# **SNºWDEN**

# Final

Moncoa Corporation: Package of 3 Reports Project No. 5174

> NI43-101 January 2007

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# Final

Moncoa Corporation: Selinsing Gold Mining Project, Malaysia Project No. **5174** 

> NI43-101 Technical Report June 2006

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Issued by: **Perth** Office Doc Ref: 060626\_Final\_5174\_Selinsing\_Technical Report\_Au\_r.doc

Print Date: 19 January 2007

Number of copies Snowden: 1 Moncoa Corporation: 2

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### 1 Summary

Moncoa Corporation (Moncoa) engaged Snowden Mining Industry Consultants (Snowden) to prepare a Technical Report on the status of the Selinsing Project, Pahang State, Malaysia in accordance with the requirements of Canadian National Instrument (NI) Form 43-101F. The project is at an advanced stage of exploration and is not yet considered a development or production property.

The Selinsing deposit occurs along the north striking Raub Bentong Suture, a major tectonic feature that runs through peninsular Malaysia. The deposit is hosted by a series of auriferous quartz veins and stockworks of quartz veinlets in a sheared package of calcareous epiclastic sediments.

The area surround Selinsing has a rich endowment of gold mineralisation with two nearby mines, Raub and Penjom, both having production and resources of over one million ounces, indicating the regional potential of the Raub Bentong Suture. Mining at Selinsing commenced prior to 1888 and has operated intermittently through to 1996. Underground and open cut mining, together with tailings treatment, has produced approximately 85,000 ounces of gold during this period. Current tailings treatment using heap leach extraction has produced over 1,000 ounces per annum since 2003.

Target Resources Australia NL (TRA) reported historical resource estimates for the Selinsing Project in 1997 and 1998 in accordance with the Joint Ore Reserves Committee (JORC) Code (1996). Snowden has reviewed these estimates and identified a lack of independent and systematic QAQC procedures and protocols for the base data. This issue needs to be resolved before the estimates can be considered to achieve compliance either with the JORC Code (2004) or with the CIM Guidelines incorporated into NI 43-101. The bulk of the resource definition drilling undertaken was by reverse circulation (RC) methods and unfortunately there are no residual samples available for retesting. Importantly, Moncoa is not relying upon these historical resources and is not making a public report of mineral resource estimates at this time.

Moncoa has planned a programme of RC drilling that has been designed to confirm the suitability of the historic drill data for use in the generation of the resource estimate. Moncoa then plans to advance the Selinsing Project by estimating mineral resources in a manner that will be compliant with the Canadian National Instrument NI 43-101 and CIM guidelines. This estimate will be used as the basis of ongoing studies into the feasibility of bringing the mine back into production.

Previous metallurgical testing of Selinsing mineralisation has indicated gold recoveries for conventional gravity and leach testing ranging from 61% to 96% for poor and amenable samples respectively.

Upon completion of the resource estimate, studies can commence on the feasibility of the Selinsing Project.

Snowden also considers the region around the Selinsing project to be prospective for exploration.

### 2 Introduction and terms of reference

Moncoa engaged Snowden to prepare a technical report on the Selinsing project. The Selinsing Project is located in the Malaysian state of Pahang. The project:

- comprises two mining leases, MC1/124 and MC1/113
- covers an area of about 170 acres
- is located at Bukit Selinsing near Kg Sungai Koyan, approximately 65 km north of Raub and 30 km west of Kuala Lipis on the lineament known as the Raub Bentong Suture, at approximately 04°15'00"N latitude, 101°47'10"E longitude.

Moncoa has the right to acquire 51% of MC1/113 and the subsequent obligation to purchase a 100% interest in MC1/124 This Technical Report has been prepared in accordance with the requirements of Form 43-101F.

Mr. Michael Andrew, an employee of Snowden, acted as the independent Qualified Person responsible for preparing this Technical Report in Snowden's Perth Office.

The author visited the site from the 4<sup>th</sup> to the 7<sup>th</sup> of April 2006. No exploration activities were being undertaken at the time of the site visit. Snowden reviewed geological mapping, results of diamond core drilling programs and geological interpretations. Drill collars and core were substantiated. The author inspected the half core that is stored in various core sheds and checked the quality of logging performed. Confirmatory sampling of the diamond drill core was also undertaken. The site inspection was undertaken with Mr Zaidi Harun, Geology Manager and Jimee Shah, Operations Manager representing Moncoa.

This report is intended to be used by Moncoa and is subject to the terms and conditions of its contract with Snowden. Reliance on the report may only be assessed and placed after due consideration of the nature of Snowden's scope of work, as described herein. This report is intended to be read as a whole, and sections or parts thereof should therefore not be read or relied upon out of context.

Snowden permits Moncoa to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Snowden also authorises Moncoa to present Snowden's report in its entirety to such financial or commercial institutions as Moncoa sees fit.

The author has not reviewed the land tenure situation and has not independently verified the legal status or ownership of the properties or any agreements that pertain to the Selinsing Project. The results and opinions expressed in this report are based on the author's field observations and assessment of the technical data supplied by Moncoa. Snowden has carefully reviewed all of the information provided by Moncoa, and believes it is reliable from the checks made.

The coordinate system used for the project grid is based upon the Universal Transverse Mercator (UTM) projection.

All measurement units used in the resource estimate are metric and the currency is expressed in Canadian dollars (C) unless stated otherwise.

### 3 Disclaimer

No disclaimer statement was necessary for the preparation of this report. The author has not relied upon reports, opinions or statements of legal or other experts who are not qualified persons.

## 4 Property description and location

The Selinsing Project is located in the Malaysian state of Pahang. The two mining leases, MC1/124 and MC1/113 located at Bukit Selinsing near Kg Sungai Koyan, cover an area of about 170 acres and are located about 65 km north of Raub and 30 km west of Kuala Lipis on the lineament known as the Raub Bentong Suture, at approximately 04<sup>0</sup>15'00''N latitude, 101<sup>0</sup>47'10''E longitude (Figure 4.1).

Moncoa has the right to acquire 51% of MC1/113 and the subsequent obligation to purchase a 100% interest in MC1/124. Moncoa advised Snowden that the mining leases are subject to certain conditions governing occupation which include:

- approval of the Director of Forests to remove timber (granted)
- State Government approval of any mine development (granted)
- Mines Department approval of any mine development (granted)
- labour employment covenants requiring 50% of all employees to be Bumiputra.

Moncoa further advised Snowden that lease MC1/113 carries a 5% royalty payable to the Malaysian government. Moncoa also advised that the tenements have no encumbrances or liabilities associated with them.

The author has not reviewed the land tenure situation and has not independently verified the legal status or ownership of the properties or any agreements that pertain to the Selinsing Project.



Figure 4.1 Location plan (modified from Google Earth)

## 5 Accessibility, climate, local resources, infrastructure and physiography

### 5.1 Accessibility and infrastructure

The Selinsing Project is accessed by sealed roads from the regional centres of Kuala Lupis 30 km to the east and Raub 65 km to the south. Figure 5.1 shows the location of the mine relative to the access road located to the east. A 33KV national grid power line runs past the leases.



Figure 5.1 Oblique view of mine site location (Modified from Google Earth)

The site water supply is drawn from a local river, from which Moncoa has indicated there is no limit on how much can be drawn. A small heap leach operation currently operates on the site producing approximately 1,000 ounces of gold per annum by treating tailings from previous production at Selinsing (Figure 5.2, Figure 5.3). As well as the infrastructure associated with the heap leach operation, the site has office buildings, a core storage facility (Figure 5.4), workshops, a disassembled 640 kV ball mill (Figure 5.5) and other miscellaneous heavy equipment.

Figure 5.2 Leachate pond



Figure 5.3 Heap leach tanks





Figure 5.5 Ball mill components



### 5.2 Climate and physiography

The central Malaysian peninsula has a tropical climate, with the annual temperature ranging between 23° C and 36° C. Annual rainfall averages approximately 230 cm per annum. Peak rainfall periods are September through to December and March through May. The Selinsing Project is approximately 400 m above sea level and the surrounding area has relatively moderate to gentle relief. Land use around the site is primarily agricultural with palm oil the principal crop. Figure 5.6 shows a view from the access road northwest towards the site.



Figure 5.6 View of the Selinsing Project

### 6 History

### 6.1 Historical mining to 1939

The Selinsing deposit has a long mining history. Prior to the establishment of the British Administration in Pahang in 1888, gold mining has been occurring at Bukit Selinsing, probably for centuries. The surface of the hill at Selinsing is covered with numerous small shafts and pits over the ground surface as a result of this activity. An underground gold mine was operating under European management prior to 1888 but there are few details of this period of its history. In 1897 the area was included in the Selinsing concession issued to the Malayan Pahang Exploration Company Limited and this European group worked the mine between 1889 and 1901. During this time the underground mine was reported to have produced 31,000 ounces of gold bullion. Between 1903 and 1904, the tailings from prior mining were cyanided with subsequent gold production of 3,535 ounces. In 1904, Selinsing was transferred to the Malay Pahang Mining Syndicate Limited, and in that year all mining ceased. In 1924, the original manager obtained a prospecting licence over the area and attempted to re-open the mine but this attempt failed due to insufficient financial support. The property then remained idle until 1931 when a prospecting licence was taken out by the Raub Australian Gold Mining Company Ltd who dewatered the Robey shaft to the 200 foot level. This company then carried out prospecting in the 200 foot level from 1931 to 1934. In 1934 the mine was transferred back to Mr L. W. Richards and he held it inactive until Messrs. Nielsen & Company Incorporated, Manila, became interested in the deposit in 1937. In January 1938, Selinsing Consolidated Mines Limited was floated by Messrs. Nielsen and Company Incorporated, Manila to develop the mine. Mr. T. E. Gillingham of Selinsing Consolidated Mines Limited described the deposit in the Company's prospectus thus:

"The quartz occurs in lenticular bodies, which diminish vertically and horizontally to narrow stringers, and in tiny veinlets which may be fairly persistent along the schistose planes of the phyllites. The tiny veinlets are particularly abundant, and are most likely responsible for the rather uniform distribution of gold values throughout the mass of the hill."

Towards the end of 1938 mining and milling equipment was installed and the Robey Shaft dewatered early in 1939. One reef on the 200 foot level was developed and stoped, being worked out by September 1939. Mining operations ceased at this time and the mining equipment was dismantled and returned to Manila. According to data supplied to the Mines Department, the total production from March to October 1939 amounted to 413 ounces of fine gold. The mine was closed from 1939 to 1987 when it was reworked by Tshu Lian Shen Mining Sdn. Bhd.

### 6.2 Summary of recent mining 1987 to 1996

Tshu Lian Shen Mining Sdn. Bhd. (TLSM) mined the Selinsing deposit from 1987 up to mid 1996 concentrating mainly on high grade quartz veins with visible gold and higher grade halo ore. Ore grade control was carried out by panning the ore and assessing the ore grade visually. Mining was carried out using a Komatsu PC300 hydraulic excavator with the ore being transported to the plant in Isuzu 10 tonne dump trucks. The ore was initially crushed in a single small ball mill with the ore feed passing over a series of palongs (wooden riffle chutes) to concentrate the gold. The concentrate from the palongs was then fed over a series of Wilfley shaking tables to remove the gold. The tails were discharged directly into the tailings ponds from the palongs. This set up was initially satisfactory but as the oxide ore was depleted, more ball mills were required to keep the ore throughput at the same level. By the end of TLSM's involvement there were four ball mills operating but gold production levels were still declining. This was due to the inability of the technology being used to adequately liberate the gold. The Company was also experiencing mining difficulties in the pit with the exhaustion of free digging high grade ore. As a result of this, some experimentation was carried out using explosives, but this was minimal due to a lack of experience in this field. TLSM's total production has been estimated at approximately 50,000 ounces of gold.

#### 6.3 1996 to present

In 1997, the Selinsing Mining Joint Venture consisting of TRA Mining (Malaysia) Sdn. Bhd. (TRA) and Trident (formerly Tshu Lian Shen Mining Company) formed an incorporated company known as the Selinsing Mining Joint Venture Sdn. Bhd. to manage the interests of both parties. TRA became involved in the project in May 1996, when it commenced drilling. TRA undertook several campaigns of drilling which are described in Sections 10 and 11 of this report. TRA undertook a feasibility study into the Selinsing Project in 1999. Treatment of the tailings began in 2003 and production is summarised in Table 6.1.

Table 6.1	Tailings production	2003 to 2005
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Year	Ounces
2003	1,298
2004	3,742
2005	1,584

## 7 Geological setting

### 7.1 Regional geology

The regional setting of the gold deposit is detailed in E. B. Yeap's 1993 paper titled "Tin and gold mineralisations in peninsular Malaysia and their relationships to the tectonic development". This is further summarised by Martin, I.D. October 1995.

Peninsular Malaysia can be divided into two main regional blocks separated by the Raub – Bentong Line which is a major suture zone. This fault zone divides the Sibumasu Block (Western Block) in the west from the Manabor Block (Eastern Block) in the east (Yeap, E. B. 1993). By the late Carboniferous, the Western Block was attached to a continent, possibly Gondwana, and the eastern margin of this was occupied by a shelf which quickly gave way to open ocean.

By Late Carboniferous to Early Permian, westward subduction of oceanic lithosphere beneath the Western Block close to the Raub – Bentong suture was initiated. Riding on this oceanic lithosphere were many continental fragments which were accreted onto the Eastern Block to form the Timur and Tengarra Foreign Terranes. This subduction led to the granitic intrusion that now makes up the Western Tin Belt.

Subduction ceased temporarily and the subduction zone shifted to the east. By the Early Triassic, subduction was reinitiated along a new zone to the east of the earlier zone. With time, gold-bearing fluids are believed to have been released as oceanic lithosphere was subducted beneath the newly accreted wedges of shelf carbonates and marine sediments. These fluids migrated upwards along large regional fractures cutting the sediments that were newly accreted onto the eastern margins of the Western Block and deposited the gold deposits which constitute Yeap's "Gold Belt 2". Yeap's gold belt 2 or the Berching – Raub – Bersawah Gold Belt (Figure 7.1) is the best defined of the four gold belts. The gold mineralisation typically takes the form of veins, reefs and lodes striking from 345° to 360° in moderately to strongly metamorphosed sediments.

In terms of historical gold production this belt is the most significant as the Raub Australian Gold Mine produced an estimated one million troy ounces of gold bullion between 1889 and the 1960s. Yeap (1993) gives details of the primary gold occurrences within this belt.



Figure 7.1 Peninsular Malaya mineral occurrences (from Yeap, 1993)

### 7.2 Property geology

The Selinsing deposit is hosted by a 30 to 50 metre thick shear zone that dips steeply towards mine grid east (082° true grid) at angles between 55° and 75°. This zone or "envelope" of sheared rocks has been variably mineralised and intruded by gold-bearing quartz veins and stockworks of quartz veinlets. The quartz veins are likely to have been emplaced along individual fault surfaces. The faulting is thought to be essentially dipslip reverse thrusting caused by compression from the east. Strike-slip movement is not thought to be significant although a north-westerly structure post dating the gold mineralisation is evident and could have a strike-slip component. The host rocks for the shear zone consist of a series of finely interbedded argillites and very fine-grained arenites. Also present are sequences of quartz rich, variably silicified sediments of likely tuffaceous origin, which are referred to as "felsic tuff" and a few thin beds of quartzite conglomerate. These country rocks are collectively known as the mine sequence series.

The mine sequence sediments are deep marine epiclastic sediments laid down in quiet conditions and are thought likely to be of volcanogenic origin. The mine sequence has undergone low grade regional burial metamorphism which is seen by the development of chlorite in some of the country rocks, more notably the felsic volcanics.

These country rocks are host to the shearing which has transported the gold-bearing fluids. One interpretation is that the mine sequence has a true thickness of about 200 metres but as very little is known about the position of the footwall contact, it is difficult to distinguish between the mine sequences in the field without detailed petrographic studies due to the fine-grained nature of the host rocks. A second interpretation is that within the shear zone, repetition of these units by shearing creates a structural thickening of the sequence.

