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PERTH, KALGOORLIE, BRISBANE, VANCOUVER, JOHANNESBURG

19 February 2004

The Directors
Grant Thornton Corporate Services (WA) Pty Ltd
Level 6, 256 St George's Terrace
PERTH WA 6000

Dear Sirs

INDEPENDENT VALUATION OF THE ELOISE COPPER PROJECT

At your request (letter dated 30 January 2004), Snowden Corporate Services Pty Ltd (Snowden) has prepared an Independent Valuation of Breakaway Resources Ltd's (Breakaway) Eloise copper project in North Queensland. It is our understanding that this report will be included in an Independent Experts Report by Grant Thornton Corporate Services (WA) Pty Ltd for a proposed transaction between Breakaway and Barminco Pty Ltd (Barminco). In this report, reference has been extensively drawn from Snowden's December 2002 valuation of the Eloise copper project which formed part of a valuation of the mineral assets of Amalg Resources NL.

The mineral assets that are the subject of this valuation report comprise the Eloise underground copper mine, associated mine infrastructure and mineral tenement holdings on which the mine is located.

Snowden has based its valuation of the Eloise copper project on a site visit during February 2004, discussions with the directors, key project personnel and representatives of Breakaway and on technical information compiled and supplied by the company and its consultants. For the purpose of this valuation, Snowden has not conducted any independent validation of the mineral resource estimates quoted in this report and accepts no responsibility for their accuracy.

A draft version of this valuation report was provided to the directors of Breakaway for comment in respect of omission and factual accuracy. Breakaway has warranted that all material information in its possession has been fully disclosed to Snowden and has agreed to indemnify Snowden from any liability arising from its reliance on the information provided or for information not provided.

Snowden has not independently verified the ownership and legal standing of the Eloise copper project tenements and is not qualified to make legal representations in this regard. Rather we have relied upon documents and information provided by Breakaway and have prepared this report on the understanding that all its tenements are currently in good standing.

Snowden has not attempted to establish the legal status of the tenements within each project with respect to Native Title or potential environmental and land access restrictions.

Snowden has based its valuation of Breakaway's Eloise copper project as at 31 December 2003 upon information known to us as at 19 February 2004. The value assigned to the Eloise copper project is in Australian dollars and was prepared on the 19 February 2004.

Snowden's opinion of the current market value of Breakaway's 100% interest in the Eloise copper project using the methodologies described in Section 2.5 of this report is summarised in the following table.

Eloise Copper Project – summary of valuation (A$ M)			
	Low	**High**	**Preferred**
Operational Value	6.57	21.52	11.08
Exploration Potential	0.45	1.54	0.99
TOTAL:	**7.04**	**23.06**	**12.07**

Snowden Corporate Services Pty Ltd is a wholly owned subsidiary of Snowden Mining Industry Consultants Pty Ltd, an independent firm providing specialist mining industry consultancy services in the fields of geology, exploration, resource estimation, mining engineering, geotechnical engineering, risk assessment, mining information technology and corporate services. The company, which operates from offices in Perth, Kalgoorlie, Brisbane, Johannesburg and Vancouver, has prepared independent expert's reports and mineral asset valuations on a variety of mineral commodities in many countries.

This report was prepared by Mr Philip Retter (Manager Corporate Services), Mr Ian Glacken (Group Manager Resources) and Mr Peter Myers (Principal Mining Consultant) and reviewed by Dr Philip Snowden (Principal Consultant and Managing Director) of Snowden's Perth and Brisbane offices in accordance with the Australasian Institute of Mining and Metallurgy's (AusIMM) Code and Guidelines for Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Experts Reports (the VALMIN Code) and Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code).

Neither Snowden nor those involved in the preparation of this report have any material interest in Breakaway or in the mineral properties considered in this report. Snowden is remunerated for this report by way of a professional fee determined according to a standard schedule of rates which is not contingent on the outcome of this report.

Yours faithfully

Mr P C Retter *B AppSc (Hons), MAIG*
Manager Corporate Services

Dr P A Snowden *D Phil, MAIG, FAusIMM, CPGeo*
Principal Geologist and Managing Director

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

Grant Thornton Corporate Services (WA) Pty Ltd has requested Snowden Corporate Services Pty Ltd (Snowden) to prepare an Independent Valuation of Breakaway Resources Ltd's (Breakaway) Eloise copper project in North Queensland. It is Snowden's understanding that this report will be included in an Independent Experts Report by Grant Thornton Corporate Services for a proposed transaction between Breakaway and Barminco Pty Ltd (Barminco).

The mineral assets that are the subject of this valuation report comprise the Eloise copper mine, associated mine infrastructure and mineral tenement holdings on which the mine is located (identified as MLs 90064, 90080, 90086 and 90155). These assets are collectively referred to in this report as the Eloise copper project.

Snowden has based its valuation of Breakaway's Eloise copper project on a site visit during February 2004, discussions with the directors, representatives and key project personnel of Breakaway and on technical information compiled and provided by the company and its consultants. This valuation is based upon information known to us as at 19 February 2004. The values assigned to the Eloise copper project as at 31 December 2003 are in Australian dollars and were prepared on the 19 February 2004.

2.0 VALUATION CONSIDERATIONS

2.1 INTRODUCTION

The authors of this report are either Members of the Australasian Institute of Mining and Metallurgy (AusIMM) or Australian Institute of Geoscientists (AIG) and, therefore, are obliged to prepare mineral asset valuations in accordance with the Australian reporting requirements as set out in the VALMIN Code and Guidelines for Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Expert Reports as adopted by the AusIMM in 1998. The opinions expressed and conclusions drawn with respect to this valuation of the Eloise project as at 31 December 2003 are appropriate at the valuation date of 19 February 2004. The valuation is only valid for this date and may change with time in response to variations in economic, market, legal or political conditions in addition to on going exploration results.

The objective of a mineral asset valuation is to establish a "fair market" value for an asset in the context of all the foregoing factors.

2.2 FAIR MARKET VALUE OF MINERAL ASSETS

Mineral assets are defined in the VALMIN Code as all property including, but not limited to real property, mining and exploration tenements held or acquired in connection with the exploration, the development of and the production from those tenements together with all plant, equipment and infrastructure owned or acquired for the development, extraction and processing of minerals in connection with those tenements.

The VALMIN Code defines the value, that is fair market value, of a mineral asset as the estimated amount of money or the cash equivalent of some other consideration for which, in the opinion of the Expert or Specialist reached in accordance with the provisions of the VALMIN Code, the mineral asset should change hands on the valuation date between a willing buyer and a willing seller in an arms length transaction, wherein each party has acted knowledgeably, prudently and without compulsion.

In effect, therefore, the valuation expert is assumed to have the knowledge and experience necessary to establish a realistic value for a mineral asset. The real value of a tenement can only be established in an open market situation, where an informed public is able to bid for an asset. The most open and public valuation of mineral assets occur when they are sold to the public through a public share offering by a company wishing to become a public listed resource company, or by a company raising additional finance. In this instance, the public is given a free hand to make the decision, whether to buy or not buy shares at the issue price, and once the shares of the company are listed, the market sets a price.

It is well known to most valuation experts that where mineral tenement valuation is concerned there really are two quite distinct markets operating in Australia. Almost without exception, the values achieved for exploration tenements sold through public flotation are higher than where values are established through, say, the cash sale of tenements by a liquidator, or the sale of a tenement by a small prospector to a large company neighbour, or through joint venture arrangements.

It is our opinion, that in all these circumstances the terms of sale generally do not meet the criteria laid out in the VALMIN Code for fair market value ie. transaction between a willing buyer, willing seller in an arms length transaction, wherein each party had acted knowledgeably, prudently and without compulsion. Invariably one of the parties is a less than enthusiastic participant and it can't be said that the purchase or sale is without an element of compulsion.

It is Snowden's opinion that the fair market value of mineral tenements should be valued by the Expert on the assumption that they are traded by vending them into a public float. Generally this will mean that the vendor is issued escrow shares (escrow period is usually two years). Importantly, this is a true cash sale situation, since the purchaser of the tenements (the public) is always expected to pay cash.

The VALMIN Code notes that the value of a mineral asset usually consists of two components, the underlying or Technical Value and the Market component which is a premium relating to market, strategic or other considerations which, depending on circumstances at the time, can be either positive, negative or zero. When the Technical and Market components of value are added together the resulting value is referred to as the Market Value.

The value of mineral assets is time and circumstance specific. The asset value and the market premium (or discount) changes, sometimes significantly, as overall market conditions, commodity prices, exchange rates, political and country risk change. Other factors that can influence the valuation of a specific asset include the size of the company's interest, whether it has sound management and the professional competence of the asset's management. All these issues can influence the market's perception of a mineral asset over and above its technical value.

2.3 METHODS OF VALUING MINERAL ASSETS IN THE EXPLORATION STAGE

When valuing an exploration or mining tenement the Expert is really attempting to arrive at a value that reflects the potential of the tenement to yield a mineable ore reserve and which is, at the same time, in line with what the tenement will be judged to be worth when assessed by the market. Arriving at the value estimate by way of a desktop study is notoriously difficult because there are no hard and fast rules and no single industry-accepted approach.

It is obvious that on such a matter, based entirely on professional judgement, where the judgement reflects the valuation Expert's previous geological experience, local knowledge of the area, knowledge of the market and so on, that no two valuers are likely to have identical opinions on the merits of a particular property and therefore, their assessments of value are likely to differ - sometimes markedly.

The most commonly employed methods of exploration tenement valuation are:

- Multiple of exploration expenditure method (exploration based) also known as the premium or discount on costs method or the appraised value method;
- Joint Venture terms method (expenditure based);
- Geoscience rating methods such as the Kilburn method (potential based); and
- Comparable market value method (real estate based).

It is possible to identify positive and negative aspects of each of these methods. It is notable that most valuers have a single favoured method of valuation for which they are prepared to provide a spirited defence and, at the same time present arguments for why other methods should be disregarded. The reality is that it is easy to find fault with all methods since there is a large element of subjectivity involved in arriving at a value of a tenement no matter which method is selected. It is obvious that the Expert valuer must be cognisant of actual transactions taking place in the industry in general to ensure that the value estimates are realistic.

In our opinion a geologist charged with the preparation of a tenement valuation must give consideration to a range of technical issues as well as make a judgement about the "market". Key technical issues that need to be taken into account include:

- geological setting of the property;
- results of exploration activities on the tenement;
- evidence of mineralisation on adjacent properties; and
- proximity to existing production facilities of the property.

In addition to these technical issues the valuation Expert has to take particular note of the market's demand for the type of property being valued. Obviously this depends upon professional judgement. As a rule, adjustment of the technical value by a market factor must be applied most judiciously. It is Snowden's view that an adjustment of the technical value of a mineral tenement should only be made if the technical and market values are obviously out of phase with each other.

It is Snowden's opinion that the current market in Australia may pay a premium over the technical value for high quality mineral assets ie. assets that hold *defined resources* that are likely to be mined profitably in the short-term (less than 5 years) or projects that are believed to have the potential to develop into mining operations in the short term even though no resources have been defined. On the other hand exploration tenements that have no defined attributes apart from interesting geology or a "good address" may well trade at a discount to technical value. Deciding upon the level of discount or premium is entirely a matter of the Experts professional judgement. This judgement must of course take account of the commodity potential of the tenement. Currently in Australia for example, a tenement may have an elevated value for its gold and nickel potential. There are of course numerous factors that affect the value such as proximity to an established process facility and the size of the land holding.

