertaken and reconcilable
- ✓ Pre strip completed
- ✓ the oxide zone is 30m below surface;
- ✓ the deposit is proximal to the other AHK tenements and within trucking distance of Newmarket's Union Reef Gold Mill;
- ✓ a strike length of 800m (from 3,300mE to 4,100mE) with potential for extensions;
- ✓ the deposit being located in three mineralized zones, the largest of which is a round 700m in strike length, 100m down dip and up to 15m in width;
- ✓ sealed road access;
- ✓ flat and easily accessible terrain; and
- ✓ no existing entitlements.

<b>Table A: Glencoe Deposit April 2006 Mineral Resource Estimate</b>							
<b>1.0g/t Cut-off, High Grade Cut 20g/t</b>							
<b>Zone</b>	<b>Indicated</b>		<b>Inferred</b>		<b>Total</b>		
	<b>Tonnes</b>	<b>Cut Au</b>	<b>Tonnes</b>	<b>Cut Au</b>	<b>Tonnes</b>	<b>Cut Au</b>	<b>Cut Au</b>
	<b>T</b>	<b>g/t</b>	<b>T</b>	<b>g/t</b>	<b>T</b>	<b>g/t</b>	<b>Ounces</b>
Oxide	208,000	2.1	45,000	2.4	<b>253,000</b>	<b>2.2</b>	<b>17,700</b>
Fresh	174,000	2.0	277,000	1.6	<b>451,000</b>	<b>1.7</b>	<b>25,200</b>
<b>Total</b>	<b>382,000</b>	<b>2.1</b>	<b>322,000</b>	<b>1.7</b>	<b>704,000</b>	<b>1.9</b>	<b>42,900</b>

Previous Estimates					
ERA 1989			730,000	2.3	54,000

(see AHK announcement on 13 October 2015)

The following information was obtained from reports by ERA (1988 and 1989) and ORES (2003):

- The lithologies of the project area comprise a sequence of inter-bedded sandstones and siltstones of the Mount Bonnie Formation. The lithologies strike approximately East/West at Glencoe and form a series of moderately folded anticlines and synclines.
- Mineralisation within the Glencoe Project is related to sub-vertical shears proximal to anticlinal crests of folds within the sediments. Certain lithologies (particularly carbonaceous mudstones) show pronounced dilation in the fold hinges and give rise to saddle reef mineralisation extending out from the main shear zones. Subsidiary fracture systems and cross trending tensional features combined with minor intrusions of lamprophyre dykes produce an irregular network of mineralisation concentrated in 4 zones and a number of smaller peripheral occurrences. These zones are shown in Figure 1 below.

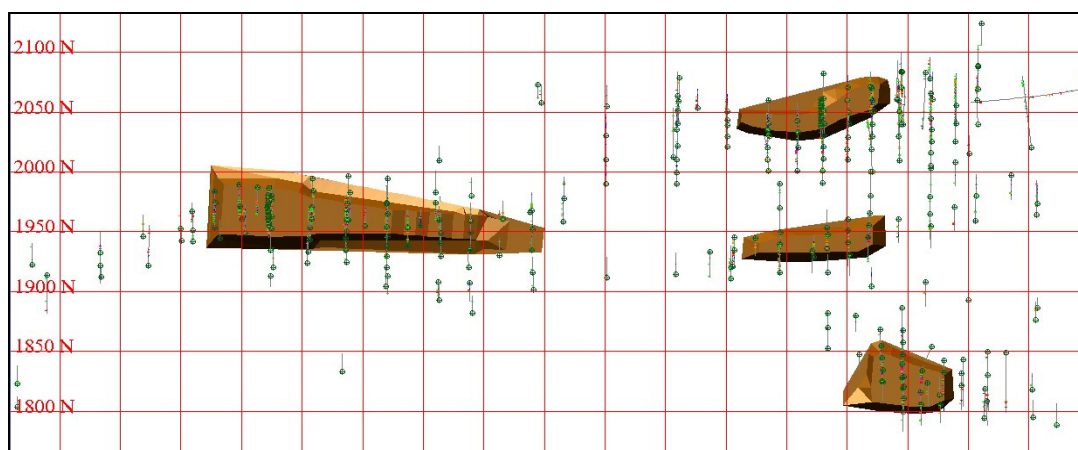


**Figure 4: Anticline in Folded sediments at West Pit**

- The main mineralised shears typically strike East/West with a variable dip from vertical to 60° to the south. The thickness of mineralisation varies from 2-10m