The hanging wall rocks are a distinctive sequence of predominantly "dirty," competent, well-bedded, dark coloured limestones. To the base of the limestones is a small unit of black well-bedded carbonaceous shales, sometimes calcareous in places. The contact of these units with the mine sequence is thought to be a tectonic or faulted contact due to the unconformable nature of the bedding on either side of the contact. The contact itself is characterised by large water-filled clay-lined cavities. Little is known about the footwall contact because the base of the mine sequence has not been extensively explored. However the footwall does consist of the same type of "dirty" grey-black limestones as in the hangingwall and it is suspected that these units are the same and have been repeated due to the faulting which hosts the gold mineralisation. This means that the less competent mine sequence units have allowed the shearing to occur through these units due to rheological contrasts between the limestones and the argillites and arenites. The hangingwall limestones have locally developed folds resulting from easterly compression and underground, the limestones are reported to have been seen to become calcareous argillites along strike in the same bedding plane.

Within the shear zone itself there are distinctive tectonic rock types, the most noticeable of which are cataclasites and mylonites. Variation in the amount of shearing from place to place has produced a set of tectonic rocks from both brittle regimes (cataclasites) and ductile regimes (protomylonites or foliated cataclasites through to recrystallised mylonites). It is likely therefore that this part of the fault zone was developed in the brittle-ductile transition zone at 10 to 15 km depth. Gold and sulphide mineralisation is associated with these rock types as well as intensive replacement by quartz and calcite gangue minerals. Pressure / temperature studies on fluid inclusions in quartz confirm a depth of about 10 km.

## 8 Deposit types

The Selinsing Project is a mesothermal lode gold deposit hosted by a series of auriferous quartz veins and stockworks of quartz veinlets in a sheared package of calcareous epiclastic sediments.

### 9 Mineralisation

Gold mineralisation is in the form of very fine gold particles commonly associated with pyrite and arsenopyrite and rarely with chalcopyrite. Coarse visible gold occurs in quartz veins within the shear zone and these can have gold grades well in excess of an ounce per tonne. These high-grade quartz veins can be over a metre in true thickness and are quite continuous along strike and down-dip (Figure 9.1 and Figure 9.2). These veins have been traced up to 300 m along strike and over 200 m down-dip. Lower-grade gold mineralisation is found in the intensely deformed and crushed haloes around the quartz veins within the shear zone. Disseminated pyrite mineralisation in the crushed country rock in the shear zone is common and this mineral, along with the presence of euhedral arsenopyrite, is a good indicator of higher gold grades.

#### Figure 9.1 Quartz veins in west wall of open pit





Figure 9.2 Quartz stockworks and veins in pit floor (photograph is approximately 1 m across)

A review of the data and geological interpretation on site with Moncoa staff suggested a plunge control on the mineralisation with a gentle to moderate southerly plunge inferred. Figure 9.3 is a cross section from the Selinsing Project 1980 mN section line, showing the drilling, mineralised structures (grey lines), high grade structures (red lines), base of oxidation surface (brown line) and topographic surface (green line).



Figure 9.3 Selinsing cross section 1980 mN

Table 9.1 summarises the significant intersections, over 5m in intersected thickness, using a lower grade cut off of 0.5 g/t Au, from the drilling presented in Figure 9.3. The bulk of the drilling is drilled normal to the dip of the mineralisation, so that the bulk of the intersections are close to true thickness.

Hole ID	Hole Type	From	То	Thickness	Au
SELRC0467	RC	33	58	25	7.97
SELRC0207	RC	23	45	22	2.38
SELRC0354	RC	21	36	15	1.79
SELDD0002	DD	38.28	50.79	12.51	26.06
includes	DD	40.58	41.17	0.59	386.00
SELRC0188	RC	54	66	12	17.94
includes	RC	57	58	1	117.00
includes	RC	58	59	1	28.10
includes	RC	59	60	1	21.60
SELRC0208	RC	44	56	12	1.72
SELRC0158	RC	56	65	9	6.46
SELRC0354	RC	39	48	9	0.88
SELRC0450	RC	29	38	9	2.98
SELRC0036	RC	17	25	8	2.12
SELRC0098	RC	13	21	8	1.14
SELRC0098	RC	38	46	8	1.29
SELRC0386	RC	36	44	8	1.55
SELRC0049	RC	83	90	7	5.65
SELRC0117	RC	56	63	7	2.29
SELRC0441	RC	150	157	7	1.26
SELRC0457	RC	21	28	7	2.32
SELRC0457	RC	38	45	7	1.21
SELRC0494	RC	49	56	7	13.52
includes	RC	54	55	1	70.00
SELRC0003	RC	68	74	6	1.74
SELRC0188	RC	35	41	6	1.56
SELRC0206	RC	43	49	6	2.31
SELRC0207	RC	50	56	6	1.34
SELRC0453	RC	18	24	6	1.83
SELRC0479	RC	133	139	6	10.60
SELRC0479	RC	145	151	6	13.21
SELRC0049	RC	42	47	5	0.92
SELRC0117	RC	75	80	5	10.73
SELRC0117	RC	101	106	5	44.80

Table 9.1 Summary of intersections from section 1980 mN

Hole ID	Hole Type	From	То	Thickness	Au
includes	RC	102	103	1	42.60
includes	RC	103	104	1	142.00
includes	RC	104	105	1	37.20
SELRC0117	RC	107	112	5	1.44
SELRC0224	RC	37	42	5	1.62
SELRC0354	RC	51	56	5	0.77
SELRC0386	RC	5	10	5	2.14
SELRC0449	RC	33	38	5	1.15
SELRC0450	RC	39	44	5	1.98
SELRC0457	RC	31	36	5	5.07
SELRC0457	RC	47	52	5	18.30
includes	RC	48	49	1	78.20
SELRC0479	RC	114	119	5	1.34
SELRC0494	RC	59	64	5	9.99
SELRC0494	RC	72	77	5	2.23

### 10 Exploration

Moncoa has not undertaken any exploration at Selinsing. All work to date has been undertaken by the previous owners of the Selinsing Project. Exploration at Selinsing has been undertaken since 1995 when initial rock chip soil and channel sampling was undertaken. This work was then followed by three phases of drilling over the Selinsing resource and two phases of drilling over the tailings resource. Figure 10.1 is a drill hole location plan with the drill hole paths colour coded such that air core (AC) traces are in blue, reverse circulation (RC) traces are in green and diamond drilling (DD) traces are in red. Also shown are the lease boundaries as white lines. The AC drilling was carried out in the tailings material and includes some shallow 2 m auger holes.



Figure 10.1 Selinsing drill hole location plan

Table 10.1 summarises the drilling undertaken as part of exploration at the Selinsing project. Snowden has reviewed the available documentation and discussed the drilling programme with Moncoa geologists who were also involved with the work, and concludes that exploration was undertaken in a competent and professional way at the Selinsing Project. Drilling over the main part of the Selinsing Project is on a 20 m by 20 m grid.

		-			
Date	Campaign	Hole numbers	Drilling type	Total meters	Average meter per hole
1996	Phase 1 Tailings	SELAC001 to SELAC056	AC	871.2	15.6
1996	Phase 2 Tailings	SELAG001 to SELAG033	Auger	66	2
1996	Phase 1 Selinsing	SELRC01 to SELRC280	RC	23529	83.7
1997	Phase 2 infill Selinsing	SELRC295 to SELRC509	RC	15312.5	72.6
1996 to 1997	Selinsing	SELDD001 to SELDD013	DD	1863.45	143.3

Table 10.1Exploration drill summary

### 11 Drilling

The following sections detail the key aspects of exploration drilling undertaken at the Selinsing Project.

### 11.1 Collar surveying

All drill hole collar locations were surveyed by the TRA survey team using a Leica TC 1100 total station survey instrument. The accuracy of this instrument is stated to be  $\pm 1$  second of angular measurements for distances up to 1.5 km. The survey information was stored in Liscad SE software, version 3.2., prior to downloading to Micromine software where the data is stored for modelling. Drillhole locations in the database are recorded in mine grid coordinates. The coordinates are accurate to  $\pm 10$  cm. Survey information was transferred electronically from Liscad to the Micromine database to prevent handling errors.

### 11.2 Downhole surveying

Drill holes were surveyed down the path of each hole using an Eastman single shot wire-line camera. Downhole surveying only started in late 1996 so a large proportion of holes drilled before this time are not surveyed downhole because the holes have collapsed. All DD hole paths have been surveyed but only one RC hole has a downhole survey data. No change in azimuth with depth is observed in the supplied downhole survey data.

Figure 11.1 shows the changes in dip with drill hole depth for the available data downhole data. This plot reveals that drill hole dip generally becomes more horizontal with depth, which is a common effect in inclined drilling.



Figure 11.1 Changes in hole path dip with increasing downhole depth

#### 11.3 Core recovery

The average core recovery for the 13 DD holes in the deposit is 92%. This average includes intervals from the start of the hole where recovery would be expected to be poor and some logged cavities.

### 11.4 Security procedures

The author cannot comment on past procedures used to ensure the security and integrity of sampling of the drill core. The author has advised Moncoa staff to make the core storage facility secure as it is currently unsecured.

### 11.5 Comments on drilling

The author found that industry standard logging conventions were used by Moncoa to record information from the drill core. The core is logged in detail onto paper records, and the data is then entered into the digital project database. The core is also photographed before being sampled.

While visiting the site in April 2006, the author reviewed the core logging procedures and found them to be done in a systematic fashion, competently and in accordance with industry standards. Drill core was found to be well handled and maintained. The core is stored on racks in a core shed located at the Selinsing Project.

The lack of downhole survey data for the RC data indicates that there is currently some degree of spatial inaccuracy in the RC data which needs to be quantified for any future resource evaluations.

## 12 Sampling method and approach

### 12.1 RC drilling

23,557 RC drill samples were collected for assaying purposes at the drill site by splitting bulk samples from each metre drilled using a 75%: 25% three stage riffle splitter. The splitter reject was returned to a numbered bag whilst the smaller split sample was collected in a calico bag and taken to the sample preparation laboratory. If the sample was found to be damp or wet the whole one metre sample was not split in the riffle splitter in order to prevent carry-over contamination of the next sample. In this case, the sample was split by using a piece of PVC pipe to take a cylindrical sample through the entire length of the bulk sample. This sample was then placed in its numbered calico bag as usual. Wet or damp samples were flagged in the geological log.

### 12.2 DD drilling

A total of 1,543 DD samples were collected for assaying purposes. The following points summarise the core sampling procedures described by Moncoa staff and observations made by the author during the April 2006 site visit:

- Core was placed in boxes of appropriate size (NQ, HQ) according to the core diameter.
- At the drill site, the core boxes were marked with the following information:
  - Hole number (e.g. Hole No. 2)
  - Box number (e.g. 23 -> R-97-2-23)
- Hole depths were marked with wooden blocks at the end of each core barrel run.
- Boxes were stored in the core shack in the Selinsing camp.
- Geologists measured the core and calculate the percent recovery between blocks.
- Core boxes were photographed.
- Geologists produced paper and digital logs (Husky Hunter), documenting lithology, alteration, alteration intensity, rock color, texture, grain size, structures, type of mineralisation and mineralisation intensity.
- Digital logs were printed out and reviewed in detail for accuracy.
- Mineralised sections of core were marked up by geologists.
- Core sample intervals were halved using a diamond blade saw. Geologists supervised the cutting to ensure the mineralisation is properly halved.
- The portion of core to be assayed was placed in a plastic sample bag.

### 12.3 In situ density

To determine rock in situ density, short sections of drill were cross-cut using a diamond tipped core saw so that the sample was a cylinder. Any core, which broke during the sawing process, was not used for density determinations. The diameter of the core was measured to see if there was a noticeable difference from the expected diameter and

then weighed on an electronic weighing machine that was accurate to 0.01 g. In situ density was then computed from the volume and mass of the test samples.

Only dry core was used for these calculations so that dry bulk densities values could be calculated. Snowden noted that there were three main ore types which make up the deposit. These are quartz (vein rock), breccia and stockwork (halo-mineralisation). From four mineralised intersections in holes SELDD001 and DD003, it was determined that the approximate deposit volumes of these three ore types are 14.8%, 40.5% and 44.7% respectively. Average density determinations collected from the field data show these rock types to have density values as summarised in Table 12.1. The average density of fresh mineralisation is therefore estimated to be 2.70 t/m<sup>3</sup> while the average for oxide mineralisation is 2.53 t/m<sup>3</sup>.

deposit volume
14.8 %
40.5 %
44.7 %
100.0 %

 Table 12.1
 Summary of Selinsing density measurements

### 12.4 Comments on sampling method and approach

Due to the historic nature of the sampling, the author cannot comment directly on the sampling methods employed at the Selinsing Project. However, from discussions Snowden had with Moncoa staff who were present during the historic drilling programmes, Snowden has no reason to suspect that protocols and procedures that were followed were sub-standard in terms of industry accepted sampling practices.

### 13 Sample preparation, analyses and security

Sample preparation for samples collected up to drill hole SELRC280, was undertaken by TRA at a sample preparation facility at Kuala Lipis. This facility was inspected by MRT in March 1997 and problems with some of the equipment were identified. A new sample preparation facility was subsequently commissioned at the Selinsing Project site in April 1997.

#### 13.1 Sample preparation

RC samples were dried in the normal manner then split through a 50:50 bench scale riffle splitter prior to pulverising. Half of the original 2 kg sample was discarded because the pulverising bowl was limited to maximum capacity of approximately 800 g. For diamond core samples, half of the length to be sampled was crushed using an Essa jaw crusher and then sampled as per the RC samples. If the core was wet the sample was returned to its bag and dried prior to splitting. Each sample was pulverised in an Essa RM2000 pulveriser for four minutes. This pulveriser has the ability to crush the material down to 95% passing 75 microns. The 250 g samples were then collected and dispatched as normal. The site laboratory prepared all of the new RC and diamond core samples from the Phase 2 drilling programme, which included the range of holes SEL-RC 281 to 509, SEL-DD001, and SEL-DD003 to 13.

### 13.2 Security measures

The author cannot comment on security measures employed with the samples dispatched from the Selinsing Project due to the historical nature of the sampling. However, the author has no reason to suspect that industry standard protocols and procedures were not followed. Samples were dispatched to the Assaycorp laboratory at Kuching for analysis.

# 13.3 Laboratory certification, sample preparation, assaying and analytical procedures

For the older samples from the Phase 1 drilling programme, Assaycorp carried out a second pulverisation due to the coarse nature of the samples that TRA prepared with its horizontal axis Keegor Mill. The 250 to 300 g samples were reground to 90% passing 100 microns and then a 50 g charge was taken for fire assaying. The pulverising was done in either a disc grinder or a Keegor Mill. For the Phase 2 samples no regrind was necessary and a 50 g charge was split out immediately for assay. The fire assayed material then underwent aqua regia digest followed by atomic absorption spectra (AAS) analysis for the final result. Assay precision (repeatability) was quoted at  $\pm 15\%$  with a minimum detection limit of 0.01 parts per million (ppm). Assaycorp was instructed to re-assay samples with results > 1 g/t, until another result within 15% was obtained. Snowden does not endorse this practice.

### 13.4 Quality control measures

TRA did not employ a systematic or independent QAQC programme with the samples submitted to Assaycorp. Some check programmes were implemented after the MRT visit in 1997 which included:

1. Assaycorp Kuching assays checked by MRT for repeatability.

- 2. Intra-laboratory checks of Assaycorp vs Genalysis in Perth, WA for systematic bias.
- 3. Assaycorp checks on repeats of samples sent to Genalysis.
- 4. Field duplicates on coarse split ore grade material from the pit.
- 5. Re-splits resubmitted blind after preparation at Kuala Lipis.
- 6. Assaycorp Kuching quality control repeats (not blind).
- 7. Assaycorp Kuching results checked by Assaycorp Pine Creek.