The current Australian market in exploration tenements is also strongly impacted by the size of the land holding. In our opinion a large consolidated tenement holding in an area with strong exploration potential attracts a premium because of its appeal to large companies.

2.4 METHODS OF VALUING MINERAL RESOURCES AND ORE RESERVES

Where resources and/or ore reserves have been defined our approach is to excise them from the tenement and to value them separately on a value per ounce or tonne basis or on the basis of a discounted cashflow. The value of the exploration potential of the remainder of the tenement can then be assessed. A similar approach is adopted for the valuation of resources in tailings or rock stockpiles. Where appropriate, discounts are applied to the estimated contained metal to represent uncertainty in the information.

Once a resource has been assessed for mining by considering revenues and operating and administrative costs the economically viable component of the resource becomes the ore reserve. When this is scheduled for mining and all capital costs are considered the net present value (NPV) of the project is established by discounting future annual cashflows using an appropriate discount rate. The resulting "classical" NPV has numerous deficiencies which are linked to the fact that the method assumes a static approach to investment decision making which is obviously not the case. Nevertheless the NPV represents the only practical approach to valuing a proposed or on-going mining operation.

When only a resource has been outlined and its economic viability has still to be established (ie. there is no ore reserve) then typically a "rule of thumb" approach is usually applied. With copper projects this usually means allocating a dollar value to the resource tonnes in the ground.

The quality of the resource tonnes and therefore value is a factor of:

- the grade of the resource;
- the proximity to infrastructure such as an existing mill, roads, power, water, skilled work force, equipment, etc;
- likely operating and capital costs;
- the amount of pre strip (for open pits) or development (for underground mines) necessary;
- the likely ore to waste ratio; and
- the overall confidence in the resource.

2.5 VALUATION METHODOLOGY

2.5.1 Exploration Potential

Having considered the various methods used in the valuation of exploration tenements, Snowden is of the opinion that the Kilburn Method provides the most appropriate approach to the valuation of the exploration potential of the Eloise copper project tenements. In arriving at a fair market value, Snowden has considered its December 2002 valuation and the current market for copper exploration properties in Australia. Snowden is of the opinion that it is appropriate to apply a market premium of 20% to the technical value of the exploration potential of the Eloise project tenements given the recent significant improvement in the copper price and therefore the market for copper exploration properties in Australia.

2.5.2 Mineral Resources and Ore Reserves

For the estimation of the value of the mineral resources and ore reserves at Eloise, Snowden has established the NPV of the mining operation's 'life of mine' production schedule by discounting future annual cashflows.

2.5.3 Environmental Liabilities, Closure Costs and Plant Salvage Values

For the purpose of this valuation, Snowden has not undertaken a detailed assessment of plant salvage values, mine closure costs and rehabilitation liabilities and has based its assumptions on information provided by the management of Breakaway. The financial assumptions used in the cashflow models have not been independently assessed, but it is Snowden's judgement that these revenues and costs are reasonable.

3.0 ELOISE MINE

The Eloise underground copper mine is located in North Queensland approximately 70 km southeast of Cloncurry. Ore production began in 1996 and mining has progressed to approximately 800 m below surface. The mine produces a copper-gold-silver concentrate which is sold and exported overseas for smelting and refining.

Snowden conducted a site visit to the mine between 3 and 5 February 2004 to appraise the operation. The available data and documentation was reviewed specifically in relation to the mine's production schedules, ore reserves, mineral resources and exploration work. Detailed discussions were also held with senior mining staff and an inspection of the mine was carried out.

3.1 HISTORY OF OPERATIONS

The history of operations at Eloise is extensively drawn from Snowden's December 2002 valuation report on the mineral assets of Amalg Resources NL (Amalg).

BHP Minerals Ltd (BHP) discovered the Eloise deposit in 1988 and by 1990 had outlined an Indicated and Inferred Resource of 3.2 Mt at 5.8% Cu, 1.5 g/t Au and 19 g/t Ag using a 4% Cu equivalence cut-off. In 1991, MIM entered into an option to purchase the Eloise deposit and associated leases. MIM completed further drilling to a depth of approximately 200 m below surface. Following MIM's withdrawal, Amalg purchased the deposit and associated leases from BHP in 1994 for $13.25 M. As part of its feasibility study, Amalg completed a program of resource confirmation drilling and metallurgical testwork. Production commenced in 1996.

During the initial mine development, a previously unknown obliquely striking fault was intersected in the mine decline which provides all of the process water requirements for the concentrator. The favourable metallurgical characteristics of the ore enabled a reconfiguration of the grinding circuit, which, with an increased water supply from underground, resulted in a 25 per cent increase in mill throughput rate to 350,000 t/annum. During the first year of operation, ore grades were occasionally below budget as a result of unscheduled mining of ore blocks outside of the ore reserve. Ore tonnages, however, were consistently in excess of forecast and an additional grinding mill was commissioned in late 1997, lifting the mine's production capacity to 500,000 t/annum thus enabling lower grade ore to be mined. In 2002, production was increased to 600,000 t/annum.

Mining commenced on the Elrose (currently referred to as the A lode) and Levuka lodes (currently referred to as the B lode) and progressed to the Eloise West lode (or 62 lode) in 1999 which was mined to a depth of 390 m below surface by early 2001 (Figure 3.1). On completion of mining on the main A and B lodes, ore development was directed towards the upper levels of the Levuka South lode (a faulted repetition of the B lode at depth, truncated down plunge at 460 mRL by the Ramsay fault) in late 2000 via a southern decline off the main decline. A new ventilation shaft was also established.

In March 2003, Amalg acquired Breakaway and changed its name to Breakaway Resources Limited.

A successful program of resource definition drilling during 2003 identified the presence of economic mineralisation below the Ramsay fault which was interpreted as a further faulted repetition of B lode. Mining of the 400 mRL Eloise Deeps (B) lode commenced in August 2003 and mining of the 460 mRL Levuka South (B) lode was completed in September. By December 2003, production from the Eloise Deeps 380 mRL had commenced.

Resource definition drilling has been progressively extended as mining advances to depth, with resources and ore reserves being maintained at about one to two years production. Drilling of the Levuka Deeps to 200 mRL has enabled an Indicated Resource to be estimated to 250 mRL and an Inferred Resource estimated to 200 mRL. Future programs are designed to further test mineralisation to depths down to -300 mRL.

The operational performance of Eloise from commencement is summarised in Table 3.1.

Table 3.1
Eloise mine performance

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04 Half Year
Ore Milled (t)	38,038	345,723	474,490	472,450	519,212	503,779	461,364	551,590	234,701
Head Grade									
Copper (%)	3.29	4.28	4.60	4.53	4.29	3.92	3.68	3.85	3.29
Gold (g/t)	0.83	0.95	1.05	1.27	1.19	1.04	0.97	0.97	0.86
Metal Recovery									
Copper (%)	94.42	94.67	94.29	94.81	95.11	95.00	95.37	95.43	95.3
Gold (%)	43.59	69.74	64.10	67.71	62.52	60.18	59.38	56.4	47.9
Concentrate Production (t)	3,960	47,192	70,765	70,165	71,977	63,402	55,597	68,215	23,771
Concentrate Grade									
Copper (%)	29.87	29.69	28.94	28.92	29.44	29.59	29.04	29.71	29.59
Gold (g/t)	3.60	4.85	4.48	5.79	5.36	4.98	4.79	4.29	4.00

The current extent of mine workings is shown in Figure 3.1.

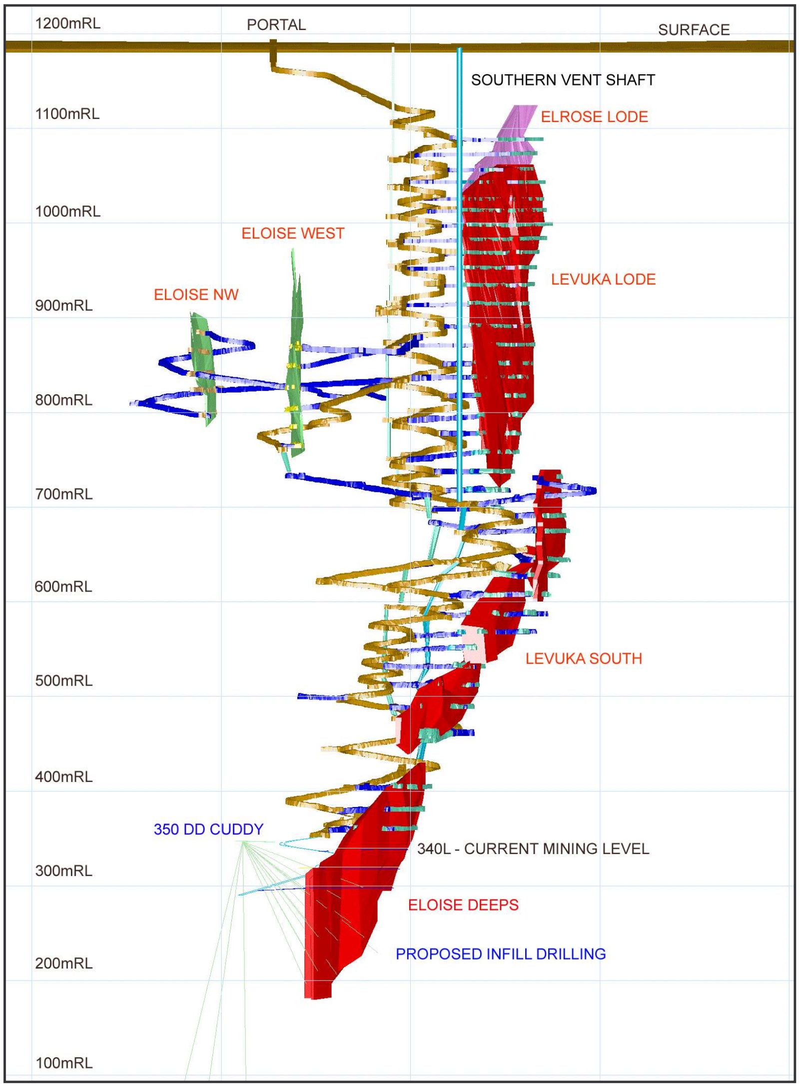

Figure 3.1 Longitudinal view of the Eloise mine

3.2 PROJECT TENEMENTS

Breakaway's tenements covering the Eloise project as at 31 December 2003 are summarised as follows.

Table 3.2
Eloise Project – tenement schedule

Tenement	Name	Date of grant	Expiry date	Area (ha)
ML 90064	Eloise	01.09.95	31.08.2005	241.7
ML 90086	Batt Dam	14.03.02	31.03.2012	18.69
ML 90080	Pipeline	11.12.01	31.12.2011	39.67
ML 90155	Eloise Extended	01.11.03	31.10.2016	205.6

ML 90155 was applied for and granted during 2003 to enable mining operations to progress south beyond ML 90064 into Eloise Deeps (Figure 3.2). Snowden has been advised by Breakaway that it does not anticipate any problems in gaining an extension to ML 90064 beyond August 2005.