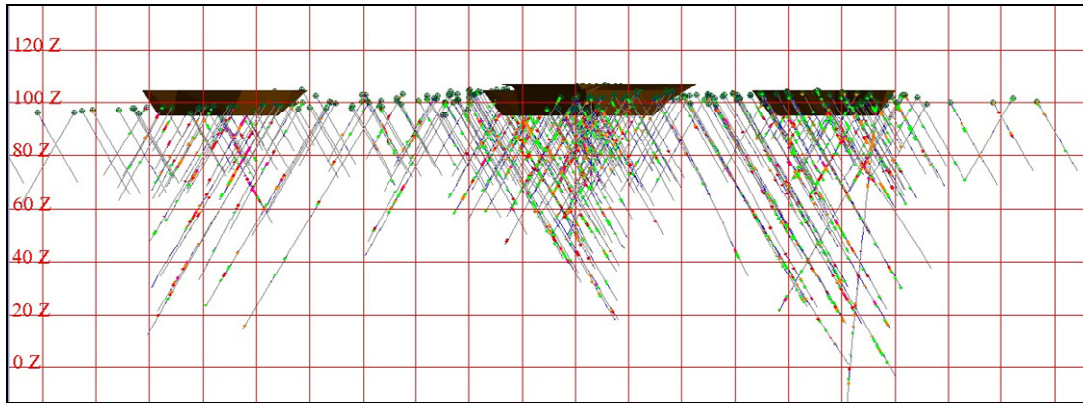
wide and typically forms continuous pods in excess of 100m long. Some of the shears in the South and North pits appear to have a North/West orientation of 315° which slightly conflicts the previous models. This trend requires further validation though pit mapping or drilling if possible.

- Mineralisation in the shears shows a strong association with quartz veining, brecciation and chloritisation with gold occurring intergranular to sulphides pyrite, arsenopyrite and chalcopyrite. Late stage chlorite alteration with associated shearing and brecciation overprint earlier veining and appears to enhance gold grades.
- The saddle reef mineralisation is less continuous than the main shears, with mineralisation typically extending for 20-80m along strike and only 10-20m laterally. The mineralisation is usually 2-3m thick with local thickening of up to 5m. Quartz veining and chlorite alteration are also strongly associated with the mineralisation in the saddle reefs.
- Surface laterite mineralisation covers much of the area at Glencoe especially above the main shears. This mineralisation is typically low grade 0.5-2.0g/t and only 1-2m thick.
- Minor basic igneous intrusives occur around the deposit these are found as lamprophyre dykes sub-parallel to the main shears in the region. These dykes exhibit varying degrees of micaceous and chloritic alteration and contain significant sulphide and gold when mineralised.
- Moderate weathering has occurred in the region to oxidise sulphides in the upper 30m of the deposit.



**Figure 5 Extent of Existing Glencoe Bulk sample and pre strip Open Pits**





**Figure 6 Cross Section Projection of Existing Glencoe Bulk sample and pre strip Open Pits**



**Figure 7: View of West Pit - Looking West**



*The information in this announcement that relates to Exploration Results, has been compiled by Roger Jackson BSc, Grad Dip Fin Man, who is a 20+ year Member of The Australasian Institute of Mining and Metallurgy and who has more than five years experience in the field of activity being reported on. Mr Jackson is a director of the Company. Mr Jackson 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jackson consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears. Resources and reserve calculations were provided by Runge Limited for Mt Porter.*