Not all the data was available from the check programmes instituted.

#### 13.5 Blank performance

In addition to the above checks, blank materials were inserted with the sample stream to test for cross-contamination between samples. A total of 40 blanks were submitted and the results are plotted in Figure 13.1. The results are too few for definitive conclusions to be drawn but the one result of almost 7 g/t Au indicates a contamination problem in at least one sample.



Figure 13.1 Blank sample results

### 13.6 Umpire assays

A total of 42 samples were submitted to Genalysis in Perth for umpire analysis. Figure 13.2 shows a log QQ plot of the umpire data and also a precision plot (pair mean, half absolute difference) of the data. The QQ plot indicates a positive bias towards the Assaycorp data in the grade range of 1 to 10 g/t Au such that the Assaycorp data is generally higher grade than the Genalysis results in this grade range. This bias is reflected in the precision plot over the same range where approximately 25% of the data is over the 20% precision line. As there are no common standards used by both labs no firm conclusion can be drawn as to which results are accurate.



#### Figure 13.2 Umpire analysis QQ and precision plot

### 13.7 Assay repeat data

A total of 6,982 repeat gold analyses were undertaken on pulps in the primary laboratory; the results are presented as QQ and precision plots in Figure 13.3.



Figure 13.3 Lab repeat data Log QQ and precision plot

The QQ shows good correlation between the original and repeat data and the precision plot reveal acceptable repeatability with only a 602 of the 6,892 results exceeding a half-absolute relative difference of  $\pm$  20% of the pair mean.

# 13.8 Opinion on the adequacy of sampling, sample preparation, security and analytical procedures

The author considers the sampling practices at Selinsing not to be in accordance with the CIM guidelines since insufficient systematic and independent QAQC data has not been included with the sample data that will be used for resource estimation purposes. In particular, the QAQC data that is available allows assessment of repeat precision but not the accuracy of results. Assuming umpire results are accurate, the check-assay data suggests that the Kuching laboratory may be overstating gold grades in the 1 to 10 g/t Au range. However, this indication cannot be confirmed because certified reference materials were not submitted to assess the accuracy of the results from the two laboratories.

The repeat pulp-assay data suggests that the primary laboratory has good repeatability but again the lack of independent standards means that the accuracy of the Kuching lab cannot be gauged.

The author cannot comment on security of sample during collection and assaying at Selinsing due to the historical nature of the data collection.

### 14 Data verification

### 14.1 Verification by author

While on site, the author reviewed the database, the geological interpretation, the collection of drill hole data, surface exposure, the preparation laboratory and the drill holes in the core sheds. While visiting the core sheds, core from the following drill holes was inspected and compared to the drill logs:

- SELDD001
- SELDD002
- SELDD003
- SELDD007
- SELDD009

Selected core intervals from these holes were also sampled by the author for verification of mineralisation (Table 14.1). In all instances the lithology, mineralisation, alteration and sample intervals were found to agree with the drill logs.

The verification samples were submitted to UltraTrace laboratories in Perth WA for fire assay. The results of the confirmatory sampling are listed in Table 14.1 and confirm the presence of gold at the residual drill cores. While there are some significant differences between the original Kuching laboratory results and the UltraTrace verification samples, the author considers that this variation is consistent with expectations for results from the second half of a drill core in gold mineralisation. Of note is the fact that the UltraTrace repeats (while only two in number) demonstrate low precision, in contrast to the 7,000 pulp repeats depicted in Figure 13.3.

Sample HoleID (interval)	UltraTrace Au ppm	Kuching Au ppm	Diff %
SEL DD001 (76.40-78.16 m)	12.8	29.3	-129
SEL DD002 (41.33-42.33 m)	0.552	9.4	-1603
SEL DD003 (51.66-52.81 m)	11.3	20.8	-84
SEL DD003 (63.73-64.72 m)	8.31	3.82	54
SEL DD003 (63.73-64.72 m) Rpt	6.73	3.82	43
SEL DD007 (133.34-134.24 m)	8.09	7.65	5
SEL DD007 (139.62-140.60 m)	3.98	4.3	-8
SEL DD007 (176.52-177.97 m)	7.39	8.89	-20
SEL DD009 (23.20-24.70 m)	2.35	11.2	-377
SEL DD009 (23.20-24.70 m) Rpt	1.6	11.2	-600

Table 14.1Confirmatory sampling
#### 14.2 Opinion on the verification of data

The author considers that the verification work completed by Moncoa, previous reviewers and Snowden is of a sufficient level to allow the use of the database in a CIM compliant resource estimate, provided that the issue of insufficient QAQC is addressed. In particular, the accuracy of the database assays needs to be quantified as independent check results indicate the possibility of significant grade bias in the primary laboratory data.

### 15 Adjacent properties

The area surrounding the Selinsing Project hosts the Penjom and Raub gold deposits that have been the main sources of gold production in Malaysia. The Penjom mine is still in operation and produces the majority of gold in Malaysia. The Raub mine produced approximately one million ounces between 1889 and 2004 and is currently inactive.

#### 15.1 Penjom Gold Mine

The Penjom Gold Mine is located in the State of Pahang in the centre of Peninsular Malaysia and is Malaysia's largest gold producer. Penjom commenced production in December 1996 and is now producing over 100,000 ounces of gold per year. The 2004 (financial year) production was 124,430 ounces and 119,850 ounces was produced in 2005. The mine was developed and is operated by Avocet Gold Ltd, a wholly owned subsidiary of Avocet Mining PLC, with the support of the Pahang State Development Corporation.

The Penjom deposit was developed from grass roots exploration by Avocet in the early 1990s. The mine commenced production using conventional gravity and Carbon-in-Leach (CIL) process technology for the gold recovery. However, as the ore mined at Penjom became increasingly carbonaceous with increasing depth, the metal recovery rates for CIL fell below 50 %. Penjom successfully solved this problem by developing unique processing systems which include Resin-in-Leach (RIL) technology.

As of March 2005, the estimates of Measured and Indicated Resource at Penjom were reported as 5,635,000 tonnes at an average grade of 3.37 g/t Au (611,300 ounces). There is also an Inferred Resource estimate of 3,471,000 tonnes grading 3.44 g/t Au (384,400 ounces). Underground exploration at Penjom commenced in late 2003 in order to increase the in situ resource. The deposit is presently open-ended in all directions. Ongoing exploration drilling on the surface and from underground is likely to extend this potential

#### 15.2 Raub Gold Mine

The Raub gold deposit, in the Raub District of the State of Pahang, is Malaysia's most historic gold mining centre and has produced over one million ounces mostly from underground operations over the period 1889 till 2004. Peninsular Gold Limited (PGL) has gold exploration rights and conducts mining activities at Raub through two whollyowned Malaysian subsidiaries companies Raub Australian Gold Mining Sdn. Bhd (RAGM) and S.E.R.E.M Malaysia Sdn. Bhd (SEREM).

PGL has reported that it has a 'resource base' comprising approximately 780,000 ounces but this statement does not comply with CIM guidelines in terms of resource classification. PGL is also investigating the possibility of mining open cut oxide material at the Raub mine (Peninsular Gold, 2006).

# 16 Mineral processing and metallurgical testing

This summary of processing and metallurgical testing has been extracted from the TRA 'pre-feasibility' report. Note that this report is material to this technical report but in the authors opinion the study does not meet the requirements to define Mineral Reserves as defined under CIM guidelines, primarily due to the inability to report Mineral Resources as discussed in this report.

#### 16.1 Open pit ore

Samples from 25 RC drillholes and four diamond drillholes (32 m of HQ core) have been used to characterise the metallurgical extraction of gold from the Selinsing deposit above the 380 mRL. Testing has included:

- gravity recovery and cyanide leach recovery of gold
- oxygen addition to improve leach kinetics
- cyanide destruction of probable plant effluent
- slurry viscosity measurements
- thickening of leach plant tailings
- fine grinding characteristics of lump ore from the open cut
- fine grinding characteristics of diamond drill core

The grinding test showed that Mill Work Indexes for diamond drill core, taken from 60 to 100 m depth, are approximately 50% higher than the indexes estimated from lump ore samples collected from the surface of the existing open cut mine. A Ball Mill Work Index of 17 kWh/t has been identified as the upper range for power consumption and this value is based on testing of fresh rock diamond core samples. The lower range power consumption is a Work Index of 12 kWh/t, which was estimated for open pit samples. The Ball Mill is equipped with a 1000 kW drive. The Ball Mill and SAG Mill drive motors are understood to be interchangeable, thus it is possible to install the 1200 kW SAG Mill drive to the Ball Mill. The alternative drive motor capacities are summarised in Table 16.1.

Ore Type	Ball Mill Work Index whirs/t	Ball Mill Drive kW	Mill Through put tph	Annual Mill Utilisation hours	Annual Capacity tonnes
Open pit Oxide	12	1,000	83	7,896 (90%)	655,000
Open pit fresh	17	1,000	58	7,896 (90%)	458,000
Tailings	12	1,000	83	7,896 (90%)	655,000
Open pit oxide	12	1,200	100	7,896 (90%)	789,000
Open pit fresh	17	1,200	70	7,896 (90%)	552,000
Tailings	12	1,200	100	7,896 (90%)	789,000

Table 16.1	Ball mill capacity calculati	ons
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The gravity recovery and leaching test was completed on two suites of samples. The first suite of samples, gathered from eight RC holes, produced very good recoveries for 75% of the holes tested when applying a nominal grind of 80% passing minus 106 microns. Gravity gold recovery results ranged from 14% recovery for the 25% of holes which showed poor overall recoveries, and 42% recovery for the 75% of holes which showed good overall good recovery. The leach recoveries for a 24-hour residence time of gravity plant tailings averaged 58% recovery for the poor-recovery samples and 87% recovery from the good-recovery samples. For a 48 hour leach time, recoveries averaged 61% and 94% respectively. Overall recoveries averaged 67% and 96% respectively.

The leach kinetics were relatively slow with an improvement of about 7% in leach recovery attributed to the additional 24 hours of leach time. The conclusion from this testing was that the potential for fine gold not liberated from within sulphides could be adversely affecting recoveries. Further testing on these samples applying a finer grind, gravity concentration and cyanide leaching with the addition of oxygen, and evaluation of a whole ore sulphide flotation showed that overall recoveries could be improved for the poorer samples to between 75% and 80% using a gravity/leach/oxygen assist route. The more complex sulphide flotation, fine regrind of the sulphide concentrate followed by cyanide leaching of the flotation concentrate returned in excess of 90% recovery.

The second suite of samples was collected from 17 RC holes and these samples were tested at a grind of 80% passing 75 microns. These samples were collected from within the main zone of mineralisation between 1800 mN and 2200 mN. Testing also included some follow up testing on methods of oxygen addition to the slurry. The finer grind was expected to improve gold liberation. The average total gold recovery for second suite of samples was 92% and this result is favourably comparable with the first set of tests. Some samples still showed poorer overall recoveries in the range 60-75% but these samples represented material north of the main target zone of mineralisation.

As discussed previously, fine gold associated within sulphides was considered as one possible explanation for these poorer recoveries. However, there were also indications that there were possible deficiencies in the gravity recovery testing whereby coarser gold particles (which dissolve more slowly) were allowed to pass through to the leach testing. This deficiency could be due to the inefficiencies of the Knelson concentrator used for the gravity recovery testing. The problem here is that the gravity recovery may appear poorer than reality and as the coarse gold particles dissolve more slowly, these grains biased the leach time dissolution results. The spatial distribution of gravity recovery, 48-hour leach recovery, total recovery and total sulphur for all RC samples are illustrated in Figure 16.1, Figure 16.2 and Figure 16.3 where the recovery values are presented on a bubble chart showing the percentage recovery and sample location.



Figure 16.1 Gravity gold recovery all RC samples (from TRA)







Figure 16.3 Total gold recovery for all RC samples (from TRA)

In summary, the areas of lower overall recovery are substantially outside the main target zone of mineralisation (nominally between 1800 mN and 2200 mN) and whilst the lower recovery results are still inadequately explained, the results do not materially affect the project economics. There are several lower total recovery results (Figure 16.2) within the main zone of mineralisation (65%, 70%) which require some follow up testing.

There are no clear trends in spatial distribution of gravity gold recovery and there does not appear to be any relationship between the presence or absence of sulphides and the degree of gravity recovery and leach recovery. The very low total sulphur concentrations in the metallurgical test samples collected around 720 mE reflects primarily oxide samples from Bukit Selinsing (Figure 16.4).



Figure 16.4 Sulphur concentrations for all RC samples

The only factor that appears to be consistent from the testing of all samples is that for open pit ore, gold recovery is maximised by a 48-hour leach time combined with a fine grind (minus 75 microns). This conclusion has significant implications for the leach tank capacity required to achieve the residence time.

Testing to evaluate slurry rheology completed by AMMTEC did not identify any aspects of the slurry which were likely to make it difficult to agitate.

Thickening testing of ore slurries by Superflo Technologies identified the key physical parameters for thickening of the slurry after gravity treatment in order to minimise the required leach tank volumes for the leach section of the plant.

# 17 Mineral resource and mineral reserve estimates

There is no Mineral Resource or Mineral Reserve estimate for the Selinsing Project that is able to be reported in accordance with the requirements of NI 43-101.

# 18 Other relevant data and information

Snowden is not aware of any other relevant data and information made available by Moncoa.

## 19 Interpretation, conclusions and recommendations

The Selinsing Project is at an advanced stage of exploration and has been subject to diamond drilling, RC drilling and surface sampling programmes. Systematic QAQC data needs to be collected and assessed by Moncoa so that the current drilling database can be used to generate a resource estimate compliant with the NI 43-101 and incorporated CIM guidelines. This will be addressed by a dedicated programme of confirmatory drilling with an approximate cost of C\$50,000. Moncoa has indicated that such a programme is scheduled to start in June 2006. Snowden has been retained to act as Qualified Person to monitor the drilling programme and analyse the QAQC data that is collected. From this programme, a decision will be made on the validity of the historical database.

Snowden recommends a separate detailed exploration programme be conducted on lease MC1/113, at an approximate cost of C\$900,000. The objective of this programme will be to investigate deep targets in order to generate additional mineral resources and mineral reserves. An approximate breakdown of the drilling campaign cost is presented in Table 19.1.

Item	Quantity	Cost (C\$)
RC drilling	12,000 m	600,000
Diamond drilling	1000 m	110,000
Mobilisation costs		5,000
Assaying	9750 samples	97,500
QAQC assays		24,375
Downhole Survey		6,750
Collar survey		1,920
Supervision		14,400
Targeting programme		15,000
Storage costs		10,000
Database purchase		15,000
TOTAL		899,945

 Table 19.1
 Approximate costing of separate detailed exploration drilling programme

The recommended drilling programmes have the following features:

- Moncoa will conduct a targeted RC drilling programme as described above with comprehensive QAQC in order to confirm the validity of the current RC sample database.
- following this programme Snowden will provide Moncoa with a recommendation on the suitability of the RC database for use in a resource estimate, according to NI 43-101 and incorporated CIM guidelines.
- Moncoa should undertake a review of regional and near mine exploration targets as Snowden considers the area to be prospective for further discoveries.

- Moncoa needs to implement a commercial database system for data storage at an estimated cost of C\$15,000 including installation and hardware.
- the core and sample storage facilities need to be made secure. Estimated costs for secure storage installation are in the order of C\$10,000.

Snowden will visit the Selinsing site at the commencement of the proposed confirmatory drilling programme to ensure that drilling, subsampling, surveying and QAQC practices are being carried out to accepted industry standards.

Snowden further recommends that Moncoa purchases 100% ownership of the MC1/124 lease which is adjacent to lease MC1/113 on which the Selinsing orebody is situated. This will allow for construction of processing, tailings dam, stockpile, office and accommodation facilities. A possible layout of infrastructure on MC1/124 is shown in Figure 19.1.