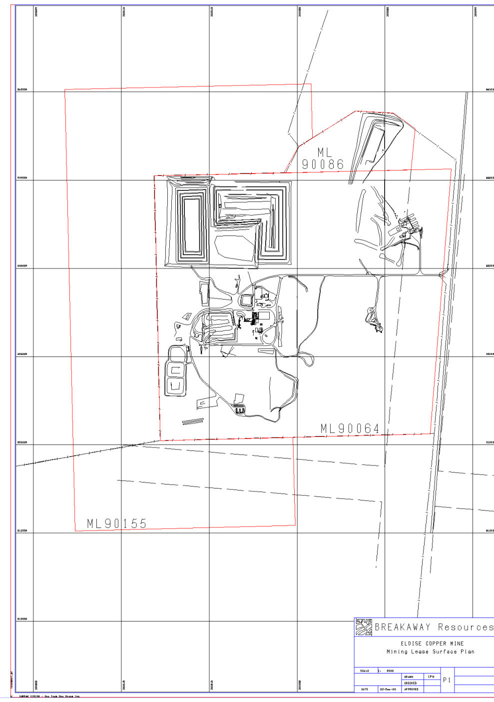

Figure 3.2 Eloise mine tenements and layout

3.3 GEOLOGY

The Eloise copper deposit is hosted by Proterozoic metasedimentary basement rocks of the Mount Isa Inlier. The host rocks strike approximately north-south and dip steeply towards the east. The deposit is overlain by approximately 50 m to 70 m of Mesozoic mudstone and a relatively thin veneer (less than 15 m) of unconsolidated recent sands.

The copper lode deposit is structurally controlled and is interpreted to be associated with a dislocation in the regional N-S trending Levuka Shear Zone. The two main lodes (A and B) are generally conformable with the host lithology and plunge to the south at around 50°. The B lode is the larger lode and has a nominal strike length of around 200 m and maximum thickness of around 20 m. The A lode parallels the B lode at a horizontal distance of around 10 m to 30 m to the west (footwall). Sporadic mineralisation between these lodes has been noted underground but does not reach economic grades or thicknesses. The A lode is characterised by stringer style chalcopyrite-pyrrhotite±pyrite mineralisation with a diffuse boundary whilst B lode mineralisation comprises massive and stockwork chalcopyrite-pyrrhotite±pyrite mineralisation. The B lode hangingwall boundary is sharp and is defined by a lithological contact while the footwall boundary is gradational.

Current development mapping and deeper drilling suggests that the A lode is not continuous with depth.

Three faults have been found to date crosscutting the Levuka South lode, these being the Delphin, Tuesley and Ramsay faults. These faults occur between 650 mRL and 450 mRL where they have displaced the orebody and caused geotechnical and dilution problems for mining.

The level of structural complexity at Eloise has increased with depth due to the presence of these faults and was not anticipated prior to a concerted effort in 2002 and 2003 to review and understand the mine geology. This review was successful in creating a new model which is now being used for predicting the geology in the Eloise Deeps zone.

There has been a general decrease in the head grade over recent time from around 4.5% Cu to 3.7% Cu. Site personnel attribute this change to the increasing structural complexity of the lodes, namely faulting, resulting in ore loss, dilution and local geometry changes that cannot be confidently predicted from the current drill hole spacing.

3.4 PROJECT RESOURCES AND RESERVES

3.4.1 Mineral Resources

The mineral resources for Eloise as at 30 June 2003 as reported in Breakaway's 2003 Annual Report are presented in Table 3.3.

Table 3.3
Mineral resources at 30 June 2003

Lode	Resources							
	Measured		Indicated		Inferred		Total	
	kt	%Cu	kt	%Cu	kt	%Cu	kt	%Cu
Levuka (B)	47	3.89					47	3.89
Eloise Deeps (B)	344	4.19	497	4.36	765	3.95	1,606	4.13
40 Lode					70	3.20	70	3.20
42 Lode			16	5.67			16	5.67
45 Lode					34	4.10	34	4.10
Total	**391**	**4.15**	**513**	**4.40**	**869**	**3.90**	**1,773**	**4.10**

Snowden carried out a brief review of the Eloise Deeps resource estimate and the model and drilling data which was used for estimation. The resource estimate was carried out by Ian Hodkinson of Breakaway Resources, who is acting as the Competent Person in this regard.

Data supplied

The following data was supplied to Snowden by Breakaway:

- a Surpac block model of the Eloise Deeps resource;
- a wireframe solid used to constrain the model;
- the drilhole database;
- a number of resource spreadsheet tabulations;
- a number of memoranda referring to the resource estimation and reporting process, including an external review by Simon Dominy of James Cook University; and
- a comprehensive reconciliation of Eloise production between February 2002 and December 2003.

Estimation methodology

The B Lode resource estimate is a conventional block model (with 2 mX by 5 mY by 5 mZ cells), generated within a wireframe constructed partly on the basis of a 2% Cu cut-off and partly on the basis of geology. This means that a number of sub-2% intercepts are included within the data for estimation, and this is reflected in the observation that a significant tonnage (some 150,000 t out of 1.6 Mt) in the block model is below the nominal 2% Cu cut-off. This subgrade tonnage appears to have been included in the resource tabulation, an action with which Snowden concurs. Resource estimation appears to have been by the Inverse Distance squared (ID2) method. Snowden notes that the Dominy review report refers to a number of check models using both bigger blocks and other estimation algorithms (ordinary kriging, nearest neighbour). In Snowden's opinion the block size used in the model reported in Table 3.3 is too small for a totally reliable estimate, but it is noted by Dominy that an estimate into bigger blocks (3 mX by 15 mY by 15 mZ) generated quite similar numbers to the model used for reporting (apart from the nearest neighbour scenario, which is accepted by Breakaway and confirmed by Snowden as being too high grade). The documentation states that density values for estimation were derived either from traditional measurements (by the traditional water immersion route) or via a modal calculation based upon Fe and Cu grades. Breakaway has confirmed (I Hodkinson, pers. comm.) that the B Lode Deeps tonnage estimation was carried out using a mixture of measured and derived densities, with the majority of samples for Eloise Deeps being derived values. Snowden endorses the use of a derived density which has been calibrated against reliable measured values.

Estimation parameters used in the Breakaway estimate are detailed by Dominy. These show that a minimum of three samples was required to inform a block within the block model. Snowden endorses the comment that this number is too small, and is probably inadequate for reliable local estimates (which is what the resource model has been and will be ultimately used for). Snowden's estimation of the nugget effect (Figure 3.3) suggests a much lower nugget, at 30%, than that derived by Dominy (45%), and this will assist in the better definition of a local grade estimate.

Breakaway's search ellipse for ID2 estimation is reported by Dominy as having dimensions of 40 m down plunge by 27 m by 4 m across strike. This is overly tight and should be increased as part of program to reduce conditional bias in the estimate.

Model review

Snowden carried out visual validation of the B Lode Deeps resource model against the drillholes and found that the local representivity of composite grades was moderate to good. Snowden extracted the drillholes within the wireframe used to constrain the block model. These samples were then composited and compared against the model. The declustered mean grade of 1 m composites (uncut) is between 4.3% and 4.4% Cu, and with top cutting (using the 14% adopted by Breakaway) this drops to about 4.2% Cu. The average grade of the blocks in the Eloise Deeps model (unweighted by density) is 3.85%, and the density weighted grade reports at 3.97%. This suggests a 6-9% underestimation of Cu grades in the model compared to the data, which is within the range of accepted values, albeit on the low side.

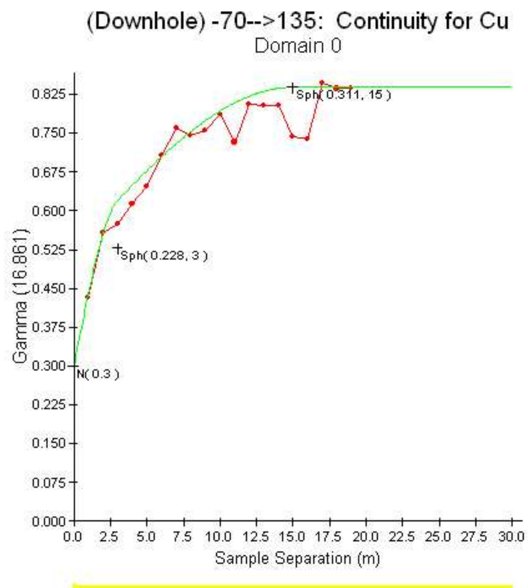

Figure 3.3 Downhole variogram for 1 m composites, B Lode Deeps, showing an interpreted 30% nugget effect

As part of this review, Snowden reported the tonnes and grade within the model and is satisfied that the Snowden's estimate of 1.67 Mt at 3.97% Cu is acceptably close to those reported by Breakaway.

In Snowden's opinion the top cut of 14% Cu applied to 1 m composite data, which represents the 97.5th percentile of the data, is overly severe, however, since the data is not strongly skewed the top cut applied has not significantly reduced the overall Cu grade.

Snowden further notes that the estimate of density uses the same parameters as the copper. In general terms this is endorsed, but with the proviso that if a geostatistical technique such as ordinary kriging is employed then a much lower nugget than that used for copper should be utilised.

Snowden endorses the resource classification scheme employed by Breakaway. Breakaway routinely maps development exposures but does not routinely incorporate such information into the resource model. This information is used, however, for stope design and reserve estimation.

Reconciliation

The ultimate test of a mineral resource and its derived ore reserve is its reconciliation against production. Breakaway has provided Snowden with a detailed reconciliation of milling and mining tonnages between February 2002 and December 2003. This document shows that the best estimate of the mined tonnage and grade is approximately 403,000 t at a grade of 4.44% Cu, and that the milling returns approximately 411,000 t at a grade of 3.40% Cu. There is a significant grade shortfall (23.4%) which Breakaway attributes to a number of factors. These factors are excess mining dilution, ore losses in some stopes and inaccurate local resource model grades. Without a detailed review of the figures contained within the report it is difficult to confirm this conclusion. With respect to the Eloise Deeps resource model, Breakaway comments that the actual resource model boundary is in reality more convoluted than assumed from the relatively widely spaced definition drilling, leading to some inaccuracies. Breakaway suggests that block model grades are locally inaccurate. This is to be expected given the wide spaced drilling and the small estimation block size, and has also been commented upon in the Dominy report. However, the solution (larger blocks, more samples, larger searches), will serve to homogenise the grade and effectively remove local accuracy. The only way to achieve true local accuracy is through collection of more data, be it infill grade control drilling, sludge drilling, or even mapping information. In Snowden's opinion a small part of the grade shortfall evident from the reconciliation study is attributable to local block model estimation errors; most of the discrepancy is more likely to be mining-related.

Findings

The Eloise Deeps resource model appears to be globally sound and contains no material flaws. The quality of the resource estimate can be improved in a number of ways, but it is unlikely that these will result in a grade increase, more likely a homogenisation and perhaps an overall lowering of grade. Snowden endorses the overall resource classification criteria.

It is apparent from the reconciliation information that significant amounts of mining dilution and ore loss have substantially contributed to the grade shortfall.

3.4.2 Ore Reserves

The Eloise mine ore reserves were initially derived from the Measured and Indicated resource estimates as at June 30, 2003 as reported by Breakaway. An arbitrary 2% Cu envelope was applied. The resources contained within the envelope had 10% dilution (by weight) added at a nominal 0.9% Cu grade and a subsequent 5% ore loss factor applied. This was assessed to be the Probable Reserve.

During underground mine development, ore boundaries are mapped and, where necessary, actual ore limits are determined using sludge holes and face samples. As additional underground data becomes available it is combined with the resource model resulting in more accurate boundary definition. Top and bottom ore boundary limits are interpreted on levels and joined to create a stope outline. The resource within the stope becomes the Proved Reserve.

The ore reserves for Eloise as at 30 June 2003 as reported in Breakaway's 2003 Annual Report are presented in Table 3.4.