Figure 19.1 Conceptual layout of Selinsing infrastructure on lease MC1/124

### 20 References

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### 21 Certificate of Author

#### **CERTIFICATE of AUTHOR**

I, Michael Charles Andrew, MAusIMM, BSc, do hereby certify that:

- I am Principal Consultant Resources of: Snowden Mining Industry Consultants, 87 Colin Street, West Perth, WA 6005.
- I graduated with the following degree:
   BSc in Geology Australian National University, ACT, Australia, 1983
   And have completed the following post graduate qualification:

Post Graduate Certificate in Geostatistics – Edith Cowan University, WA, in 2005

- 3. I hold the following professional qualifications:
  - Member of the Australasian Institute of Mining and Metallurgy (MAusIMM)
  - Member of the Geostatistical Association of Australasia (MGAA)
- 4. I have worked as a geologist for a total of 23 years since my graduation.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, that I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am responsible for the compilation of the technical report titled "Selinsing Gold Mining Project, Malaysia" and dated June 2006 (the "Technical Report") relating to the Selinsing Project. I visited the Selinsing property in April 2006 for four days, during which time I carried out site visits to the property, reviewed the geological models, data collection, sample preparation and quality control procedures.
- 7. I have had no prior involvement with the property that is the subject of the Technical Report.
- 8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 9. I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.
- 10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
- 11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 1st day of June, 2006.

Michael Condrew

Michael C Andrew

# **SNºWDEN**

# Final

Moncoa Corporation: Addendum to the Technical Report entitled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report Project No. **5174** 

Selinsing Resource Estimate

September 2006

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This report has been prepared by Snowden Mining Industry Consultants ('Snowden') on behalf of Moncoa Corporation.

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Issued by: **Perth** Office Doc Ref: 060921\_Final\_5174\_Moncoa\_Addendum\_Selinsing\_R.doc

Print Date: 21 September 2006

Number of copies Snowden: 2 Moncoa Corporation: 2

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## 1 Summary

Moncoa Corporation (Moncoa) engaged Snowden Mining Industry Consultants (Snowden) to prepare a resource estimate for the Selinsing Gold Project, Pahang State, Malaysia. The project is at an advanced stage of exploration and is not yet considered a development or production property. Resource reporting was undertaken in accordance with CIM Mineral Resource and Mineral Reserve definitions that are referred to in National Instrument (NI) 43-101, Standards of Disclosure for Mineral Projects. This Technical Report has been prepared in accordance with the requirements of Form 43-101F1.

Moncoa's request to undertake the resource estimate follows on from recommendations contained in the Technical Report, dated June 2006 prepared by Snowden. Moncoa completed a validation programme of validation RC drilling that confirmed the suitability of historic drill data for use in the generation of the resource estimate

The Selinsing deposit occurs along the north striking Raub Bentong Suture, a major tectonic feature that runs through peninsular Malaysia. The deposit is hosted by a series of auriferous quartz veins and stockworks of quartz veinlets in a package of sheared calcareous epiclastic sediments.

The area surround Selinsing has a rich endowment of gold mineralisation with two nearby mines, Raub and Penjom, both having production and resources of over one million ounces, indicating the regional potential of the Raub Bentong Suture. Mining at Selinsing commenced prior to 1888 and has operated intermittently through to 1996. Underground and open cut mining, together with tailings treatment, has produced approximately 85,000 ounces of gold during this period. Current tailings treatment using heap leach extraction has produced over 1,000 ounces per annum since 2003.

Three dimensional (3D) resource modelling methods and parameters were adopted in accordance with best practice principles accepted in Canada. A geological volume model was created from the drillhole logs and interpretations supplied by Moncoa. Statistical and grade continuity analyses were completed in order to characterize the mineralisation and were subsequently used to develop grade interpolation parameters. These were applied to the recognised mineralised units.

Datamine software was used for generating the 3D block model and subsequent grade estimates. Multiple Indicator Kriging (MIK) was used to estimate gold grades into the block model. A bulk density model was generated by Snowden using data collected by Moncoa. Snowden has made no allowance for historic mining at Selinsing in the resource estimate.

A Mineral Resource classification scheme consistent with CIM guidelines (CIM 2004) was applied. The estimates are categorised as Indicated and Inferred Mineral Resources and reported above a grade cut-off that is appropriate for a potentially bulk mineable deposit (Table 1.1).

At a block cut-off grade of 0.75 g/t Au the currently defined Selinsing Indicated Mineral Resource is 3.63 million tonnes grading 1.76 g/t Au for a total of 205,000 ounces of Au. At the same Au block cut-off grade, the currently defined Inferred Mineral Resource is 7.7 million tonnes grading 1.34 g/t Au for a total of 332,000 ounces of Au.

Snowden considers that this resource estimate is appropriate for use in a Scoping Study or a Pre Feasibility Study.

Cut-off (Au g/t)	Classification	Oxidation	Tonnes (kt)	Grade (Au g/t)	Metal (kOzs)	Classification	Oxidation	Tonnes (kt)	Grade (Au g/t)	Metal (kOzs)
0.75		Oxide	2,100	1.78	120		Oxide	390	1.25	10
0.75	Indicated	Sulphide	1,530	1.72	85	Inferred	Sulphide	7,300	1.35	320
0.75		Total	3,630	1.76	205	_	Total	7,690	1.34	330

 Table 1.1
 Selinsing Classified Mineral Resource, as at August 2006

## 2 Introduction and Terms of Reference

Snowden Mining Industry Consultants (Snowden) was engaged by Moncoa Corporation (Moncoa) to calculate a resource estimate at the Selinsing project located within Pahang State of Malaysia. Resource estimation work utilised accepted best practice and reporting was carried out in accordance with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Mineral Resource and Mineral Reserve definitions that are appended to Canadian National Instrument (NI) 43-101 (Standards of Disclosure for Mineral Projects). This Technical Report has been prepared in accordance with the requirements of Form 43-101F1.

This report documents the Selinsing resource estimate as per recommendations made in the June 2006 independent Technical Report entitled "Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report" prepared in accordance with NI 43-101 by Michael C. Andrew MAusIMM, BSc of Snowden Mining Industry Consultants Pty Ltd. The June 2006 Technical Report is available on the SEDAR website at <u>www.sedar.com</u>. Parts of the June 2006 report have been reproduced in their entirety as only the geological interpretation and some drilling and other sampling data has been updated in this current technical report. These repeated parts are italicised.

Mr. Michael Andrew, an employee of Snowden, served as the independent Qualified Person responsible for preparing this Technical Report and undertaking the estimation work.

The author visited the site between the 4th and 7th of April 2006 and between the 13<sup>th</sup> and 16<sup>th</sup> June 2006. Moncoa's drill collars and the geological interpretation were verified and examined respectively. The author inspected the half core that is stored on site and checked the quality of logging performed by Moncoa staff. The validation drill programme was reviewed and sampling and drill performance monitored.

The geological interpretation was prepared under the supervision of Moncoa geological staff. Moncoa's database is managed by Moncoa staff, and was used as the foundation of the resource estimate.

Snowden gives permission Moncoa to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party's sole risk.

Moncoa's Technical Reports and digital data files, provide the foundation for Section 17 (Mineral Resources and Mineral Reserve Estimates).

The author has not reviewed the land tenure situation and has not independently verified the legal status or ownership of the properties or any agreements that pertain to the Selinsing Project. Land tenure aspects are described in previous Technical Reports submitted by Moncoa. The results and opinions expressed in this report are based on the author's field observations and assessment of the technical data supplied by Moncoa. Snowden has carefully reviewed all of the information provided by Moncoa, and believe it is reliable from the checks made.

The coordinate system used for the project grid is based upon the Universal Transverse Mercator (UTM) projection.

All measurement units used in the resource estimate are metric and the currency is expressed in Canadian dollars unless stated otherwise.

# 3 Disclaimer

No disclaimer statement was necessary for the preparation of this report. The author has not relied upon reports, opinions or statements of legal or other experts who are not Qualified Persons.

# 4 Property description and location

Material relevant to this section is contained in the following Technical Report:

"Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report" prepared in accordance with NI 43-101 by Michael C. Andrew MAusIMM, BSc of Snowden Mining Industry Consultants Pty Ltd. This Technical Report may be viewed on the SEDAR website at <u>www.sedar.com</u>.

5 Accessibility, climate, local resources, infrastructure and physiography

# 6 History

# 7 Geological setting

# 8 Deposit types

### 9 Mineralisation

#### 9.1 Extraction

Gold mineralisation is in the form of very fine gold particles commonly associated with pyrite and arsenopyrite and rarely with chalcopyrite. Coarse visible gold occurs in quartz veins within the shear zone and these can have gold grades well in excess of an ounce per tonne. These high-grade quartz veins can be over a metre in true thickness and are quite continuous along strike and down-dip (Figure 9.1 and Figure 9.2). These veins have been traced up to 300 m along strike and over 200 m down-dip. Lower-grade gold mineralisation is found in the intensely deformed and crushed haloes around the quartz veins within the shear zone. Disseminated pyrite mineralisation in the crushed country rock in the shear zone is common and this mineral, along with the presence of eubedral arsenopyrite, is a good indicator of higher gold grades.

Figure 9.1 Quartz veins in west wall of open pit







A review of the data and geological interpretation on site with Moncoa staff suggested a plunge control on the mineralisation with a gentle to moderate southerly plunge inferred. Figure 9.3 is a cross section from the Selinsing Project (updated from the Technical Report) 1980 mN section line, showing the drilling and interpreted mineralised structures.



Figure 9.3 Selinsing cross section 1980 mN (Moncoa updated August 2006))

Table 9.1 summarises the significant intersections, over 5m in intersected thickness, using a lower grade cut off of 0.5 g/t Au, from the drilling presented in Figure 9.3. The bulk of the drilling is drilled normal to the dip of the mineralisation, so that the bulk of the intersections are close to true thickness.

Hole ID	Hole Type	From	То	Thickness	Au
SELRC0467	RC	33	58	25	7.97
SELRC0207	RC	23	45	22	2.38
SELRC0354	RC	21	36	15	1.79
SELDD0002	DD	38.28	50.79	12.51	26.06
includes	DD	40.58	41.17	0.59	386.00
SELRC0188	RC	54	66	12	17.94
includes	RC	57	58	1	117.00
includes	RC	58	59	1	28.10
includes	RC	59	60	1	21.60
SELRC0208	RC	44	56	12	1.72
SELRC0158	RC	56	65	9	6.46
SELRC0354	RC	39	48	9	0.88
SELRC0450	RC	29	38	9	2.98
SELRC0036	RC	17	25	8	2.12
SELRC0098	RC	13	21	8	1.14
SELRC0098	RC	38	46	8	1.29
SELRC0386	RC	36	44	8	1.55
SELRC0049	RC	83	90	7	5.65
SELRC0117	RC	56	63	7	2.29
SELRC0441	RC	150	157	7	1.26
SELRC0457	RC	21	28	7	2.32
SELRC0457	RC	38	45	7	1.21
SELRC0494	RC	49	56	7	13.52
includes	RC	54	55	1	70.00
SELRC0003	RC	68	74	6	1.74
SELRC0188	RC	35	41	6	1.56
SELRC0206	RC	43	49	6	2.31
SELRC0207	RC	50	56	6	1.34
SELRC0453	RC	18	24	6	1.83
SELRC0479	RC	133	139	6	10.60
SELRC0479	RC	145	151	6	13.21
SELRC0049	RC	42	47	5	0.92
SELRC0117	RC	75	80	5	10.73
SELRC0117	RC	101	106	5	44.80
includes	RC	102	103	1	42.60
includes	RC	103	104	1	142.00
includes	RC	104	105	1	37.20

 Table 9.1
 Summary of intersections from section 1980 mN

Hole ID	Hole Type	From	То	Thickness	Au
SELRC0117	RC	107	112	5	1.44
SELRC0224	RC	37	42	5	1.62
SELRC0354	RC	51	56	5	0.77
SELRC0386	RC	5	10	5	2.14
SELRC0449	RC	33	38	5	1.15
SELRC0450	RC	39	44	5	1.98
SELRC0457	RC	31	36	5	5.07
SELRC0457	RC	47	52	5	18.30
includes	RC	48	49	1	78.20
SELRC0479	RC	114	119	5	1.34
SELRC0494	RC	59	64	5	9.99
SELRC0494	RC	72	77	5	2.23

# 10 Exploration

#### 10.1 Extraction

Moncoa has not undertaken any exploration at Selinsing. All work to date has been undertaken by the previous owners of the Selinsing Project. Exploration at Selinsing has been undertaken since 1995 when initial rock chip soil and channel sampling was undertaken. This work was then followed by three phases of drilling over the Selinsing resource and two phases of drilling over the tailings resource. Figure 10.1 is a drill hole location plan with the drill hole paths colour coded such that air core (AC) traces are in blue, reverse circulation (RC) traces are in green and diamond drilling (DD) traces are in red. Also shown are the lease boundaries as white lines. The AC drilling was carried out in the tailings material and includes some shallow 2 m auger holes.



Figure 10.1 Selinsing drill hole location plan

Table 10.1 summarises the drilling undertaken as part of exploration at the Selinsing project. Snowden has reviewed the available documentation and discussed the drilling programme with Moncoa geologists who were also involved with the work, and concludes that exploration was undertaken in a competent and professional way at the Selinsing Project. Drilling over the main part of the Selinsing Project is on a 20 m by 20 m grid.

Date	Campaign	Hole numbers	Drilling type	Total meters	Average meter per hole
1996	Phase 1 Tailings	SELAC001 to SELAC056	AC	871.2	15.6
1996	Phase 2 Tailings	SELAG001 to SELAG033	Auger	66	2
1996	Phase 1 Selinsing	SELRC01 to SELRC280	RC	23529	83.7
1997	Phase 2 infill Selinsing	SELRC295 to SELRC509	RC	15312.5	72.6
1996 to 1997	Selinsing	SELDD001 to SELDD013	DD	1863.45	143.3

#### Table 10.1Exploration drill summary

#### 10.2 Current Exploration Strategy

At the Selinsing Project, Moncoa's future exploration activity will be focussed on extending the mineralisation down-plunge to the south and upgrading portions of the resource from Inferred to Indicated.

# 11 Drilling

#### 11.1 Extraction

The following sections detail the key aspects of exploration drilling undertaken at the Selinsing Project

### 11.2 Collar surveying

All drill hole collar locations were surveyed by the TRA survey team using a Leica TC 1100 total station survey instrument. The accuracy of this instrument is stated to be  $\pm 1$  second of angular measurements for distances up to 1.5 km. The survey information was stored in Liscad SE software, version 3.2., prior to downloading to Micromine software where the data is stored for modelling. Drillhole locations in the database are recorded in mine grid coordinates. The coordinates are accurate to  $\pm 10$  cm. Survey information was transferred electronically from Liscad to the Micromine database to prevent handling errors.

#### 11.3 Downhole surveying

Drillholes were surveyed down the path of each hole using an Eastman single shot wire-line camera. Downhole surveying only started in late 1996 so a large proportion of holes drilled before this time are not surveyed downhole because the holes have collapsed. All DD hole paths have been surveyed but only one RC hole has a downhole survey data. No change in azimuth with depth is observed in the supplied downhole survey data.

Figure 11.1 shows the changes in dip with drill hole depth for the available data downhole data. This plot reveals that drill hole dip generally becomes more horizontal with depth, which is a common effect in inclined drilling.



Figure 11.1 Changes in hole path dip with increasing downhole depth

#### 11.4 Core recovery

The average core recovery for the 13 DD holes in the deposit is 92%. This average includes intervals from the start of the hole where recovery would be expected to be poor and some logged cavities.
## 11.5 Security procedures

The author cannot comment on past procedures used to ensure the security and integrity of sampling of the drill core. The author has advised Moncoa staff to make the core storage facility secure as it is currently unsecured.

## 11.6 Comments on drilling

The author found that industry standard logging conventions were used by Moncoa to record information from the drill core. The core is logged in detail onto paper records, and the data is then entered into the digital project database. The core is also photographed before being sampled.