Table 3.4
Ore reserves at 30 June 2003

Lode	Reserves				Total	
	Proved		Probable			
	kt	%Cu	kt	%Cu	kt	%Cu
Levuka (B)	49	3.62			49	3.62
Eloise Deeps (B)	359	3.90	519	4.06	878	3.99
Stockpiles	4	2.94			4	2.94
Total	**412**	**3.86**	**519**	**4.05**	**931**	**3.97**

The zones of classification for Eloise Deeps resource and ore reserve as at 30 June 2003 are indicated in Figure 3.4.

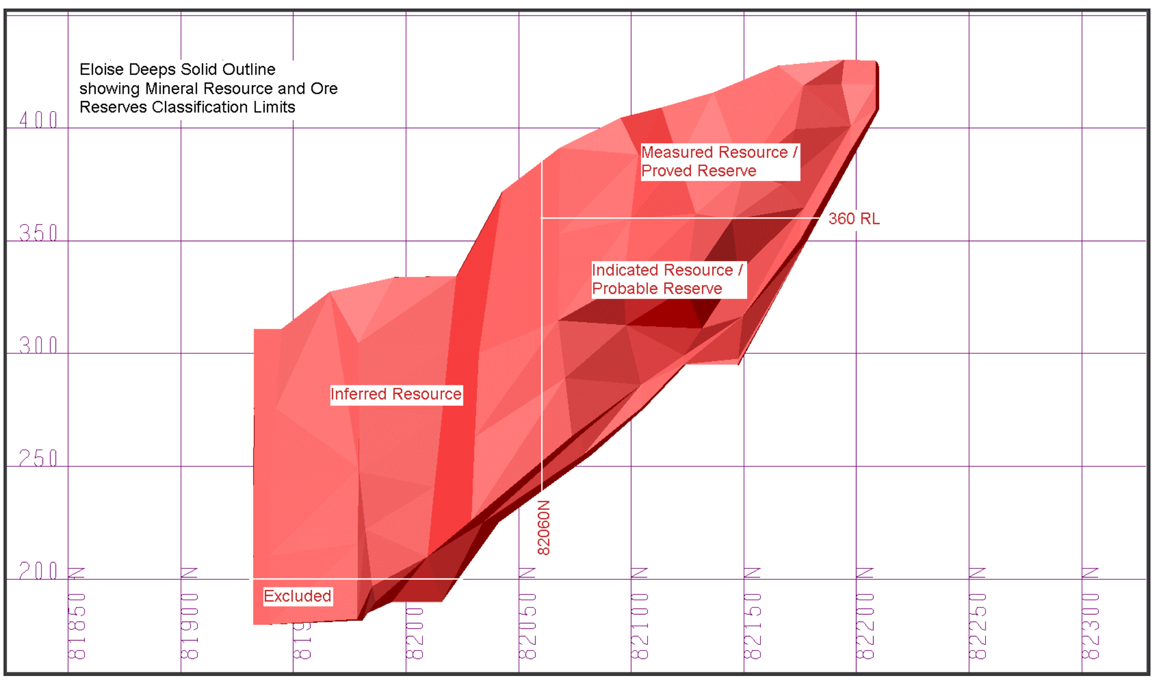

Figure 3.4 Eloise Deeps resource and ore reserve classification

Breakaway has recently conducted a review of its ore reserves with particular consideration given to depletion since June 2003, development exposures, mining factors and mine design. The mine design includes the planned loss of a substantial rib pillar located at 82100 mN containing a mineral resource of 164,000 t at 4.64 % Cu undiluted. At the end of January, the remaining ore reserve identified was estimated at 597,000 t at 4.01% Cu.

3.5 MINING

The Eloise orebodies are accessed by a 4.5 m wide by 5.0 m high Main Decline which has been developed from surface at a nominal grade of 1 in 8 (with 1 in 9 on the corners). The Main Decline continues as the Southern Decline from 728 mRL and currently (January 2004) extends to a depth of ~870 m (320 mRL) below the surface (1189 mRL), a one-way distance of 7,300 m from the ROM pad. The dimensions and gradient of the decline were changed at the 510 mRL to 5.0 m x 5.5 m and 1 in 7.

Uphole benching or long-hole stoping is employed at Eloise, a straightforward and economically low cost mining method. Sublevels are developed at 20 m vertical spacings with access cross-cuts driven off the decline at 5.0 m by 5.5 m to ventilation, and stockpile and truck loading bays, where dimensions are reduced to 4.5 m by 4.5 m for driving the final distance to the orebody centroid. Standoff distance between the orebody and the decline is about 50 m.

From the point where the access cross-cut enters the orebody, strike drives of 4.5 m by 4.5 m are driven along the contacts to the northern and southern extremities of the orebody. Twin strike drives are driven, along the hanging wall and footwall contacts, where a separation pillar of 7 m can be maintained. Where a 7 m pillar cannot be maintained, a single drive along the western contact is mined. The western or hangingwall contact is usually sharply defined with more persistent mineralization of economic grade over a greater strike length than the eastern or footwall contact. The southern extremities of the strike drive are usually defined by the Ramsay fault and its dip to the south, while the northern extent is usually defined by a grade drop off as the chalcopyrite content reduces in favour of pyrrhotite. The strike drives are advanced under geology control on a round by round basis.

Various stoping configurations have been employed, including using access cross-cuts located at the end of the orebody, single strike drives, fully silled sublevels, sublevel intervals of 25 m and centre access cross-cuts. End access cross-cuts were deemed by Breakaway to provide too few production points, requiring excessive waste development to locate, and being difficult to locate optimally with the drill spacings available. Single strike drives introduce a dilution risk with blastholes toeing into the footwall, hanging wall or both. Fully silled strike drives present safety risks in wide parts of the orebody, which can reach 25 m, and averages more than 12 m. Sublevel intervals of 25 m are believed to have contributed to blast induced crown and wall failures and high dilution levels.

Designs incorporating centre access cross-cuts have been a cause of past geotechnical problems at Eloise where it is believed that stress concentrations within the pillar led to failure. This configuration has been rejected previously but has been reinstituted consequent to the findings of a study conducted through the Western Australian School of Mines (WASM). The WASM study estimated the in-situ stress conditions and modeled the stoping layout to identify the minimum pillar dimensions necessary to maintain stability. The findings have been incorporated in the current design.

Stope design is effected by the mine geologist who provides a three dimensional digital terrain model (DTM) to the production mining engineer for use in drill and blast design. The DTM is prepared using model projections, information gathered from development exposures and sludge sampling results. The production engineer slices this model at the required ring burden distances for design of the blast rings.

Blastholes are drilled in uphole fans from the each strike drive with holes drilled parallel to and along the contacts where possible. A cut-off rise is mined by handheld methods at the orebody extremity and a slot developed with production upholes. Production blasting proceeds with firing off rings firstly from the extremities of the ore block and progressing back towards the access cross-cut. A 30 m pillar is left, with 15 m on either side of the access cross-cut centerline, to provide stability, keeping the opened stope strike length to less than 80 m.

A schematic representation of the mining sequence, including mining to the southern extent of currently Inferred Resources, is shown in Figure 3.5. The first stoping panel extends from 400 mRL to 300 mRL. The northern part, shown as segment 1 in Figure 3.5, will be stoped first in a top-down sequence and filled with development waste, providing a repository for all development waste to that time. The southern part, segment 2, will then be mined top-down, continuing down to the 200 mRL. The void will then be filled. Bottom-up recovery of the northern pillar, segment 3, will follow, leaving 5 m pillar skins against the fill masses, though this material is not included in project reserves. If reserves are confirmed to the south and at greater depth than those currently planned, another pillar will be left to enable stoping to continue as segments 4 and 5.

Given the past pillar and hangingwall failures, an ongoing program of geotechnical assessment is being undertaken using the consulting services of Douglas and Partners, Kevin Rosengren and Associates and WASM.

Split sets are used for development ground support, galvanised for the decline and access drives and “black” for the in-stope ore drives. The ore drives are routinely meshed or fibrecreted to provide skin support and to facilitate prompt re-entry after stope blasts. Cablebolts are used at most intersections, in regions of faulting and routinely to support the stope hangingwall and footwall.

Development and production drilling are achieved using Tamrock drilling equipment, with two rigs of each type available.

Mine production is hauled using a fleet of Toro and Elphinstone LHD machines and up to 6 Toro 50D trucks, of which 5 are required to be available to meet production targets. The current haul cycle takes about 1 hr 20 mins, with 7 loads per truck per 12 hour shift being achievable. An average truck factor of 37 t is achieved.

The working conditions at the bottom of the mine are approaching the practical limits of the existing ventilation system. Temperatures frequently approach the statutory limit of 34^{o} C wet bulb due to the geothermal gradient and pervasive ground water inflows which enter the workings at 50^{o} C. The mine ventilation is achieved with a single 3.5 m exhaust shaft drawing 160 m^3/sec down the main decline (100 m^3/sec) and an intake shaft (60 m^3/sec).

The system may be capable of larger flows in excess of 200 m^3/sec but is presently restricted to 160 m^3/sec due to deterioration of the shotcrete lining through the surface cover zone. Previously, higher flows have caused material to be drawn by high velocities into the surface fans, leading to catastrophic blade damage. Higher flows may have also contributed to fan damage as the pressure limits of the system were approached. The mine has a plan to reshotcrete the deteriorated zone early in 2004 enabling an increased air volume to be exhausted.

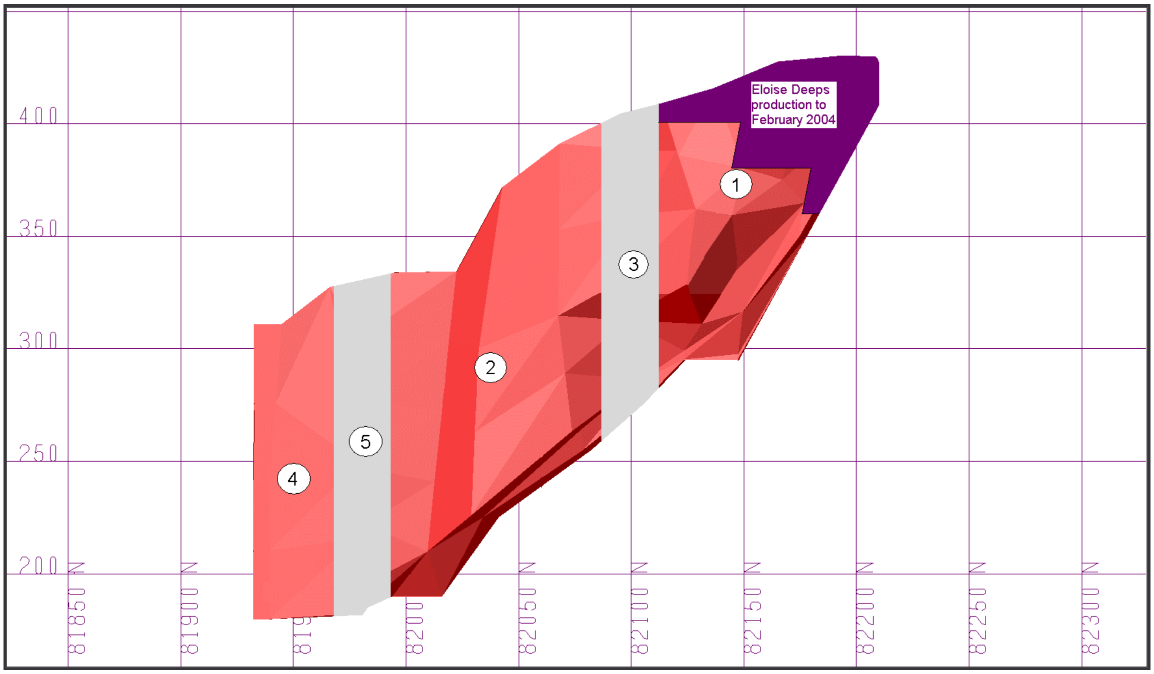

Figure 3.5 Longitudinal view of Eloise Deeps mining sequence

The intake shaft had a 400 kw surface refrigeration plant commissioned during January 2004 to cool the intake shaft air. This has provided some temperature relief in working areas but is by no means the definitive long term solution to deeper mining. A long term plan is being developed which is likely to require a new exhaust raise to be installed if mine life is to be extended significantly.

Mine dewatering is achieved through the use of helical rotor pumps in pump stations located at the 535 mRL and 728 mRL levels. The pumping requirement was 30 l/sec early in the project life and seems to be dropping off with depth. The June 2003 requirement was 25.0 l/sec and the December 2003 requirement was 23.3 l/sec. The reduction is attributed by Breakaway staff to dewatering of water bearing faults in the upper part of the mine. No significant wet season recharge is recognised by Breakaway staff.

At the time of review, decline development was approaching the 320 mRL, the 340 mRL horizon was approaching being fully developed and the 360 mRL and 380 mRL stoping levels were fully developed. The 380 mRL was fully drilled out and approximately 50% of the reserves north of the rib pillar remained. The 360 mRL was virtually drilled out and blasting of the northern reserves had commenced. Developed mining stocks stood at 428 kt containing 4.19% Cu, equivalent to about 8 months production. About 150 kt containing 4.06 % Cu, equivalent to 3 months production, was drilled out ready for production. Though not all these stocks are planned as immediate production sources, these inventories represent considerable improvement over previous reviews which cited developed stocks as less than 3 months with a likely reduction to below 1 month.

Mining operations are carried out under contract by Barminco. Operations commenced with contractor Eroc (formerly Peabody) and continued until February 2002 when Barminco was appointed. Barminco operated under a schedule of rates contract until December 2002 when a new contract based on a cost plus format was established.

3.6 MILL / PROCESSING PLANT

The Eloise processing plant was constructed from second-hand equipment. The mill plant steel framework was the only new material used in construction, although the current crushing plant was bought second-hand but unused.

The "clean" nature of the mineralisation and the operation of a simple flowsheet, using conventional, yet dated equipment, provides for a stable process. The plant requires standard reagents needing no exotic additives.

The crushing system is two stage operating at 100-120 t/h producing a –12mm product. Ore trucked from underground is dumped onto the crusher ore pad in individual stockpiles according to source. Crushed fine ore may be fed to either the fine ore bin or a fine ore stockpile, using a slewing conveyor. From the fine ore bin, the crushed ore is discharged onto the mill feed conveyor. The fine ore stockpile is reclaimed by front end loader and fed onto the fine ore conveyor after the fine ore bin as required.

The discharge from Mill #1 is pumped to a cluster of 6 x 10 inch cyclones, with half the underflow being pumped back to Mill #1, and the other half to a regrind ball Mill #3. Mill #3 operates in closed circuit with 4 × 250 mm 10 degree cyclones, with the underflow fed back into Mill #3. The overflow from both banks of cyclones is pumped to the flotation circuit. Grinding of the ore is to a 60 to 70% passing size of 75 micron.

The flotation circuit comprises a bank of 3 × 16 m^3 Outokumpu ("OK") rougher cells and two similar cells as scavengers. The first two rougher cells produce about 90% of final concentrate product at about 29% Cu, which is sent directly to the thickener. Concentrate from the third rougher cell typically grades 15% to 20% Cu and is sent to a bank of 3m^3 OK re-cleaner cells for further concentration.

The scavenger concentrate is sent to a bank of 3m^3 OK cleaner cells where entrained pyrrhotite is removed, before the remaining concentrate is pumped to the re-cleaner cells along with the concentrate from the third rougher cell. From the re-cleaner cells the resulting 25 to 29 per cent copper concentrate is sent to the thickener.

A bank of Agitair cells is available for placement in circuit whenever required such as during repair and maintenance of any of the other flotation cells.

The thickener is a 9.0 m diameter Larox Supaflo unit, which operates at an underflow density of between 65 and 80% solids. Generally, no flocculants are required during thickening due to the fast settling nature of the concentrate. The thickened concentrate is sent to two of three 6 feet (~1.8 m) diameter American disc filters which produce a 13% moisture filter cake.

Concentrate grades and copper recoveries are maximised with the assistance of a process control monitoring system, Outokumpu's "Cimplicity" using a Courier AP30 On Stream Analyser (OSA), which provides instantaneous copper assays on six (6) process streams. There is no automated process control. Recovery of copper to concentrate routinely exceeds 95%.

An on-site laboratory is used to assay 12 hour shift samples from the mill (cyclone overflow, concentrates produced and flotation tailings), truck samples and train samples. An Amdel Programmable Mineral Analyser (PMA) is used to give an indication of the amount of copper present in the concentrate and tails samples. A weekly composite is sent to Analabs as a check on the accuracy of the PMA. The moisture content for the concentrates is analysed using drying ovens and scales.

About 60% of the process water used is recycled from the tailings dam. The remainder is sourced from the underground water pumped to a surface storage dam. Excess water from this dam is supplied to Elrose station for the benefit of the station, which uses it to flood irrigate grass crops for stock feed.

The borefield originally built for the mine has not been used. The boreholes are lined, but there is no pumping equipment or pipeline back to the mine site.

Power is generated on site under contract using 7 diesel sets, 2 of 1.4 MW capacity and 5 of 1.0 MW capacity. Normal loading is about 4.2 MW, requiring 5 sets to be running.

3.7 CONCENTRATE HANDLING & SHIPPING

The concentrate is produced at a moisture content of ~13 %, which is above the Transport Moisture Limit of 8.4% required for shipping.

Concentrate is stored on a concrete pad in the open air and regularly turned over for sun drying to a typical 9% moisture content before transporting by truck to Cloncurry. The concentrate is then railed to Townsville for loading into bulk vessels for export.

The high moisture content in the concentrate post filters is a function of the hyperbaric disc filters being used. The American filters are circa 1930 vintage and were sourced from the Broken Hill field. A generally acceptable level of performance and availability is maintained by fabricating spare parts on site or locally by contractor.

The 2003/04 Budget concentrate quality is 29.40 % Copper, 5 g/t gold and 90g/t silver.

Concentrates are transported by road to Cloncurry in 70 tonne loads and railed to Townsville for storage at the Xstrata loading facility prior to loading into bulk ships for shipping to Glencore under the current life of mine offtake agreement.

Moisture content is typically 7 to 8 per cent at the shipping point.

3.8 ENVIRONMENTAL MANAGEMENT, ISSUES AND REHABILITATION

3.8.1 Environmental Management

The management and state of environmental issues at Eloise was previously documented by Snowden in December 2002.

Three significant events have occurred since that time, being:

- the granting of ML 90155 in November 2003;
- the installation of fencing around the concentrate drying pad to reduce the incidence of wind-blown concentrate loss; and
- the raising of the wall of Tailings Dam Cell # 3 during 2003. Breakaway expects this wall raising to provide tailings storage capacity at budget production rates to the end of 2006.

These actions have been taken as risk management and business sustaining measures and have introduced no significant change to the environmental management aspects of the Eloise site. It is believed that the comments made in Snowden's December 2002 report relating to the principal environmental and heritage issues essentially remain valid.

As noted in the previous review by Snowden:

- *"To date there has been no issue with acid mine drainage. Acid generation from pyrrhotite oxidation is claimed to be buffered by the calcite in the ore that reports to the tailings. The calcite provides a natural buffer and acid neutralising agent, such that acid water is not generated by the oxidation of sulphides in the tailings.*

  A series of groundwater monitoring bores located around the dams have not recorded any evidence of acid leaching into the groundwater environment"; and

- *"Principal environment and heritage issues and their status are as follows:*

  - *Analysis of water samples collected from monitoring bores in the vicinity of the tailings dam suggests that there have been no significant leaks from the dam and that it is being maintained in compliance with the licence issued for it under the Water Resources Act.*
  - *Creek water sampling has indicated that surface waters have been collecting copper as they drain from the project site into the creek system, although copper levels have remained within guideline levels for the protection of aquatic ecosystems. In January 1999, bunds and further sediment traps were constructed around the concentrate drying pad.*
  - *Waste characterisation studies have indicated that the occurrence of acid forming materials is minimal, and that there is minimal risk of encountering acid forming materials in future excavations. Leachate around the waste rock dump has been periodically sampled and determined for pH (acidity), however, there are no signs of acid mine drainage and pH averages 7.5, which is slightly alkaline. Should any materials be identified as potentially acid forming, they will be disposed of underground.*
  - *A Waste Management Plan consistent with National and State policies has been developed so as to reduce potential health and environmental hazards posed by waste generation and disposal. Disposal of wastes is only to be considered where no other option for re-use or retreatment is available. In particular:*
    - *All process water is recycled from the tailings dam.*
    - *All waste oils are collected from site by a registered waste disposal company.*
    - *Used tyres are kept in a designated area and are periodically removed from site for recycling.*
    - *Used batteries and scrap steel are sold to recycling dealers.*
    - *Material which is hazardous, but non-acid producing, is buried underground or is disposed of in the tailings dam and covered to a depth of at least 1 metre.*
    - *Putrescible waste is placed in purpose built landfill sites.*
    - *Sewage is treated on site, with treated water pumped to evaporation ponds.*
  - *An inventory of hazardous materials is maintained on site, along with Material Safety Data Sheets outlining the proper usages, disposal and safety procedures specific to each material.*
  - *The project is largely located underground and the nearest habitation is 6 kilometres away. No noise or dust complaints have been received to date, as would be expected.*
  - *An archaeological study was completed in 1995 which indicated:*
    - *Extensive, but low intensity lithic artefact scatter.*

- *No sites of significance.*
- *Likely causal use only of the area by Aboriginal people due a lack of any major drainage system within the site, and a lack of diversity of flora and fauna.*
- *No particular significance is attached to the site by its traditional owners."*

3.8.2 Rehabilitation Costs on Closure

Breakaway's 2003 Plan of Operations included a Rehabilitation Program and Financial Assurance Report prepared by AustralAsian Resource Consultants P/L (AARC). The Report estimated the total cost to rehabilitate the maximum area disturbed during the term of the Plan of Operations and included an allowance for maintenance, monitoring and project management. The cost estimates were based on types of disturbance, the area affected by each and unit costs for remediation. AARC state that its cost estimates were calculated in accordance with Guideline 17 – Financial Assurance for Mining Activities (QEPA, December 2000) and are 'based upon consideration of known contractors' rates and are believed to be realistic'.

The total rehabilitation cost estimate was $680,834 and is substantially in excess of the previous estimate of $246,531 taken from the 1999 Plan of Operations. A Financial Assurance of $612,751 is recommended by AARC. These costs are considered by Snowden to be underestimated and may be adequate to provide for direct environmental rehabilitation activities only.

Snowden's previous estimate of rehabilitation costs was $3 M, which was based on an assessment of total costs required for site demobilisation and environmental rehabilitation. This estimate is believed to be adequate to provide for all direct and indirect costs. There has been no material change to the site situation to justify a decrease in this estimate and so it remains Snowden's preferred cost estimate.