While visiting the site in April 2006, the author reviewed the core logging procedures and found them to be done in a systematic fashion, competently and in accordance with industry standards. Drill core was found to be well handled and maintained. The core is stored on racks in a core shed located at the Selinsing Project.

The lack of downhole survey data for the RC data indicates that there is currently some degree of spatial inaccuracy in the RC data which needs to be quantified for any future resource evaluations.

## 11.7 Survey data update

Moncoa staff located additional downhole survey data after the referenced technical report had been completed. The data was supplied to Snowden and the database was updated. Figure 11.2 shows the effect of the additional survey data on the drilling on section 1980 mN. The blue traces represent drillholes with the original survey data, while the red traces represent drillholes with the updated survey data.



Figure 11.2 Updated survey data on section 1980 mN

The incorporation of the additional survey data shows that the drillholes have typically tended to flatten and lift with depth. This usually occurs as a result of the rod string trying to be normal to the fabric of the local strata.

## 11.8 Validation drilling

In accordance with recommendations made in the Independent Technical report dated June 2006 and prepared in accordance with NI43-101, Moncoa undertook a programme of targeted RC drilling to confirm the tenor of the historical RC data. Nine drillholes, SELRC0510 to SELRC0518, located as summarised in Table 11.1, were drilled and the significant results summarised in Table 11.2. The holes were drilled between  $13^{th}$  and  $17^{th}$  of June 2006. Results greater than 0.5 g/t Au and with a down hole thickness of greater than 5m are reported; no top cutting has been applied. Holes are drilled inclined at 60 degrees with an azimuth of 270 (local grid) and are designed to normally intersect the mineralisation, so that the down hole thickness, reflects the true thickness. The holes were not surveyed.

Hole ID	Northing (m)	Easting (m)	RL (m)	Depth (m)	Dip	Azimuth
SELRC0510	1990.2	790.5	500.94	60	60	270
SELRC0511	1990.2	810.2	500.87	66	60	270
SELRC0512	2009.8	790.6	501.30	72	60	270
SELRC0513	2009.8	809.9	500.78	72	60	270
SELRC0514	2030.3	790.7	499.18	60	60	270
SELRC0515	2030.0	810.5	499.55	72	60	270
SELRC0516	2051.7	789.8	499.20	54	60	270
SELRC0517	2050.4	809.8	499.99	72	60	270
SELRC0518	1969.7	792.2	500.94	72	60	270

Table 11.1Drill hole location summary (local grid)

Hole ID	Hole Type	From (m)	To (m)	Down hole Thickness (m)	Au (g/t)
SELRC0510	RC	23	29	6	8.33
Includes		27	28	1	31.40
SELRC0510	RC	46	60	14	3.15
Includes		39	40	1	41.70
Includes		59	60	1	22.40
SELRC0511	RC	41	49	8	6.60
Includes		48	49	1	36.80
SELRC0512	RC	32	64	32	1.72
SELRC0513	RC	66	72	6	1.83
Includes		61	62	1	20.40
SELRC0514	RC	31	42	11	0.95
SELRC0515	RC	60	69	9	9.15
Includes		65	66	1	35.80
SELRC0516	RC	24	35	11	4.84
SELRC0518	RC	2	14	12	2.45
SELRC0518	RC	25	36	11	4.02
SELRC0518	RC	42	49	7	12.30
Includes		46	47	1	52.90
SELRC0518	RC	53	67	14	15.52
Includes		54	55	1	51.90
Includes		57	58	1	60.00
Includes		61	62	1	38.90

#### Table 11.2Drill assay summary results

Snowden supervised the drilling and sampling

## 12 Sampling method and approach

## 12.1 Extraction

## 12.2 RC drilling

23,557 RC drill samples were collected for assaying purposes at the drill site by splitting bulk samples from each metre drilled using a 75%: 25% three stage riffle splitter. The splitter reject was returned to a numbered bag whilst the smaller split sample was collected in a calico bag and taken to the sample preparation laboratory. If the sample was found to be damp or wet the whole one metre sample was not split in the riffle splitter in order to prevent carry-over contamination of the next sample. In this case, the sample was split by using a piece of PVC pipe to take a cylindrical sample through the entire length of the bulk sample. This sample was then placed in its numbered calico bag as usual. Wet or damp samples were flagged in the geological log.

## 12.3 DD drilling

A total of 1,543 DD samples were collected for assaying purposes. The following points summarise the core sampling procedures described by Moncoa staff and observations made by the author during the April 2006 site visit:

- Core was placed in boxes of appropriate size (NQ, HQ) according to the core diameter.
- At the drill site, the core boxes were marked with the following information:
  - Hole number (e.g. Hole No. 2)
  - Box number (e.g. 23 -> R-97-2-23)
- Hole depths were marked with wooden blocks at the end of each core barrel run.
- Boxes were stored in the core shack in the Selinsing camp.
- Geologists measured the core and calculate the percent recovery between blocks.
- Core boxes were photographed.
- Geologists produced paper and digital logs (Husky Hunter), documenting lithology, alteration, alteration intensity, rock color, texture, grain size, structures, type of mineralisation and mineralisation intensity.
- Digital logs were printed out and reviewed in detail for accuracy.
- Mineralised sections of core were marked up by geologists.
- Core sample intervals were halved using a diamond blade saw. Geologists supervised the cutting to ensure the mineralisation is properly halved.
- The portion of core to be assayed was placed in a plastic sample bag.

## 12.4 In situ density

To determine rock in situ density, short sections of drill were cross-cut using a diamond tipped core saw so that the sample was a cylinder. Any core, which broke during the sawing process, was not used for density determinations. The diameter of the core was measured to see if there was a noticeable difference from the expected diameter and then weighed on an electronic weighing machine that was accurate to 0.01 g. In situ density was then computed from the volume and mass of the test samples.

Only dry core was used for these calculations so that dry bulk densities values could be calculated. Snowden noted that there were three main ore types which make up the deposit. These are quartz (vein rock), breccia and stockwork (halo-mineralisation). From four mineralised intersections in holes SELDD001 and DD003, it was determined that the approximate deposit volumes of these three ore types are 14.8%, 40.5% and 44.7% respectively. Average density determinations collected from the field data show these rock types to have density values as summarised in Table 12.1. The average density of fresh mineralisation is therefore estimated to be 2.70  $t/m^3$  while the average for oxide mineralisation is 2.53  $t/m^3$ .

Mineralisation type	Oxide density (t/m³)	Fresh density (t/m³)	Proportion of deposit volume
Vein quartz	2.60	2.65	14.8 %
Breccia	2.64	2.67	40.5 %
Stockwork	2.42	2.74	44.7 %
Average	2.53	2.70	100.0 %
Barren	2.18	2.68	

#### Table 12.1 Summary of Selinsing density measurements

### 12.5 Comments on sampling method and approach

Due to the historic nature of the sampling, the author cannot comment directly on the sampling methods employed at the Selinsing Project. However, from discussions Snowden had with Moncoa staff who were present during the historic drilling programmes, Snowden has no reason to suspect that protocols and procedures that were followed were sub-standard in terms of industry accepted sampling practices.

### 12.6 Validation drilling

#### 12.6.1 Sampling

600 samples were collected over 1 m intervals from the surface. The drill cuttings were collected from a cyclone (Figure 12.1) and then passed through a three-tier riffle splitter (Figure 12.2, Figure 12.3). A 2 kg to 3 kg primary sample was collected from each interval in a calico sample bag. Each calico bag was marked with a sample number and the reject sample was also collected in large plastic sample bags that were marked with the drillhole identifier and downhole interval depths for each sample. The reject samples were retained and stacked in order near the drillhole collar.



Figure 12.1 Rig mounted cyclone







Figure 12.3 Sample being split

Small geologically representative samples of the drill cuttings were collected for logging and the chips retained in plastic cups for reference (Figure 12.4). The cups were labelled with the drillhole identifier and the downhole interval depths for each sample. Logging of the material was completed at the drill rig.

Figure 12.4 Reference sample



Snowden noted that care was taken at all stages of the sampling, but recommends that more time be taken when feeding the riffle splitter as the current protocol leads to blocking of the splitter when the cuttings are partially moist. Figure 12.5 shows material being pushed through the splitter following a blockage. Ideally the splitter should be fed using a hopper that is the same size as the width of the riffles and material fed to the splitter at a rate that allows splitting without flooding or blocking of the riffles.



Figure 12.5 Pushing material through the splitter

Snowden noted that all equipment was regularly cleaned between samples with the cyclone being cleaned on at least every 2<sup>nd</sup> rod change, or as required (Figure 12.6).

Figure 12.6 Cleaning cyclone



Ground water was encountered in all holes drilled but the drilling equipment did recover a dry sample to a depth of approximately 60 m downhole. At greater depth the ingress of groundwater into the hole was such that dry samples could not be maintained. Snowden and Moncoa staff decided to terminate the hole at this point, rather than continue to collect samples of poor quality where fines were likely to be lost in the sample handling process. For example, Figure 12.7 shows a wet sample being collected off the cyclone, while Figure 12.8 shows the wet sample being handled and the loss of fines material as water is lost from the sample bag as it is handled.



Figure 12.7 Collecting wet sample off cyclone

Figure 12.8 Handling wet sample



Snowden recommended that core drilling be adopted once wet sampling is encountered, but that was not implemented as the aim of the programme in this instance was to validate the historical RC drill data. Consideration to the use of large woven bags should be given for any future RC drilling at site, which would allow the water to seep from the bag.

## 13 Sample preparation, analyses and security

### 13.1 Extraction

Sample preparation for samples collected up to drill hole SELRC280, was undertaken by TRA at a sample preparation facility at Kuala Lipis. This facility was inspected by MRT in March 1997 and problems with some of the equipment were identified. A new sample preparation facility was subsequently commissioned at the Selinsing Project site in April 1997.

## 13.2 Sample preparation

RC samples were dried in the normal manner then split through a 50:50 bench scale riffle splitter prior to pulverising. Half of the original 2 kg sample was discarded because the pulverising bowl was limited to maximum capacity of approximately 800 g. For diamond core samples, half of the length to be sampled was crushed using an Essa jaw crusher and then sampled as per the RC samples. If the core was wet the sample was returned to its bag and dried prior to splitting. Each sample was pulverised in an Essa RM2000 pulveriser for four minutes. This pulveriser has the ability to crush the material down to 95% passing 75 microns. The 250 g samples were then collected and dispatched as normal. The site laboratory prepared all of the new RC and diamond core samples from the Phase 2 drilling programme, which included the range of holes SEL-RC 281 to 509, SEL-DD001, and SEL-DD003 to 13.

## 13.3 Security measures

The author cannot comment on security measures employed with the samples dispatched from the Selinsing Project due to the historical nature of the sampling. However, the author has no reason to suspect that industry standard protocols and procedures were not followed. Samples were dispatched to the Assaycorp laboratory at Kuching for analysis.

# 13.4 Laboratory certification, sample preparation, assaying and analytical procedures

For the older samples from the Phase 1 drilling programme, Assaycorp carried out a second pulverisation due to the coarse nature of the samples that TRA prepared with its horizontal axis Keegor Mill. The 250 to 300 g samples were reground to 90% passing 100 microns and then a 50 g charge was taken for fire assaying. The pulverising was done in either a disc grinder or a Keegor Mill. For the Phase 2 samples no regrind was necessary and a 50 g charge was split out immediately for assay. The fire assayed material then underwent aqua regia digest followed by atomic absorption spectra (AAS) analysis for the final result. Assay precision (repeatability) was quoted at  $\pm 15\%$  with a minimum detection limit of 0.01 parts per million (ppm). Assaycorp was instructed to re-assay samples with results > 1 g/t, until another result within 15% was obtained. Snowden does not endorse this practice.

## 13.5 Quality control measures

TRA did not employ a systematic or independent QAQC programme with the samples submitted to Assaycorp. Some check programmes were implemented after the MRT visit in 1997 which included:

- 1. Assaycorp Kuching assays checked by MRT for repeatability.
- 2. Intra-laboratory checks of Assaycorp vs Genalysis in Perth, WA for systematic bias.
- 3. Assaycorp checks on repeats of samples sent to Genalysis.
- 4. Field duplicates on coarse split ore grade material from the pit.
- 5. Re-splits resubmitted blind after preparation at Kuala Lipis.

- 6. Assaycorp Kuching quality control repeats (not blind).
- 7. Assaycorp Kuching results checked by Assaycorp Pine Creek.

Not all the data was available from the check programmes instituted.

### 13.6 Blank performance

In addition to the above checks, blank materials were inserted with the sample stream to test for cross-contamination between samples. A total of 40 blanks were submitted and the results are plotted in Figure 13.1. The results are too few for definitive conclusions to be drawn but the one result of almost 7 g/t Au indicates a contamination problem in at least one sample.



Figure 13.1 Blank sample results

### 13.7 Umpire assays

A total of 42 samples were submitted to Genalysis in Perth for umpire analysis. Figure 13.2 shows a log QQ plot of the umpire data and also a precision plot (pair mean, half absolute difference) of the data. The QQ plot indicates a positive bias towards the Assaycorp data in the grade range of 1 to 10 g/t Au such that the Assaycorp data is generally higher grade than the Genalysis results in this grade range. This bias is reflected in the precision plot over the same range where approximately 25% of the data is over the 20% precision line. As there are no common standards used by both labs no firm conclusion can be drawn as to which results are accurate.





## 13.8 Assay repeat data

A total of 6,982 repeat gold analyses were undertaken on pulps in the primary laboratory; the results are presented as QQ and precision plots in Figure 13.3.



Figure 13.3 Lab repeat data Log QQ and precision plot

The QQ shows good correlation between the original and repeat data and the precision plot reveal acceptable repeatability with only a 602 of the 6,892 results exceeding a half-absolute relative difference of  $\pm$  20% of the pair mean.

# 13.9 Opinion on the adequacy of sampling, sample preparation, security and analytical procedures

The author considers the sampling practices at Selinsing not to be in accordance with the CIM guidelines since insufficient systematic and independent QAQC data has not been included with the sample data that will be used for resource estimation purposes. In particular, the QAQC data

that is available allows assessment of repeat precision but not the accuracy of results. Assuming umpire results are accurate, the check-assay data suggests that the Kuching laboratory may be overstating gold grades in the 1 to 10 g/t Au range. However, this indication cannot be confirmed because certified reference materials were not submitted to assess the accuracy of the results from the two laboratories.

The repeat pulp-assay data suggests that the primary laboratory has good repeatability but again the lack of independent standards means that the accuracy of the Kuching lab cannot be gauged.

## 13.10 Validation drilling

Snowden supervised the drilling and sampling. Industry standard QAQC protocols were followed which included certified reference materials comprising a range of standards and a blank which were independently inserted into the sample stream prior to analysis. Field duplicates were also taken during the drilling programme. The samples were submitted to the Ultra Trace Pty. Ltd. (Ultra Trace) laboratory located in Perth, West Australia. Samples underwent a 40 g Fire Assay with analysis by ICP. Snowden has reviewed the programmes QA/QC data and found the results to be acceptable for the style of mineralisation

#### 13.10.1 Sample Preparation

The entire 2 kg to 3 kg sample that was collected was dispatched to the Ultra Trace laboratory, and no sample preparation was undertaken on site. Wet samples were dried then split prior to being dispatched.

#### 13.10.2 Security measures

Samples were collected at the end of each days drilling and stored on site in a secure storage facility. The storage facility was made secure after a recommendation from the initial site visit by Snowden in April 2006. Samples were securely stored on site until they were escorted to couriers for shipment to the laboratory in Australia.

## 13.10.3 Laboratory certification, sample preparation, assaying and analytical procedures

Upon receipt, samples are sorted and then reconciled against the accompanying paperwork. The samples are then be dried in either a natural gas fired oven or an electrically operated convection oven.

Ultra Trace employ a single stage mixing and grinding process. In this process, crushing is generally unnecessary unless sample pieces are over about 25mm in size. Ultra Trace use conventional LM2 and LM5 Ring Mills for pulverising the samples. These mills are time proven and reliable for this stage of the process. By use of various capacity bowls in the LM2 and LM5 mills, Ultra Trace are able to efficiently pulverise samples from a few grams in size to approximately 4 kg. Samples larger than this will either be split to obtain a 4 kg sample or pulverised in 4 kg lots and recombined.

A target of 95% passing  $75\mu m$  has been set for pulp size. A barren wash of the bowls using silica sand is routinely carried out before and after processing samples.

The firing and cupellation of the samples follows the classical, lead collection, fire assay process, using a nominal 40g charge, with the gold, platinum and palladium (platinum and palladium are not reported) being collected. The noble metal prills are parted with nitric acid and the gold, platinum and palladium are dissolved in aqua regia and diluted for ICP analysis.

#### 13.10.4 Quality control measures

As previously described, the QAQC programme comprised the insertion of certified reference materials (standards), blanks, and the generation of field duplicates

#### Blank performance

A total of 10 blanks were submitted with the sample stream to test for crosscontamination between samples. The blank results are plotted in Figure 13.4. The results indicate the lab has good hygiene.



Figure 13.4 Blank sample results

#### Standard Performance

Five separate standards were inserted into the sample stream, their values are summarised in Table 13.1. Each standard was inserted ten times into the sample stream, which together with the blanks constituted a total insertion rate of 10 % of the samples submitted. Figure 13.5 to Figure 13.9 depict the results of each standard.

Table 13.1	Standard summary
------------	------------------

Standard ID	Certified Value Au g/t
G02	1.2
G302-2	2.5
G300-10	1.99
G905-10	6.75
High Grade	21.57

Figure 13.5 Standard G02



Figure 13.6 Standard G302-2



Figure 13.7 Standard G300-10



Figure 13.8 Standard G905-10







Overall the mean of standards results are 3 % to 5 % higher than the certified values, except for the high grade standard which is approximately 2 % lower than the certified value. Snowden considers the performance of the CRM's to be within acceptable limits.

#### Laboratory repeats

A total of 126 repeat gold analyses were undertaken on pulps in the primary laboratory; the results are presented as QQ and precision plots in Figure 13.3. The QQ plot shows good correlation between the original and repeat data and the precision plot reveal acceptable repeatability with only a 13 of the 126 results exceeding a half-absolute relative difference of  $\pm$  20% of the pair mean.





#### **Field Duplicates**

A total of 58 field duplicates were taken during the drilling programme; the results are presented as QQ and precision plots in Figure 13.3. The QQ plot displays moderate correlation between the original and duplicate data and the precision plot reveals acceptable repeatability with 19 of the 58 results exceeding a half-absolute relative difference of  $\pm$  20% of the pair mean. The bulk of those exceeding the  $\pm$  20% pair mean occur below 0.5 g/t Au. Snowden considers the results to be acceptable for this style of gold deposit.



Figure 13.11 Field duplicate data Log QQ and precision plot

## 14 Data verification

## 14.1 Extraction

## 14.2 Verification by author

While on site, the author reviewed the database, the geological interpretation, the collection of drill hole data, surface exposure, the preparation laboratory and the drillholes in the core sheds. While visiting the core sheds, core from the following drillholes was inspected and compared to the drill logs:

- SELDD001
- SELDD002
- SELDD003
- SELDD007
- SELDD009

Selected core intervals from these holes were also sampled by the author for verification of mineralisation (Table 14.1). In all instances the lithology, mineralisation, alteration and sample intervals were found to agree with the drill logs.

The verification samples were submitted to UltraTrace laboratories in Perth WA for fire assay. The results of the confirmatory sampling are listed in Table 14.1 and confirm the presence of gold at the residual drill cores. While there are some significant differences between the original Kuching laboratory results and the UltraTrace verification samples, the author considers that this variation is consistent with expectations for results from the second half of a drill core in gold mineralisation. Of note is the fact that the UltraTrace repeats (while only two in number) demonstrate low precision, in contrast to the 7,000 pulp repeats depicted in Figure 13.3.

Sample HoleID (interval)	UltraTrace Au ppm	Kuching Au ppm	Diff %
SEL DD001 (76.40-78.16 m)	12.8	29.3	-129
SEL DD002 (41.33-42.33 m)	0.552	9.4	-1603
SEL DD003 (51.66-52.81 m)	11.3	20.8	-84
SEL DD003 (63.73-64.72 m)	8.31	3.82	54
SEL DD003 (63.73-64.72 m) Rpt	6.73	3.82	43
SEL DD007 (133.34-134.24 m)	8.09	7.65	5
SEL DD007 (139.62-140.60 m)	3.98	4.3	-8
SEL DD007 (176.52-177.97 m)	7.39	8.89	-20
SEL DD009 (23.20-24.70 m)	2.35	11.2	-377
SEL DD009 (23.20-24.70 m) Rpt	1.6	11.2	-600

Table 14.1Confirmatory sampling

### 14.3 Opinion on the verification of data

The author considers that the verification work completed by Moncoa, previous reviewers and Snowden is of a sufficient level to allow the use of the database in a CIM compliant resource estimate, provided that the issue of insufficient QAQC is addressed. In particular, the accuracy of the database assays needs to be quantified as independent check results indicate the possibility of significant grade bias in the primary laboratory data.

## 14.4 Opinion on the validation drilling

Snowden considers that the validation drill programme has confirmed the tenor of the historical RC data and its suitability for use in a resource estimate which can be classified according to CIM guidelines. The lack of sufficient QAQC data is still a risk and is taken into account during the resource classification.

## 15 Adjacent properties

Material relevant to this section is contained in the Technical Report referenced above.

## 16 Mineral processing and metallurgical testing

### 16.1 Extraction

This summary of processing and metallurgical testing has been extracted from the TRA 'prefeasibility' report. Note that this report is material to this technical report but in the authors opinion the study does not meet the requirements to define Mineral Reserves as defined under CIM guidelines, primarily due to the inability to report Mineral Resources as discussed in this report.

## 16.2 Open pit ore

Samples from 25 RC drillholes and four diamond drillholes (32 m of HQ core) have been used to characterise the metallurgical extraction of gold from the Selinsing deposit above the 380 mRL. Testing has included:

- gravity recovery and cyanide leach recovery of gold
- oxygen addition to improve leach kinetics
- cyanide destruction of probable plant effluent
- slurry viscosity measurements
- thickening of leach plant tailings
- fine grinding characteristics of lump ore from the open cut
- fine grinding characteristics of diamond drill core

The grinding test showed that Mill Work Indexes for diamond drill core, taken from 60 to 100 m depth, are approximately 50% higher than the indexes estimated from lump ore samples collected from the surface of the existing open cut mine. A Ball Mill Work Index of 17 kWh/t has been identified as the upper range for power consumption and this value is based on testing of fresh rock diamond core samples. The lower range power consumption is a Work Index of 12 kWh/t, which was estimated for open pit samples. The Ball Mill is equipped with a 1000 kW drive. The Ball Mill and SAG Mill drive motors are understood to be interchangeable, thus it is possible to install the 1200 kW SAG Mill drive to the Ball Mill. The alternative drive motor capacities are summarised in Table 16.1.

Ore Type	Ball Mill Work Index whirs/t	Ball Mill Drive kW	Mill Through put tph	Annual Mill Utilisation hours	Annual Capacity tonnes
Open pit Oxide	12	1,000	83	7,896 (90%)	655,000
Open pit fresh	17	1,000	58	7,896 (90%)	458,000
Tailings	12	1,000	83	7,896 (90%)	655,000
Open pit oxide	12	1,200	100	7,896 (90%)	789,000
Open pit fresh	17	1,200	70	7,896 (90%)	552,000
Tailings	12	1,200	100	7,896 (90%)	789,000

 Table 16.1
 Ball mill capacity calculations

The gravity recovery and leaching test was completed on two suites of samples. The first suite of samples, gathered from eight RC holes, produced very good recoveries for 75% of the holes tested when applying a nominal grind of 80% passing minus 106 microns. Gravity gold recovery results ranged from 14% recovery for the 25% of holes which showed poor overall recoveries, and 42%

recovery for the 75% of holes which showed good overall good recovery. The leach recoveries for a 24-hour residence time of gravity plant tailings averaged 58% recovery for the poor-recovery samples and 87% recovery from the good-recovery samples. For a 48 hour leach time, recoveries averaged 61% and 94% respectively. Overall recoveries averaged 67% and 96% respectively.

The leach kinetics were relatively slow with an improvement of about 7% in leach recovery attributed to the additional 24 hours of leach time. The conclusion from this testing was that the potential for fine gold not liberated from within sulphides could be adversely affecting recoveries. Further testing on these samples applying a finer grind, gravity concentration and cyanide leaching with the addition of oxygen, and evaluation of a whole ore sulphide flotation showed that overall recoveries could be improved for the poorer samples to between 75% and 80% using a gravity/leach/oxygen assist route. The more complex sulphide flotation, fine regrind of the sulphide concentrate followed by cyanide leaching of the flotation concentrate returned in excess of 90% recovery.

The second suite of samples was collected from 17 RC holes and these samples were tested at a grind of 80% passing 75 microns. These samples were collected from within the main zone of mineralisation between 1800 mN and 2200 mN. Testing also included some follow up testing on methods of oxygen addition to the slurry. The finer grind was expected to improve gold liberation. The average total gold recovery for second suite of samples was 92% and this result is favourably comparable with the first set of tests. Some samples still showed poorer overall recoveries in the range 60-75% but these samples represented material north of the main target zone of mineralisation.

As discussed previously, fine gold associated within sulphides was considered as one possible explanation for these poorer recoveries. However, there were also indications that there were possible deficiencies in the gravity recovery testing whereby coarser gold particles (which dissolve more slowly) were allowed to pass through to the leach testing. This deficiency could be due to the inefficiencies of the Knelson concentrator used for the gravity recovery testing. The problem here is that the gravity recovery may appear poorer than reality and as the coarse gold particles dissolve more slowly, these grains biased the leach time dissolution results. The spatial distribution of gravity recovery, 48-hour leach recovery, total recovery and total sulphur for all RC samples are illustrated in Figure 16.1, Figure 16.2 and Figure 16.3 where the recovery values are presented on a bubble chart showing the percentage recovery and sample location.



Figure 16.1 Gravity gold recovery all RC samples (from TRA)



Figure 16.2 Leach recovery (48-hrs) for all RC samples (from TRA)





In summary, the areas of lower overall recovery are substantially outside the main target zone of mineralisation (nominally between 1800 mN and 2200 mN) and whilst the lower recovery results are still inadequately explained, the results do not materially affect the project economics. There are several lower total recovery results (Figure 16.2) within the main zone of mineralisation (65%, 70%) which require some follow up testing.

There are no clear trends in spatial distribution of gravity gold recovery and there does not appear to be any relationship between the presence or absence of sulphides and the degree of gravity recovery and leach recovery. The very low total sulphur concentrations in the metallurgical test samples collected around 720 mE reflects primarily oxide samples from Bukit Selinsing (Figure 16.4).



#### Figure 16.4 Sulphur concentrations for all RC samples

The only factor that appears to be consistent from the testing of all samples is that for open pit ore, gold recovery is maximised by a 48-hour leach time combined with a fine grind (minus 75 microns). This conclusion has significant implications for the leach tank capacity required to achieve the residence time.

Testing to evaluate slurry rheology completed by AMMTEC did not identify any aspects of the slurry which were likely to make it difficult to agitate.

Thickening testing of ore slurries by Superflo Technologies identified the key physical parameters for thickening of the slurry after gravity treatment in order to minimise the required leach tank volumes for the leach section of the plant.

## 17 Mineral Resource and Mineral Reserve Estimates

### 17.1 General

The estimation of Selinsing resources was undertaken by Snowden's Independent Qualified Person Mr. Michael Andrew. Mineral Resources were estimated in accordance with CIM Definitions for Standards of Mineral Resources and Reserves (CIM 2004). Best practice in estimation was also followed

Data was supplied to Snowden by Moncoa geological staff.

Three dimensional (3D) modelling methods and parameters were used in accordance with best Canadian practices. Datamine mining software was used for establishing the 3D block model and subsequent grade estimates. A geological volume model was provided by Moncoa geological staff, derived from the drillhole logs and geological interpretations. Statistical and grade continuity analyses were completed in order to characterize the mineralisation, and were subsequently used to develop grade interpolation parameters. The shear zone between the hangingwall and footwall contacts was the only domain estimated.

MIK was used to estimate gold block grades. A hyperbolic function was applied to the top end of the distribution to limit the impact of grade outliers.

.A mineral resource classification scheme consistent with the logic of CIM guidelines (2004) was applied. The estimates have been categorised as Indicated and Inferred mineral resources and have been reported above a grade cut-off that is appropriate for a potentially bulk mineable deposit. The reporting of mineral resources at Selinsing implies a judgment by the author that the deposit has reasonable prospects for economic extraction, insofar as technical and economic assumptions are concerned. The use of the term "Mineral Resource" makes no assumption of legal, environmental, socio-economic and governmental factors.

No Measured Resources or Mineral Reserves have been estimated at this stage. Infill drilling will be required to advance the geological confidence to a level required for the Measured classification category. Additional studies will be required to finalise technical, economic, legal, environmental, socio-economic and governmental factors. These modifying factors are normally included in a mining feasibility study and are a pre-requisite for conversion of resources to, and reporting of, Mineral Reserves. The CIM Standards describe completion of a Preliminary Feasibility Study as the minimum prerequisite for the conversion of Mineral Resources to Mineral Reserves (CIM 2004).

### 17.2 Database

Moncoa supplied Snowden with four digital files comprising assays, lithology records, collar surveys, and downhole surveys representing the drillhole database.

Other data provided by Moncoa included topographic survey data, density measurements and an oxide/sulphide wireframe surface.

Snowden has assumed that the database as supplied by Moncoa has good data integrity, and has performed only preliminary validation checks to ensure data veracity. These validation checks uncovered minor errors which were communicated to Moncoa and subsequently corrected in the database supplied to Snowden.

## 17.3 Geological interpretation

The digital geological interpretation was provided by Moncoa geological staff. The wireframe interpretation was completed using information from surface mapping and sampling in combination with drillhole data, according to the mineralisation described in Section 9.

Snowden has not made any allowance for historic underground workings in the interpretation. The known extent of the workings does not reach high grade area of the resource (centred on 2000 mN) and as such Snowden does not think it will have a significant impact on the reported resource. Figure 17.1 is a plan view of the known underground workings (bright green) plotted with the drill database, showing the high grade part of the resource centred on 2000 mN.



Figure 17.1 Plan view of known underground workings

Moncoa supplied Snowden with an interpretation which Snowden generated a wireframe model of the Hanging Wall (blue) and Foot Wall (mauve) (Figure 17.2), defining the shear mineralisation between the two contacts. The shear zone was left unconstrained, as a hard boundary interpretation of the lodes was not though to be appropriate to capture the mineralisation adequately. The estimate can be considered to be fully diluted.

Snowden judges that the potential exists for the mineralisation to exist in more discreet, which would result in a reduction in tonnes and an increase in grade at the reported cut-off, although the contained ounces would remain approximately the same. Snowden believes that once production starts at Selinsing this issue can be resolved by reconciliation and geological monitoring of production



Figure 17.2 Hanging Wall (blue) and Foot Wall (mauve) wireframes oblique view

### 17.4 Compositing

Snowden elected to composite the data on two metre downhole intervals in order to preserve the variability in the sampling. Composites were generated downhole from hole collars, honouring the wireframe boundaries (Figure 17.2).

### 17.5 Domained composite statistics

Table 17.1 summarises composite statistics for Au in the shear zone. Log histograms and log probability plots showing the Au distributions are presented in Figure 17.3.