3.9 RECENT MINE PERFORMANCE

Recent mine operating performance has been reviewed to identify significant trends for consideration in preparing Snowden's life of mine valuation, and is summarised in Table 3.5.

Table 3.5
Recent operating performance

		2002/03	2003/04 H1	July 03	Aug 03	Sept 03	Oct 03	Nov 03	Dec 03
Ore Mined wmt	Budget	563,100	312,800	52,700	52,700	51,000	52,700	51,000	52,700
	Actual	566,652	234,438	46,807	41,480	32,370	34,396	37,197	39,429
Copper grade %	Budget	3.84	4.00	3.90	3.89	4.03	4.08	4.16	3.98
	Actual	3.85	3.29	3.52	3.05	3.34	3.38	3.51	2.88
Concentrate produced dmt	Budget	68,271	39,489	6,477	6,460	6,473	6,774	6,682	6,623
	Actual	68,215	23,771	5,158	3,872	3,510	3,532	4,353	3,346
Concentrate copper grade %	Budget	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40
	Actual	29.71	29.60	29.50	29.90	29.60	29.50	29.62	29.54
Concentrate gold grade g/t	Budget	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Actual	4.29	4.06	3.95	3.70	4.20	4.20	3.80	4.97
Concentrate silver grade g/t	Budget	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
	Actual	94.90	83.06	92.00	86.00	83.00	83.00	73.00	80.00
Recovery of copper to concentrate %	Budget	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00
	Actual	95.43	95.30	95.38	95.19	96.09	95.17	95.11	95.76
Recovery of gold to concentrate %	Budget	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00
	Actual	54.70	47.86	48.91	39.38	51.00	47.47	51.76	61.72
Recovery of silver to concentrate %	Budget	71.50	75.00	75.00	75.00	75.00	75.00	75.00	75.00
	Actual	81.40	82.30	90.65	82.58	82.50	82.48	73.24	84.98

For the first half of 2003/04, mining performance has been poor when compared to Budget. Breakaway attributes the production shortfall to a number of contributory factors including:

- inflexibility and low availability of ore sources as the transition from production from Levuka South to Eloise Deeps was undertaken;
- fall-off from the Ramsay fault into the Eloise Deeps 400 mRL stope with oversize dilution creating difficult drawpoint conditions;
- poor contractor performance due to low labour and equipment availability, performance and productivity; and
- difficult working conditions being encountered with ventilation and haulage systems approaching their practical limits.

Mined grade has been below budget during the first half of 2003/04, averaging 83% of budget and falling to 72% of budget during December. The shortfall in grade is mainly attributed by Breakaway to the presence of excessive dilution, particularly from the Ramsay fault and possibly from wall dilution. There may also be some contribution from an overstatement of grade in the resource estimate. Available reconciliation information is limited in its ability to provide an analysis of contributory factors because stope surveys are not routinely carried out and a rigorous mine based production claim is not routinely prepared.

Metallurgical performance has been close to budget. The only significant issues are concerned with gold recovery and the grade of gold in concentrate. Breakaway attributes the recent declining performance to losses of fine gold entrained in carbonate components of the ore. The current level of performance is expected to continue.

Site costs have a high fixed component with at least 25% of site costs being non-mining related fixed costs. About 50% of site costs are mining related and are substantially fixed under the current cost-plus contractual arrangements. Therefore, of the total site costs, approximately 75% are effectively fixed. The unit cost of production is consequently heavily leveraged to production. Recent cost performance as reported by Breakaway is summarised in Table 3.6. In recent times, the operation has been marginally cash positive.

Table 3.6
Recent cost performance

		March 2003 Quarter	June 2003 Quarter	September 2003 Quarter	December 2003 Quarter
Copper in concentrate	tonnes	5,129	4,673	3,716	3,317
Operating cost	$US/lb Cu eq	0.63	0.79	0.90	0.99
Total cost	$US/lb Cu eq	0.69	0.85	0.96	1.28

3.10 OPERATIONAL OUTLOOK AND RISKS

The mine is continuing to develop Eloise Deeps. Decline development is approaching the 320 mRL, ore development is nearly complete on the 340 mRL and production is being drawn from the 360 mRL and 380 mRL stopes. There are about 8 months of stocks developed with about 3 months of stocks drilled out. This is a positive situation compared to Snowden's previous review which had estimated developed stocks at less than 3 months, and likely to be less than 1 month.

With hangingwall and footwall drill drives developed on each level, there is a greater availability of ore sources than previously, providing an increased opportunity to achieve budget production levels. A significant proportion of the dilutent oversize that fell from the back of the 400 mRL stope has been removed and drawpoint productivities are reported to be improving. Breakaway reports improving head grades during January 2004 as the dilutent material continues to be drawn and is reducing in proportion to freshly blasted ore.

The mining contractor has committed to mobilising 3 new Elphinstone AD55 ADTs to Eloise. Truck factors approaching 50 t should be regularly achievable; being about 35% higher than those achieved with the current fleet of Toro 50D ADTs. The AD55s also have a tramming speed advantage over the 50Ds.

New pumping facilities have recently been commissioned with a previously unreliable pump station on the 905 mRL now bypassed.

A refrigerative air cooler has been commissioned on surface providing some cooling of intake air. Plans are being developed to repair the lining of the exhaust air shaft to enable an increase in flows to be achieved. The installation of a new exhaust shaft is also being considered.

Although the immediate future is likely to provide operational improvement over the recent past, there remain some risks with the ongoing operation.

The mine has a history of suffering from excessive dilution and ore loss caused by geotechnical instability. There have been reported instances of crown pillar failure, access pillar failure, stope wall fall-off, fall-off around faults, sill drive failure and ore loss and dilution associated with fault dislocations. The mining method can result in cascading dilution to lower levels so that single dilution events can lead to negative impacts over a sustained period. Mine management has initiated a reinvigorated geotechnical program aimed at finding solutions to the geotechnical problems previously experienced. There remains a risk that successful solutions will not be identified or implemented.

The mine is currently operating at a depth which is generally considered excessive for efficient truck haulage. This situation has been reached incrementally as small parcels of additional reserves have been progressively identified. Therefore, costs and operational inefficiencies have been unavoidably increasing. There is some risk that operational inefficiencies inherent in hauling from such depths will prevent an economic rate of production being achieved, despite the introduction of increased capacity equipment. A detailed assessment should be made of the economic maximum depth of haulage so appropriate and informed mine and strategic planning can be undertaken.

The nature of the orebody is such that the cut-off grade has traditionally been defined by geological features, with a 2% Cu grade being a "natural cut-off", rather than an economic cut-off. Material at the 2% Cu cut-off grade and above may be uneconomic leading to a reduction in operational viability. An assessment should be made of the economic cut-off grade so that it can be considered in determining future mining plans. Alternative resource estimation methods, including geostatistical, simulation and probabilistic approaches, should be considered to provide an improved assessment of the resource. This could create an opportunity to take a value rather than volume driven approach to future mining.

Mine contractor performance and costs remain a risk. The current cost-plus contract does not provide a performance or cost efficiency incentive. The cost plus contract establishes what is virtually a fixed operational cost regardless of production performance, making the unit cost of production heavily leveraged to production results. Consequently, underachievement of production can rapidly result in unprofitable operations, as has been witnessed recently.

Although refrigerative cooling of part of the mine intake airflow and repairs to the exhaust shaft will enable an increase to primary airflows, there is a risk that acceptable workplace conditions will not be able to be sustained without a major capital upgrade, which may make further operations uneconomic. Breakaway has commissioned a specialist consultant to review the mine ventilation system and identify needs to enable implementation of the life of mine plan.

Proved and Probable Reserves currently stand at about 1 year's production. The current life of mine plan draws additional mining inventory from Inferred Resources and material expected to be identified as resource during future delineation drilling programs. There is some risk that material currently classified as Inferred Resource will fail to convert to reserve at the quantity or quality assumed in life of mine plans. There is a similar risk that material yet to be identified as Inferred Resource will fail to be identified in quantity or quality to provide adequate reserves. Although there are no geological indications that conversion will underperform expectations, the current lack of sample data mandates a low level of confidence in the estimated mining inventory drawn from those areas.

3.11 LIFE OF MINE PLAN

The current life of mine mining working plan, prepared in November 2003, was provided by Breakaway and is summarised in Table 3.7. From this schedule it can be seen that the stoping to the 200 mRL is completed in June 2006, providing 2.5 years of mine life remaining from January 2004.

Table 3.7
Life of mine schedule

	Calendar year	2004		2005		2006	Total
	Fiscal year	2003/04	2004/05		2005/06		
Item	Half year	H2 2003/04	H1 2004/05	H2 2004/05	H1 2005/06	H2 2005/06	
Mined ore (wet)	t	286,667	294,438	294,842	294,000	294,000	1,463,946
Grade	% Cu	3.85	3.85	3.85	3.85	3.85	3.85

The life of mine plan was prepared using the June 2003 resource and assumes extraction of the central access pillar. The life of mine plan assumes the lowest production level is 200 mRL. It relies heavily on the anticipated conversion of resources to reserves as development exposures and further drilling increases confidence in the resource. Of the 1.42 Mt remaining to be mined in the life of mine plan at the end of January 2004, 0.83 Mt comes from resources not currently included in reserves, including 0.67 Mt which is classified as Inferred Resource.

An average of 7,300 tonnes per vertical metre (tpvm) below 400 mRL is required to achieve the life of mine plan. The mining inventory by sublevel including material from Inferred Resource is shown in Table 3.8.

Table 3.8
Tonnes per vertical metre by sublevel interval

RL interval	tpvm
380- 400	Substantially depleted
360 – 380	6,956
340 – 360	8,857
320 – 340	9,873
300 – 320	10,724
280 – 300	9,875^{+}
260 – 280	9,038^{+}
240 – 260	7,563^{+}
220 – 240	5,475^{+}
200 - 220	3,619^{+}

+ Truncated at 81930 mN by boundary of Inferred Resource

A stoping vertical advance rate of 80 m per year is required, which is in the medium to high range of vertical advance rates required for operations of this type. Given that decline development is in advance of production and approaching the 320 mRL, the requirement is somewhat less demanding than if starting from a zero decline advance position. On this basis, the vertical advance required by the plan is not seen as inherently prohibitive.

The biggest risks to meeting the operating plan are dilution and ore loss, production capacity, ventilation capacity and the risk in the mining inventory. Of note is Breakaway's use of an averaged grade for the remaining mine life. This grade is the average for the remaining mining inventory but does not reflect the expected variability within the mineralised body. A refinement and improvement to the model would be gained by using real grade estimates where possible in preference to the average.

The cost model associated with the life of mine working plan was reviewed. The cost model is built up using a combination of zero based fixed and variable costs, estimated variable costs and estimated fixed costs. The most significant contributor to site costs is mining contractor costs which represent about 50% of total costs. These costs are based on the contractor schedule of rates, which were in place prior to the cost plus contract being established, applied to a comprehensive and detailed life of mine development and production schedule. A provision for dayworks costs has been included. This provides a more realistic estimate of costs than by using a cost plus contract based estimate, and is a more likely contract format for operations going forward.

Overall, the cost model is comprehensive and detailed at the expense type level and appears to represent an accurate depiction of expected site costs attributable to the production schedule.

The cost model, which is summarised in Table 3.9, shows a drop off in unit costs towards the end of the mine life as site capital expenditure and mine development quantities reduce.