Stat	Shear Zone				
Sa	14,542				
Mir	nimum	0.01			
Ма	ximum	586.5			
N	lean	0.79			
S	t Dev	7.08			
	CV	9.00			
Va	riance	50.11			
Ske	wness	47.18			
	10%	0.01			
	20%	0.01			
ltile	30%	0.03			
ercei	40%	0.04			
at pe	50%	0.07			
ade	60%	0.12			
ld gr	70%	0.22			
le an	80%	0.44			
centil	90%	1.08			
Perc	95%	2.00			
	97.5%	3.87			
	99%	11.32			

Table 17.1	Composite Statistics Au al	4
	composite statistics Au g/	ι



#### Figure 17.3 Log Histogram and Probability Plots



## 17.6 Findings from statistical analysis of domained composites

The grade variability was considered to be too high for a technique such as ordinary kriging with grade capping. MIK (which is much more suited to extremely skewed distributions) was used to restrict the influence of high grade outliers during grade interpolation.

## 17.7 Block model setup

A 3D geology block model was coded using Datamine mining software from the geology wireframes. Blocks were sub-celled to accurately fill and capture the volume of geology wireframes. Table 17.2 summarises the block model parameters.

Model Name	rikselbm.dm					
Dimensions	Х	Y	Z			
Parent Cell	2.5	5 2.5				
Sub block	1.25	2.5 1.25				
Model origin	400	1775	200			
Total parent cells	260	145 150				
Parent discretisation	1	1 1				
	Attribute	Unit	Explanation			
	AU1	g/t	MIK estimate			
Estimated attributes	RELERR	Relative estimation error				
	NUMSAM		Number of samples used in estimation			
	OXID	10=Oxide, 100=Primary				
Assigned attributes	RESCAT	2-Indicated, 3-Inferred				
Assigned attrivutes	DENSITY	Oxide waste 2.18 t/m <sup>3</sup> , Oxide mineralised 2.53 t/m <sup>3</sup> Primary waste 2.58 t/m <sup>3</sup> , Primary mineralised 2.7 t/m <sup>3</sup>				

Table 17.2Block model parameters

## 17.8 Continuity analysis

Snowden generated and modelled semivariograms for 12 percentiles. The percentiles were based on the declustered statistics of the data. The nugget effect was interpreted from the downhole semivariogram. The modelled semivariograms for the primary direction of continuity are presented in Figure 17.4 and the modelled parameters tabulated in

Table 17.3.

The semivariogram models in Figure 17.4 show that:

- mineralisation plunges to the south
- nuggets (as a proportion of standardised unit semivariance) range from 0.29 (70<sup>th</sup> percentile) to 0.6 (99<sup>th</sup> percentile)
- continuity is anisotropic
- some rotational anisotropy was noted with the dip of the mineralisation steepening as the percentile increased.









Percentile			Neurod		Structure 1		Structure 2		Structure 3	
& grade Au g/t	Direction	Orientation	Nugget C <sub>0</sub>	Sill C <sub>1</sub>	Range A <sub>1</sub>	Sill C <sub>2</sub>	Range A <sub>2</sub>	Sill C <sub>3</sub>	Range A <sub>3</sub>	
40	1	24>327			40		90		370	
10	2	-29>042	0.5	0.06	150	0.08	200	0.36	200	
0.02	3	-50>270			15		25		55	
	1	00>000			105		320		3000	
20	2	-40>090	0.37	0.19	70	0.29	3000	0.15	5000	
0.00	3	-50>270			25		90		90	
	1	-40>090			13		40		3000	
30	2	00>000	0.4	0.23	15	0.09	105	0.28	165	
0.041	3	-50>270			10		55		65	
	1	19>336			12		33		270	
40	2	-34>053	0.37	0.19	10	0.09	50	0.35	270	
0.00	3	-50>270			9		32		78	
	1	13>344			10		75		230	
50 0.09	2	-37>065	0.5	0.22	10	0.06	65	0.22	280	
	3	-50>270			15		35		80	
	1	09>005			20		50		160	
60 0 125	2	-59>081	0.45	0.3	15	0.08	40	0.17	75	
0.135	3	-30>280	0.45		20		20		60	
	1	09>007			20		45		98.5	
70	2	-68>073	0.20	0.53	10	0.08	25	0.1	40	
0.235	3	-20>280	0.29		10		12.5		20	
	1	00>000			10		35			
80	2	-70>090	0.3	0.45	10	0.25	20			
0.440	3	-20>270			10		10			
	1	00>010			20					
90 1.02	2	-70>100	0.37	0.63	10					
1.05	3	-20>280			5					
	1	37>344			20					
95 1.97	2	-46>022	0.42	0.58	20					
1.07	3	-20>270			10					
	1	00>000			15					
97.5 2 175	2	-70>090	0.53	0.47	20					
3.175	3	-20>270			10					
	1	37>344			15					
99 6 804	2	-46>022	0.6	0.4	10					
6.894	3	-20>270			5					

Table 17.3 Semivariogram Model Parameters - Au
## 17.9 Upper tail modelling

The upper tail of the distribution was modelled using a hyperbolic function to restrict the influence of high grade outliers on the estimate. A hyperbolic parameter of 1.28 was modelled and this was used in the estimation (Figure 17.5).



Figure 17.5 Upper tail model

## 17.10 Declustering analysis

Declustering of the composite data is required to provide accurate grades for model comparison and validation purposes. Snowden computed multiple declustered means over a range of cell sizes. For each domain a declustering cell size was selected and used to generate declustering weights for each composite. Table 17.4 compares the declustered means with the clustered means for Au. The declustered mean was less than the clustered mean grade and more accurately reflects the actual mean grade of the domain.

Table 17.4Declustered statistics – Au g/t

Au Clustered	Au declustered mean	Percentage
mean (g/t)	(g/t)	difference
0.79	0.58	27%

## 17.11 Estimation parameters

Snowden created an MIK estimate in Datamine and undertook post processing of the result with the GSLIB programme POSTIK. E-type estimates were generated, and as the block size approximates the anticipated SMU, no change of support was modelled.

#### 17.11.1 Kriging Neighbourhood Analysis (KNA)

A KNA study was undertaken in order to assist in selecting block and estimation parameters that minimize conditional bias. In selecting the following model and estimation parameters Snowden was guided by the KNA results, the domain

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geometry and previous model assumptions. The parameters selected as a result of the KNA are:

- an estimation block size of 2.5 mE by 5 mN by 2.5 mRL
- a maximum of 40 samples used to estimate a block
- a minimum of 10 samples used to estimate a block

#### 17.12 Grade models

Au grade block models were generated using MIK as discussed above, and the estimation parameters outlined in Section 17.11.

Block grades were estimated in one pass using search ellipse radii equal to the maximum range of the semivariogram defined for the median indicator. Parent cell estimation (ie. no estimation into subcells) was used and blocks uninformed by the estimate due to sample number constraints remained that way.

#### 17.13 Density

Density values were applied at 2.18 and 2.58 t/m<sup>3</sup> for unmineralised and mineralised oxide material, respectively and 2.68 and 2.7 t/m<sup>3</sup> for unmineralised and mineralised sulphide material, respectively, based upon the supplied oxidation wireframe.

### 17.14 Classification

Snowden classified resource blocks as either Indicated or Inferred based on a combination of the number of samples used to inform the block and the kriging variance of the estimate for each block.

Figure 17.6 shows an oblique view of the model colour-coded by resource class. It can be seen that (as would be expected) the Indicated resource (orange) is focused around the drillholes and the Inferred resources (blue) are peripheral to the drilling. Below 400 mRL all material was flagged as Inferred.



Figure 17.6 Classified model –oblique view

## 17.15 Model validation

Snowden used the following methods to validate the block grade estimates:

- global mean comparison of declustered mean composite grades and tonnageweighted block mean grades
- visual inspection of the model against the input composites
- plots of mean input and block grades on a series of sections and plans throughout the deposit.

Table 17.5 shows a global comparison between the declustered composites and block means (for the entire resource and just for the Indicated blocks) by domain.

Table 17.5 Global mean comparison – Au g/t

Declustered Composite	Block Global	Block Indicated
0.58	0.36	0.55

The global mean comparisons show that the global block mean is significantly lower than the declustered composite mean. When only the Indicated blocks are examined the block mean is only slightly lower than the declustered composite mean.

Visual inspection of block and composite grades on plans and sections showed good correlation between the input data and output values. No obvious discrepancies were noted. Figure 17.7 is an oblique view of the estimate showing the southerly plunging mineralisation controls. Higher grades are warm colours, lower grades are represented by cooler colours

#### Figure 17.7 Oblique vioew -Au block grades



To test the local estimation accuracy, Snowden created validation plots of inputoutput mean grades for each zone. These plots consist of 10 m, 20 m and 10 m slices generated through the deposit along easting, northing and elevation directions respectively. For each slice the mean declustered grade of the samples (blue trace) is compared to the tonnage weighted mean grade of the blocks (red trace) and the number of samples (grey trace). Figure 17.8 shows the Au estimate validation plots for material above 400 mRL.







Relatively good correlation with input composite data is displayed. As shown in the northing plot there is a spike in the grade between 1900 mN and 2050 mN, where the bulk of the high grade mineralisation occurs. Portions of the graphs where the block grades deviate from the composite grades are generally associated with areas of low data, as expected.

#### 17.16 Resource report

A Mineral Resource classification scheme consistent with CIM guidelines (CIM 2004) was applied. The estimates have been categorised as Indicated and Inferred mineral resources and have been reported above a grade cut-off that is appropriate for a potentially bulk mineable deposit.

At a cut-off grade of 0.75 g/t Au the currently defined Selinsing Indicated Mineral Resource is 3.63 million tonnes grading 1.76 Au for a total of 205,000 ounces of Au. At the same Au block cut-off grade, the currently defined Inferred Mineral Resource is 7.7 million tonnes grading 1.34 g/t Au for a total of 332,000 ounces of Au.

### 17.17 Cut-off determination

Snowden has elected to use a 0.75 reporting cut-off. Snowden considers the cut-off grade at which the resource will be reported at in the future will change to reflect the results of studies into the economic extraction of the Selinsing resource.

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Cut-off (Au g/t)	Classification	Oxidation	Tonnes (kt)	Grade (Au g/t)	Metal (kOzs)	Classification	Oxidation	Tonnes (kt)	Grade (Au g/t)	Metal (kOzs)
0.75		Oxide	2,100	1.78	120		Oxide	390	1.25	10
0.75	Indicated	Sulphide	1,530	1.72	85	Inferred	Sulphide	7,300	1.35	320
0.75	_	Total	3,630	1.76	205		Total	7,690	1.34	330

 Table 17.6
 Selinsing Classified Mineral Resource, as at August 2006

# 18 Other relevant data and information

Snowden is not aware of any other relevant data and information made available by Moncoa since the 2005 Technical Report.

## 19 Interpretation, conclusions and recommendations

The Selinsing Project is at an advanced stage of exploration and has been subject to core and RC drilling programs and surface sampling programs carried out under the supervision of Moncoa geological staff. The author is satisfied that the drill sample database and geological interpretations are sufficient to enable the estimation of Mineral Resources. Accepted estimation methods have been used to generate a 3D block model of gold values.

The estimates have been classified with respect to CIM Guidelines and the resources are Indicated and Inferred status, according to the geological confidence and sample spacings that currently define the deposit.

Should Moncoa elect to do so, the Selinsing Project Resource estimate can be used in a Scoping Study or Preliminary Feasibility study. Feasibility studies that require a component of Measured Resources will necessitate additional programs of infill drilling and/or closer spaced drilling in representative regions of the deposit.

Snowden believes that Moncoa should be able to increase the confidence and size of the Selinsing resource through additional drilling.

Moncoa has successfully completed the drill programme to validate the historic RC data and made the core and sample storage facility secure, recommendations from the referenced technical report. Moncoa has also secured the ownership of the MC1/124 lease

Moncoa has retained Snowden to complete optimisation and mine design studies of the reported resource estimate. Upon completion of the studies, which have commenced, Snowden will separately report reserves for the Selinsing Project.

The author offers the following recommendations:

- Moncoa should incorporate the recommendations made here and previously into its ongoing QA/QC programs.
- Moncoa to continue with the C\$900,000 exploration drilling programme as detailed in the referenced technical report.
- Moncoa to implement a commercial database system for data storage as detailed in the referenced technical report.
- Moncoa should undertake a review of regional and near mine exploration targets as Snowden considers the area to be prospective for further discoveries. This programme has not been budgeted.

## 20 References

CIM, 2004. CIM Definition Standards on Mineral Resources and Mineral Reserves. Adopted by CIM Council November 14, 2004.

"Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report" prepared in accordance with NI 43-101 by Michael C. Andrew MAusIMM, BSc. of Snowden Mining Industry Consultants Pty Ltd

## 21 Certificate of Author

Michael C Andrew, B Sc. 87 Colin St West Perth 6000 WA, Australia Tel: +61 8 94816690 Fax: +61 8 93222576 Email: mandrew@snowdengroup.com

I, Michael C Andrew, B.Sc., am a Professional Geoscientist employed as a Principal Consultant –Resource Evaluation by Snowden Mining Industry Consultants, 87 Colin Street, West Perth WA Australia.

I graduated with a Bachelor of Science degree in Geology from Australian National University, Canberra ACT, Australia. I completed a Postgraduate Certificate in Geostatistics from Edith Cowan University in 2005. I am a member of the AusIMM. I have worked as a geologist for a total of 22 years since graduating with my bachelor's degree.

I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements of a "qualified person" for the purposes of NI 43-101.

I am responsible for the preparation of the technical report entitled "Addendum to the Technical Report entitled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report". I have visited the site between the 4th and 7th of April 2006 and between the 13<sup>th</sup> and 16<sup>th</sup> June 2006.

I have had prior involvement with the property, having prepared the referenced technical report.

I am not aware of any material fact or material change with respect to the subject matter of this technical report that is not reflected in the report, the omission to disclose which makes this report misleading.

I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.

I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in accordance with that instrument and form.

Dated at Perth, WA, this 21st day of September, 2006.

Michael Condrew

Michael C Andrew, B.Sc

## 22 Consent of Qualified Person

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TO: The securities regulatory authorities of each of the provinces and territories of Canada

I, Michael C Andrew, B Sc., do hereby consent to the filing of the report titled "Addendum to the Technical Report entitled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report", prepared for Moncoa Corporation. and dated September, 2006.

Dated at Perth, WA, this 21st day of September, 2006.

Michael Condrew

Michael C Andrew, BSc

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# Final

Moncoa Corporation: Addendum to the Technical Report titled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report with Reserve update Project No. **5174** 

> Selinsing Reserve Estimate January 2007

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This report has been prepared by Snowden Mining Industry Consultants ('Snowden') on behalf of Moncoa Corporation.

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Issued by: **Perth** Office Doc Ref: 070119\_Final\_5174\_Moncoa\_Reserve\_Update\_Selinsing\_R.doc

Print Date: 19 January 2007

Number of copies Snowden: 2 Moncoa Corporation: 2

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- A Metallurgical Design Mill gold recovery and treatment costs
- B Metallurgical Design Heap leach gold recovery and treatment costs
- C Snowden Memorandum Selinsing open pit design parameters

## 1 Summary

Moncoa Corporation (Moncoa) engaged Snowden Mining Industry Consultants (Snowden) to prepare a reserve estimate for the Selinsing Gold Project, Pahang State, Malaysia. The project is at an advanced stage of exploration and is not yet considered a development or production property. Reserves reporting was undertaken in accordance with CIM Mineral Resource and Mineral Reserve definitions that are referred to in National Instrument (NI) 43-101, Standards of Disclosure for Mineral Projects. This Technical Report has been prepared in accordance with the requirements of Form 43-101 F1.

Moncoa's request to undertake the reserves estimate follows the reporting of a resource estimate by Snowden in September 2006, contained in the report entitled "Addendum to the technical report entitled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report" and prepared in accordance with NI 43-101 by Michael C. Andrew MAusIMM, BSc of Snowden Mining Industry Consultants Pty Ltd. This Technical Report may be viewed on the SEDAR website at www.sedar.com.