Table 3.9
Life of mine costs

	Calendar year	2003	2004		2005		2006
	Fiscal year	2003/04		2004/05		2005/06	
Item	Half year	H1 2003/04	H2 2003/04	H1 2004/05	H2 2004/05	H1 2005/06	H2 2005/06
Mined ore (wet)	t	234,438*	286,667	294,438	294,842	294,000	294,000
Cu produced (in concentrate)	t	7,012*	10,224	10,501	10,516	10,486	10,486
Site total costs	$ M	23.40+	22.32	21.76	20.43	18.09	17.31
Site operating costs#	$ M	18.40	21.86	21.73	21.40	18.07	17.28
Total unit cost of ore	$/t	99.81	77.86	73.90	69.29	61.53	58.88
Total unit cost of Cu	$/t	3,319	2,183	2,072	1,943	1,725	1,651

* Actual performance
+ Estimate contained in life of mine model
# Operating costs include all mine development

3.12 EVALUATION OF MINING SCHEDULE AND CASHFLOW ANALYSIS

Three possible operational scenarios were identified for evaluation.

The first scenario is represented by the current Breakaway life of mine model with modifications to reflect more likely outcomes for dilution and productivity. Mining activity ceases at 200 mRL and is constrained by the current southern boundary of the Inferred Resource. This becomes the Preferred Case for valuation.

The second scenario represents extending mining to 0 mRL by assuming a continuation of the Eloise Deeps lode to that depth with a mining inventory of 7,500 tpvm at a diluted grade of 3.47% Cu for material not currently included in ore reserves or mineral resources. This becomes the High Case for valuation.

The third scenario represents the cessation of mining at 300 mRL mining material from reserves only. This becomes the Low Case for valuation.

Preferred Case

The Breakaway life of mine model with some modification forms the basis of the Preferred Case. The life of mine model assumes resource dilution of 10 %, dilution added at a nominal 0.9 % Cu grade and a subsequent 5 % ore loss factor applied. In view of operational history, it is considered prudent to provide for additional dilution and ore loss to reflect the possibility that problems with dilution and oversize from fault and stope walls continue, and that problems will have a cascading effect into future activities. The Preferred Case has an additional 10 % dilution at 0% Cu and 10 % subsequent ore loss applied. A total of 1.46 Mt at 3.48% Cu is mined until June 2006 under the Preferred Case.

The life of mine plan assumes a sustained mining rate of 49.0 kt per month from July 2004 after a build up from 47.7 kt in January 2004. This rate exceeds any previously sustained mining rate. In particular, the mining rates achieved during 2002/03 averaged 47.2 kt per month, and first six months of production from Eloise Deeps averaged 39.1 kt per month. Although there are some positive indicators for production going forward, as discussed in Section 3.10, some fundamental aspects of productive capacity including haul distance and depth, ventilation and ground stresses will unavoidably increase the difficulty of achieving production targets. For the Preferred Case, a base production rate 5 % lower than that provided for in the life of mine model will be adopted, being an average 46.6 kt per month. The sensitivity of the valuation to production rate will also be tested.

A key assumption in the Preferred Case valuation is the need to provide an upgrade to the current mine ventilation system to sustain production until the 200 mRL is mined out. Repairs to the lining of the weathered horizon in the exhaust shaft are assumed necessary to maintain production until a new exhaust shaft and fan are installed. The new exhaust shaft from the surface to the 400 mRL is installed during the second half of 2004. A review of future ventilation needs is currently underway and is expected to confirm the need this approach.

Key Preferred Case metallurgical performance factors are:

- Copper recovery – 95%;
- Copper % in concentrate – 29.5%;
- Gold in concentrate – 4.18 g/t; and
- Silver in concentrate – 83 g/t.

The Preferred Case takes into consideration mined ore and concentrate stocks as declared by Breakaway at 31 December 2003.

Haulage and treatment charges terms of the concentrate offtake agreement (including treatment and refining charges and penalties) and state royalties have been reviewed and adopted in the Preferred Case life of mine plan.

The costs of operation for use in the Preferred Case are generally those presented in the life of mine plan with some modification to more accurately reflect camp manning levels, mining salaries, mining contractor dayworks costs, increasing power usage with depth, ongoing underground exploration drilling, pumping system extensions and ventilation shaft repairs. A major capital expense of $5 M is included for the new exhaust shaft and fan. Closure costs include a rehabilitation provision of $3 M and a salvage value of plant of $1 M, which are consistent with Snowden's previous valuation, and liability for personnel entitlements at closure of $0.262 M as advised by Breakaway.

On advice from Grant Thornton Corporate Services, Snowden's cashflow model has assumed tax will not be payable in the cashflow scenarios under consideration.

The metal prices and exchange rates used in the Preferred Case have been determined by reviewing industry consensus estimates and the discount rate applied is consistent with the range of rates recently applied by Snowden in a number of other operational valuations pursuant to advice received from financial groups who are authoritative in this regard. These are as follows:

- Copper price - $US 2200/t;
- Gold price - $US 370/oz;
- Silver price - $US 5.00/oz;
- $A/$US exchange rate – 0.75;
- Real discount rate for NPV calculation – 9%; and
- Inflation rate – 0%

By incorporating these considerations into a cashflow model, the Preferred Case provides a free cashflow of $13.62 M and a net present value (NPV) of $11.08 M.

Sensitivities of the Preferred Case valuation to variations in critical factors were determined by considering:

- Grade (+/- 10 %);
- Production rate (+/- 10%);
- Discount rate (7 %, 8 %, 10 %);
- Copper price ($US) (+/- 10 %, +/- 20 %);
- $A/$US exchange rate (+/- 10 %, +/- 20 %); and
- Revenue (sympathetic movement of Copper price and $A/$US exchange rate 5%, 10 % favourable/unfavourable)

The results of the sensitivity analysis are shown in Table 3.10 and in Figure 3.6. This analysis shows that the Preferred Case cashflow is particularly sensitive to the ore grade, the copper price and the A$/US$ exchange rate. The NPV result is also highly sensitive to production rate.

High Case

The High Case was modelled as an expanded Preferred Case including additional mineralisation which may be discovered as down-dip extensions to the current Inferred Resource. The High Case provides for the mining of 3.21 Mt at 3.48 % Cu with mining being completed in September 2009. The High Case has a mining inventory of 1.75 Mt in excess of that identified in the Preferred Case. It is assumed this material will be identified by drilling as a continuation at depth and to the south of the existing Inferred Resource, at a tonnage yield of 7,500 tpvm which is 80% of that identified for the zone between the 240 mRL and the 360 mRL. The grade is assumed to be consistent with that of the Inferred Resource material included as part of the Preferred Case life of mine, at a diluted grade of 3.47 % Cu. This outcome is not considered to be an unrealistic expectation.

Table 3.10
Preferred Case sensitivities

Item	Movement	Free cashflow ($ M)	NPV ($ M)
Base Case		13.62	11.08
Grade	+ 10 %	26.36	21.97
	- 10 %	0.87	0.20
Production rate	+ 10 %	24.79	20.34
	- 10 %	2.45	1.85
Discount rate	- 22 %	13.62	11.58
	- 11 %	13.62	11.33
	+ 11 %	13.62	10.84
Copper price $US	+ 10 %	26.93	22.45
	- 10 %	031	(0.29)
	+ 20 %	40.24	33.83
	- 20 %	(13.00)	(11.66)
Exchange rate	+ 10 %	2.39	1.49
	- 10 %	27.34	22.81
	+ 20 %	(6.96)	(6.51)
	- 20 %	44.49	37.46
Copper price $US Exchange rate	- 5 % / + 5 %	1.40	0.64
	- 10 % / + 10 %	(9.71)	(8.85)
	+ 5 % / - 5 %	27.12	22.62
	+ 10 % / - 10 %	42.13	35.44

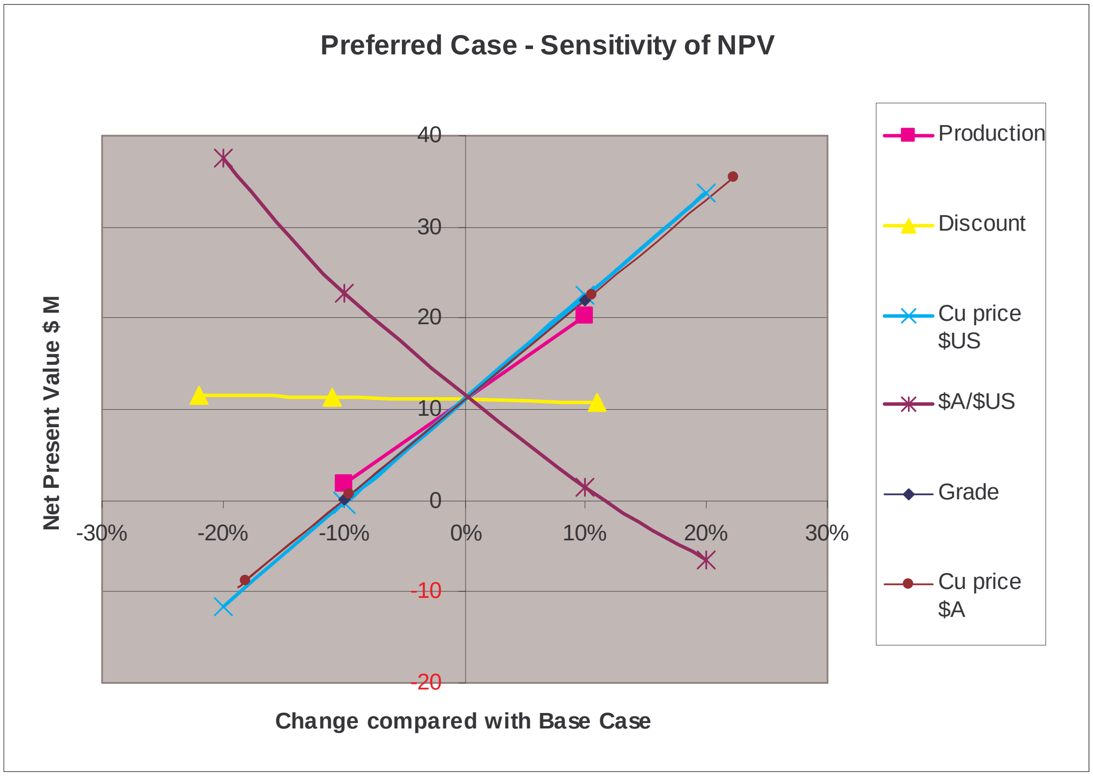

Figure 3.6 Preferred case sensitivities

The operational, cost, metallurgical and economic characteristics of the High Case are consistent with those of the Preferred Case, modified to reflect additional timing and capital requirements.

Capital considerations include:

- replicating exploration drilling activity annually to ensure adequate discovery of resources and conversion rates from resource to reserve are maintained;
- replication of pumping facilities at 300 mRL at a cost of $0.15 M;
- the conversion of the existing exhaust raise to 670 mRL to hoisting configuration, utilising pre-existing and second hand equipment at a provisional cost of $5 M;
- modifying haulage costs to reflect shaft hoisting from 670 mRL from Q2, 2005/06; and
- providing for a partial tailings dam lift at a cost of $0.30 M in 2005.

After incorporating these considerations, the High Case provides a free cashflow of $31.90 M and a NPV of $21.52 M. The High Case provides $18.28 M additional value in free cashflow compared to the Preferred Case, and $10.44 M in additional NPV.

The High Case carries with it risks associated with the continuation of the resource at depth and its future conversion to an ore reserve, increasing operating costs at depth, significant capital expenditure requirements and increasingly challenging ventilation demands. In particular, the risk is high, with 55% of the mining inventory yet to be identified as resource. The High Case result presented is a potential upside outcome dependant on substantial exploration success. Less successful exploration outcomes will see lower cashflows resulting, with the Preferred Case outcome representing a failure to identify any mineable extension to the currently defined resource.

Low Case

The Low Case was modelled as a truncated version of the Preferred Case with the limit of mining defined as 300 mRL which is below the base of mineralisation currently classified as Proved Ore Reserve, and above the limit of Probable Ore Reserves. It coincides with a change point in the decline and ventilation circuitry when a step change will be required to extend fresh and exhaust air circuits to the south. It also coincides with the horizon which can confidently be mined under the current ventilation regime, albeit with exhaust shaft lining repairs and a surface fan capacity increase.

The Low Case sees the mining of 0.53 Mt at a grade of 3.55 % Cu. Mining is completed in December 2004. Modelling considerations for the Low Case were to simply minimise operating and capital expenditure. The exhaust shaft repairs have been retained to enable operations to be undertaken through the early part of the 2004/05 wet season.

The Low Case provides a free cashflow of $6.97 M and a NPV $6.57 M and carries with it risks associated with high costs, diluted grades, deteriorating ventilation and poor haulage system performance.

Summary

The valuations determined represent a range of values for a given set of assumptions for three possible operating scenarios. Sensitivities have been determined for the Preferred Case and discussed previously. The Preferred, High and Low Case valuations are summarised in Table 3.11.

Table 3.11
Eloise mine valuation summary

	Net Present Value ($ M)
Preferred Case	11.08
High Case	21.52
Low Case	6.57

Snowden's opinion of the operational value of Breakaway's 100% interest in the Eloise mine therefore lies in the range of $6.57 M and $21.52 M with a preferred value of $11.08 M.

The key performance indicators from each of the valuation scenarios are summarised in Table 3.12.

In Snowden's opinion, the Preferred Case represents a production outcome which can be confidently achieved, subject to the successful management of the identified risks to production and costs associated with the plan. The most significant risks requiring management are:

- Geotechnical risk - where ongoing excessive dilution and ore loss pose a risk. Specification and implementation of the planned geotechnical management program is needed to effectively manage this risk.
- Haulage risk - where the existing fleet is approaching the limits of its productive capacity. The planned upgraded trucking fleet is needed to effectively manage this risk.
- Ventilation risk - where the current system is approaching the limit of its ability to adequately ventilate the workings. The planned exhaust shaft repairs and installation of a new exhaust shaft and fan should be adequate to manage this risk. This assumption is expected to be confirmed by the findings of an expert review currently underway.
- Resource risk - where 46% of the mining inventory is currently classified as Inferred Resource. The planned definition drilling program is needed to identify adequate quality and quantity of reserves to sustain the production plan and manage this risk.

- Costs risk - where 75% of the current site costs are essentially fixed so unit costs are heavily leveraged to production. The valuation models assume a schedule of rates mining contract is in place, which results in approximately 25% of site costs being fixed. Unit cost of production is therefore less sensitive to production levels.

Failure to successfully manage these risks will result in the Low Case being a more likely outcome.

Table 3.12
Valuation model key performance indicators

Case	Item	Year	2004	2005	2006	2007	2008	2009	2010	Total
Preferred	Mined	Mt (w)	0.56	0.56	0.35					1.46
	Cu Grade	%	3.51	3.47	3.47					3.48
	Payable Cu	kt	17.48	17.39	10.81					45.68
	Unit cost*	US$/lb	0.96	0.76	0.78					0.84
	Cashflow	A$ M	(0.50)	9.03	5.09					13.62
High	Mined	Mt (w)	0.56	0.56	0.56	0.56	0.56	0.41		3.21
	Cu Grade	%	3.51	3.52	3.47	3.47	3.47	3.47		3.48
	Payable Cu	kt	17.48	17.68	17.43	17.43	17.33	12.68		99.88
	Unit cost*	US$/lb	0.96	0.93	0.82	0.81	0.70	0.71		0.83
	Cashflow	A$ M	(0.50)	0.52	6.17	6.31	12.28	8.62	(1.50)	31.90
Low	Mined	Mt (w)	0.53							0.53
	Cu Grade	%	3.55							3.55
	Payable Cu	kt	17.00							17.00
	Unit cost*	US$/lb	0.76							0.81
	Cashflow	A$ M	9.23	(2.26)						6.97

* Unit cost includes operating, capital and closure costs

3.13 EXPLORATION POTENTIAL

In addition to the depth extension to the Eloise Deeps lode, which has been considered in Snowden's High Case cashflow model, the Eloise mine lease area also carries some potential for future exploration success. With the rationalization of tenements and the granting of ML 90155, the Eloise North West prospect becomes part of the assets being valued under this review. It is the only area within the mining leases apart from several other shallow lenses of ore-grade copper mineralisation sub-parallel to the main Eloise A and B lodes (40, 42 and 45 lodes) which has provided any indication of potential to date. Eloise North West is an area within ML90155 in which a small number of exploration holes have intersected low grade and low thickness copper mineralisation of subeconomic proportions. The intersections are believed to be contained in strike extensions of structures associated with the Levuka lodes. Downhole geophysical surveys have identified an anomaly below the drilled area which represents a target for further evaluation.

Further drilling is required to more accurately establish the tonnage potential of the 40, 42 and 45 lodes which have collectively been estimated to contain in the order of 120,000t. It is unlikely that these resources will form practical mining targets given their low tonnage and distance from the mine workings.

Snowden has not discounted the possibility for further strike repetitions of the main Eloise lodes within the mine lease area. Apart from Eloise North West, the presence of further lode repetitions has yet to be established with any degree of certainty from the limited exploration work completed to date.

Snowden's December 2002 valuation by the Kilburn Method estimated the value of the exploration potential in ML90064 to lie in the range of $0.29 M and $0.77 M with a preferred value of $0.53 M. Since that time, there has been no material change to this valuation opinion in terms of the exploration work completed outside of Eloise Deeps apart from an apparent lowering of the development potential of the 40, 42 and 45 lodes. Snowden has modified its valuation in recognition of the Eloise North West prospect now being contained within the recently granted ML90155, which forms part of the assets being considered in the current valuation. Snowden's opinion of the current market value of Breakaway's interest in the exploration potential of the Eloise mine leases is summarised in the following table:

Table 3.13
Eloise project – valuation of exploration potential

Lease	Area		BAC	Share	Off property		On property		Anomaly		Geology		Lower	Upper	Preferred
ML90064	241.7	ha	$26,829	100%	1	1.5	3	4	1.5	2	1.5	2	$217,300	$772,700	$495,000
ML 90155	205.6	ha	$22,822	100%	2.5	3.5	1.5	2	1.5	2	1.5	2	$231,100	$766,800	$499,000
												TOTAL:	**$448,400**	**$1,539,500**	**$994,000**

In Snowden's opinion, the market value of Breakaway's 100% interest in the exploration potential of the Eloise mine leases lies in the range of $0.45 M and $1.54 M with a preferred value of $0.99 M.

4.0 SUMMARY OF VALUATION

4.1 SUMMARY

In this report, Snowden has systematically established the market value of the Eloise copper project as at 31 December 2003. Snowden's opinion of the current market value of Breakaway's 100% interest in the Eloise copper project is summarised in Table 4.1.

Table 4.1
Eloise Copper Project – summary of valuation (A$ M)

	Low	**High**	**Preferred**
Operational Value	6.57	21.52	11.08
Exploration Potential	0.45	1.54	0.99
TOTAL:	**7.04**	**23.06**	**12.07**

5.0 DECLARATIONS BY SNOWDEN CORPORATE SERVICES PTY LTD

5.1 INDEPENDENCE

Snowden Corporate Services Pty Ltd is a wholly owned subsidiary of Snowden Mining Industry Consultants Pty Ltd, an independent firm of consultants providing a comprehensive range of specialist technical and financial services to the mining industry in Australia and overseas, through offices in Perth, Kalgoorlie, Brisbane, Johannesburg and Vancouver. Our services include technical audits, project reviews, valuations, independent expert reports, project management plans and corporate advice.

This report has been prepared independently and in accordance with the VALMIN Code of the AusIMM. The authors do not hold any interest in Breakaway, its associated parties, or in any of the mineral properties which are the subject of this report. Fees for the preparation of this report are being charged at Snowden's standard rates, whilst expenses are being reimbursed at cost. Payment of fees and expenses is in no way contingent upon the conclusions drawn in this report.

5.2 QUALIFICATIONS

The principal personnel responsible for the preparation and review of this report are Dr Philip Snowden (Principal Consultant and Managing Director), Mr Philip Retter (Manager Corporate Services), Mr Ian Glacken (Group Manager Resources) and Mr Peter Myers (Principal Mining Consultant) of Snowden's Perth and Brisbane offices.

Dr Philip Snowden (BSc (Hons), PhD, FAusIMM, CPGeo, MAIG) since graduating from the University of Rhodesia (London University) in 1971, has had 31 years experience in geology, mining and consulting. Experience includes completing a PhD in 1975, full-time lecturer in structural geology at Rhodes University in South Africa (to 1981), Divisional Structural Geologist for Anglo American's Gold and Uranium Division (to 1986) and 15 years as an independent geological consultant based in Perth, Australia. Dr Snowden is Managing Director of Snowden, a Fellow of the AusIMM and a Member of the AIG. Dr Snowden has undertaken numerous independent reviews and valuations of exploration and mining projects throughout Australia, Africa and SE Asia and has the appropriate relevant qualifications, experience and competence to be considered an "Expert" under the definitions provided in the VALMIN Code and a "Competent Person" as defined in the JORC Code.

Mr Philip Retter (BAppSc (Hons), MAIG) is a professional geologist with 19 years experience including 10 years mining and exploration experience in Australia and 7 years as an independent consultant based in Jakarta, Indonesia. Mr Retter joined Snowden in July 1996 as the General Manager of its Jakarta office and is currently the Manager of Snowden Corporate Services in Perth. He has been involved in numerous independent reviews and valuations of precious and base metal projects in Australia, Africa and Asia. Mr Retter is a Member of the Australian Institute of Geoscientists ("AIG") and has the appropriate relevant qualifications, experience and competence to be considered a "Competent Person" as defined in the JORC and VALMIN Code.

Mr Peter Myers (BEng (Min) (Hons), MAusIMM) is a mining engineer with 24 years experience in underground, open pit and dredge mining operations. He has held senior operational and technical roles including those with departmental and whole site management responsibility. He joined Snowden in 2003 and has since taken part in a number of technical reviews, audits and valuations. He has operational experience in copper, nickel, zinc, lead and mineral sands mines employing underground narrow, selective and bulk methods, hard rock open pit methods, and dry and dredge alluvial methods. He is a Member of the AusIMM and holds Mine Manager's Certificates of Competency issued in Queensland, Western Australia and Tasmania.

Mr Ian Glacken (BSc (Hons), MSc Mining Geology, MSc Geostatistics, Grad. Dip Computing, FAusIMM, MAIG, MIMM, MGAA, CEng, DIC, CPGeo) has over 20 years experience in the mining industry and worked with WMC Resources in senior mine geological and ore reserve positions at Kambalda, Olympic Dam and in Perth, working and consulting on resource projects worldwide. Ian joined Snowden in March 1998 and has specialist skills which include project management, resource estimation, due diligence and auditing, conditional simulation, sampling theory and applications, and reconciliation studies.