The area surrounding Selinsing has a rich endowment of gold mineralisation with two nearby mines, Raub and Penjom, both having production and resources of over one million ounces, indicating the regional potential of the Raub Bentong Suture. Mining at Selinsing commenced prior to 1888 and has operated intermittently through to 1996. Underground and open cut mining, together with tailings treatment, has produced approximately 85,000 ounces of gold during this period. Current tailings treatment using heap leach extraction has produced over 1,000 ounces per annum since 2003.

The Resource Estimate has been updated using a lower cut-off of 0.59 g/t. Thiscut off has been selected by Snowden based on process cost and testwork data supplied by Moncoa. A Mineral Resource classification scheme consistent with CIM guidelines (CIM 2004) was applied. The estimates are categorised as Indicated and Inferred Mineral Resources and reported in Table 1.2.

At a block cut-off grade of 0.59 g/t Au the currently defined Selinsing Indicated Mineral Resource is 4.82 million tonnes grading 1.49 g/t Au for a total of 231,000 ounces of Au. At the same Au block cut-off grade, the currently defined Inferred Mineral Resource is 10.32 million tonnes grading 1.17 g/t Au for a total of 388,000 ounces of Au.

A Mineral Reserve classification scheme consistent with CIM guidelines (CIM 2004) was applied. The Selinsing Mineral Reserves are categorised as Probable Mineral Reserves and reported in Table 1.1 above a grade cut-off of 0.59 that is appropriate for a potentially bulk mineable deposit and the processing methods to be used by Moncoa.

Table 1.1 Selinsing Probable Mineral Reserves

CIM classification	Tonnes (millions)	Grade (g/t Au)
Proved	Nil	-
Probable	3.0	1.74

Snowden considers that this resource estimate is appropriate for use in a Scoping Study or a Pre Feasibility Study.

Cut-off (Au g/t)	Classification	Oxidation	Tonnes (kt)	Grade (Au g/t)	Metal (kOzs)	Classification	Oxidation	Tonnes (kt)	Grade (Au g/t)	Metal (kOzs)
0.59	Indicated	Oxide	2,749	1.52	134	Inferred	Oxide	596	1.04	20
0.59	Indicated	Sulphide	2,071	1.45	96	Inferred	Sulphide	9,719	1.18	368
0.59	Indicated	Total	4,820	1.49	230	Inferred	Total	10,315	1.17	388

Table 1.2 Selinsing Classified Mineral Resource as at December 2006

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## 2 Introduction and terms of reference

Snowden Mining Industry Consultants (Snowden) was engaged by Moncoa Corporation (Moncoa) to calculate a reserve estimate at the Selinsing project located within Pahang State of Malaysia. Reserve estimation work utilised accepted best practice and reporting was carried out in accordance with Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Mineral Resource and Mineral Reserve definitions that are appended to Canadian National Instrument (NI) 43-101 (Standards of Disclosure for Mineral Projects). This Technical Report has been prepared in accordance with the requirements of Form 43-101F1.

This report documents the Selinsing reserve estimate as per recommendations made in the September 2006 independent Technical Report entitled "Addendum to the technical report entitled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report" prepared in accordance with NI 43-101 by Michael C. Andrew MAusIMM, BSc of Snowden Mining Industry Consultants Pty Ltd. The September 2006 Technical Report is available on the SEDAR website at <u>www.sedar.com</u>. Mr. Frank Blanchfield, BE(Mining), an employee of Snowden, served as the independent Qualified Person responsible for preparing this Technical Report and undertaking the reserve estimation work.

The author visited the Selinsing site between the 28<sup>th</sup> and 31<sup>st</sup> August 2006. Current mining in the form of rehandling of tails and old mine workings were observed. A technical review of all site data was undertaken for the purposes of gaining an understanding previous mining, proposed mining method and operating costs for mining and processing, as well as a review of other data needed for the pit optimisation. Available information on geotechnical and mine design parameters were reviewed and discussed. Evidence of previous mining that occurred prior to 1999 was observed as well as the condition of pit walls. Photographs of the topography in the vicinity of the proposed pit and existing pit wall and are shown in Figure 2.1 and Figure 2.2.



#### Figure 2.1 Existing topography of the Selinsing pit



Figure 2.2 Current pit wall (west side)

Underground workings are present in the vicinity of the current pits and these are now flooded. Current surface and underground surveys were received by Snowden.

The reserve estimate was prepared based on the Snowden developed block model that was presented in the independent Technical Report entitled "Addendum to the technical report entitled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report"

Snowden gives permission to Moncoa to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party's sole risk.

Moncoa's Technical Reports and digital data files, provide the foundation for Section 17 (Mineral Resources and Mineral Reserve Estimates).

The author reviewed the land tenure situation in terms of operating licenses and has not independently verified the legal status or ownership of the properties or any agreements that pertain to the Selinsing Project. Land tenure aspects are described in previous Technical Reports submitted by Moncoa. The results and opinions expressed in this report are based on the author's field observations and assessment of the technical data supplied by Moncoa. Snowden has carefully reviewed all of the information provided by Moncoa, and believe it is reliable from the checks made.

The coordinate system used for the project grid is based upon the Universal Transverse Mercator (UTM) projection.

All measurement units used in the resource estimate are metric and the currency is expressed in American dollars unless stated otherwise.

## 3 Disclaimer

This report is intended to be used by Moncoa and is subject to the terms and conditions of its contract with Snowden. This report is intended to be read in conjunction with the technical report entitled "Addendum to the technical report entitled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report" prepared in accordance with NI 43-101 by Michael C. Andrew MAusIMM, BSc of Snowden Mining Industry Consultants Pty Ltd., and sections or parts of this report should therefore not be read or relied upon out of context.

Snowden has reviewed and analysed data provided by Moncoa and its consultants in addition to Snowden's own direct field examinations. While exercising all reasonable due diligence in checking and confirming the data, Snowden has relied largely upon the information supplied by Moncoa and its independent consultants in formulating its opinion in this technical report.

Snowden has not independently verified ownership or the current standing of Moncoa's tenements and the associated permits but has reviewed Moncoa's documents and reports regarding tenure. Snowden is not qualified to make legal representations in this regard and has relied upon information provided by Moncoa. However, Snowden has no reason to suspect that all of Moncoa's granted tenements and permits relating to the Selinsing project are not currently in good standing.

# 4 Property description and location

Material relevant to this section is contained in the following Technical Report:

"Addendum to the technical report entitled Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report" prepared in accordance with NI 43-101 by Michael C. Andrew MAusIMM, BSc of Snowden Mining Industry Consultants Pty Ltd. This Technical Report may be viewed on the SEDAR website at <u>www.sedar.com</u>.

5 Accessibility, climate, local resources, infrastructure and physiography

## 6 History

# 7 Geological setting

## 8 Deposit types

## 9 Mineralisation

# 10 Exploration

# 11 Drilling



## 12 Sampling method and approach

## 13 Sample preparation, analyses and security

## 14 Data verification

## 15 Adjacent properties

Material relevant to sections 15.2 and 15.3 is contained in the Technical Report referenced above.

## 15.1 Update of Advocet Mining PLC target leases

Moncoa has disclosed to Snowden information about leases to the north of MC 1/124, the current Selinsing Mining Certificate Lease, that are owned by Damar Consolidated Exploration Sdn Bhd (Damar). Snowden has been unable to verify this and other information viewed in the document labeled "Avocat Mining – Damar Prospects Malaysia, Information Memorandum, November 2006 – Avocat Mining PLC Corporate Finance Team, November 2006." In this sense the following information is not necessarily indicative of the mineralization described on the Damar leases.

The Damar leases are shown in Figure 15.1. They comprise of Mining Certificate Leases MC 1/107 and MC 1/111 (shown in red labels) and Prospecting Leases LC 4/93 and LC 6/95. LC 6/95 has been converted to a mining lease. Also the forestry lease known as MC 2/96 will be made a mining certificate lease soon.

Figure 15.1 Advocat target leases (Image by Damar)



Advocet Mining PLC (Advocat) owns 100% of Damar Consolidated Exploration Sdn Bhd (Damar). Advocat is open to the outright sale of Damar and considers that these are the most significant gold resources outside the Penjom gold mine and these leases hold the Buffalo Reef deposit. Snowden confirms on Moncoa's advice that there is no relationship between Damar and Moncoa.

The resource drill hole program and drill locations to date are shown in Figure 15.2. There has also been a geological interpretation done on the Buffalo reef.





Damar has reported, in their opinion, a JORC compliant mineral resource for Buffalo Reef, and this is shown in Table 15.1

JORC classification	Tonnes (millions)	Grade (g/t Au)	Attributable ounces
Indicated	1.9	2.49	155,000
Inferred	0.6	1.62	30,000
Total	2.5	2.29	185,000

 Table 15.1
 Buffalo Reef Mineral Resource (after Damar)

## 16 Mineral processing and metallurgical testing

Material relevant to sections 16.2 and 16.3 is contained in the Technical Report referenced above.

The following is extracted from the summary letter from Metallurgical Design, whom is nominated by Moncoa as an independent expert for mineral processing and metallurgical testwork.

## 16.1 Introduction

The purpose of the Metallurgical Design letter report is to provide supportive information regarding gold extraction rates from and milling operating costs for Selinsing ores as employed by Snowden in its preparation of its economic assessment of the Selinsing Deposit. The ores in question include ore from the main Selinsing Deposit that would contain sufficient grade to render treatment via conventional milling and cyanidation economic and lower grade material that would be amenable to lower cost heap leach processing.

The factors recommended and applied by Snowden were:

Mill Feed<br/>ROM<br/>>1g/tHeap Leach<br/>Low grade<br/>>0.59g/t<1g/t</th>Overall gold extraction, %8750Treatment cost, US\$/t13.047.09

Table 16.1Process parameters

Selinsing Mining Sdn. Bhd. (SMSB) has made a series of reports available to Metallurgical Design to assist in its assessment of the above factors. The following reports are of principal interest:

"Selinsing Gold Project, Information Memorandum"; Dover Consultants Pty Ltd, February 2000

"Gravity Separation/Cyanidation Leach Test work Conducted Upon Samples of Ore From The Selinsing Gold Deposit For Dover Consultants Pty Ltd", Report No. A5477; AMMTEC, *ca* May 1997.

## 16.2 Gold Extraction – Mill Feed Ore

The AMMTEC work clearly shows the Selinsing ore to respond well to the combination of gravity and cyanidation treatment processes. The following data extracted from the AMMTEC report were employed to arrive at the extraction figure for mill feed:

Table 16.2 Representitave recoveries

AMMTEC Test No.	Recovery to Gravity, %	Recovery to Cyanide, %	Total Recovery, %
HS2353	47.9	48.1	96.0
HS2354	35.6	46.6	82.2
HS2355	48.4	33.8	82.3
The simple average of these results provides the guideline 87% overall gold recovery figure.

Additional data contained in the AMMTEC report suggests that this result is slightly conservative. Tests on a combined composite of Selinsing ore involving enhanced aeration and oxygenation of the cyanide leach process post gravity processing resulted in higher recovery figures:

AMMTEC	Recovery to	Recovery to	Total Recovery, %	
Test No.	Gravity, %	Cyanide, %		
LB598/LB599	36.0	61.7	96.7	

These data suggest the use of an 87% overall recovery factor is reasonable, if not slightly conservative.

# 16.3 Gold Extraction – Heap Leach Ore

Further to Metallurgical Design letter of 13<sup>th</sup> November 2006 to Snowden "Re: Selinsing Project – Low Grade Heap Leach Potential" the potential for gold recovery from low grade ores remains at or near 50%.

# 17 Mineral Resource and Mineral Reserve Estimates

Material relevant to the resource estimate of this section (parts 1 to 15) is contained in the Technical Report referenced above.

# 17.1 Mineral Reserve Estimate

The Selinsing Mineral Reserve Estimate is based on a resource estimated by Snowden in the report entitled "Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report". At a cut-off grade of 0.59 g/t Au the currently defined Selinsing Indicated Mineral Resource is 4.82 million tonnes grading 1.49 Au for a total of 230,000 ounces of Au. At the same Au block cut-off grade, the currently defined Inferred Mineral Resource and as summarised in Table 1.2 is 10.3 million tonnes grading 1.17 g/t Au for a total of 388,000 ounces of Au.

### 17.1.1 Key Selinsing reserve assumptions

The key assumptions, parameters and methods used to create the ore reserve estimate are as follows:

- Indicated and Inferred Resources were modelled and estimated by Snowden in September 2006. Only Indicated Resources were used for the optimisation.
- Moncoa supplied geotechnical slope parameters were recommended by independent experts (Golders 1997) and these were reviewed and modified by Snowden.
- Reserves were estimated by Snowden using Whittle 4X pit optimisation and Datamine mining software for the detailed pit design.
- Reporting of gold as a valuable commodity with an overall recovery of 87.0% for fresh material and 50% for leach material and a value of US\$600 per Troy Ounce.
- A mining operating cost of US\$1.84 per dry metric tonne (dmt) for waste and US\$2.05 per dmt for ore.
- A base processing cost of US\$9.91 per dmt for ore.
- A discount rate of 10% was used in the optimisation.
- No capital costs were included in the optimisation, but were considered in the financial model.
- Internal dilution of the resource was not considered, as the estimation method and block size in the model was considered to account for dilution and mitigate ore loss.

Dilution is accounted for in the model by the estimation method. The estimation method used was Ordinary Krigging. For this method the grade is smoothed over the blocks being estimated and the grade does not drop off or rise sharply on hard boundaries. Also the block model has been uniformly conditioned. This has the effect of increasing the grade and decreasing the tonnes for ore within a block at a set cut-off. Ore loss has therefore been considered, as uniform conditioning effectively models ore recovered at the selective mining unit (SMU) size.

# 17.2 Geotechnical considerations

A preliminary geotechnical assessment was undertaken by Golders in 1997 for Target Resources Australia NL (TRA), former owners of the Selinsing deposit. The

review was undertaken to provide pit design parameters to be used in further mine engineering studies.

A summary of the memorandum concludes the following:

- Golders overall wall angles may be aggressive in the weaker zones associated with weathering at ground surface and the limestone sediment contact.
- Pit wall intersections within weak zones should be identified and work performed to reassess appropriate wall angles in these areas.
- There is little available data to determine the position and thickness of the in situ material types, including the weak material.

It is therefore not possible to reassess the pit wall angles with any level of confidence.

Snowden has reviewed the Golders overall wall angle and has noted that this is calculated based on batter height, angle and berm width. Snowden has performed this calculation and reports a discrepancy to the Golders reported overall wall angle. Snowden has used the recalculated overall wall angles and also made provision for a ramp in this calculation. A comparison of the Golders reported wall angles and the Snowden reported angles appears in Table 17.1.

Wall	No. Batters	Batter Angle	Berm Width m	Batter Height	No. Ramps	Ramp Width m	Snowden Overall Slope	Golder Overall Slope
N - 000	10	60	5	20	1	12	49.2	55
E - 090	10	60	5	20	1	12	49.2	55
S - 180	10	60	5	20	1	12	49.2	55
W – 270 variable:								
Above 530 mRL	5	40	5	10	0	12	32.1	37
530 mRL - 490 mRL	5	40	5	20	0	12	35.7	N/A
Below 490 mRL	10	55	5	20	1	12	45.4	45

Table 17.1Selinsing overall pit wall angles

The Snowden overall slopes as reported above have been used in the optimisation.

# 17.3 Review of mining and processing operating costs

Whilst on site at Selinsing, Snowden met with representatives of Moncoa management and mine technical staff to develop operating costs suitable for use in Whittle 4X optimisations. Unit costs were developed using the following data:

- historical data from mining production cost accruals
- historical data using machine and production performance
- historical data for labour
- recently supplied quotes for proposed mining and processing activities
- process operating costs as developed by Metallurgical Design whom are Moncoa's independent experts for mineral processing
- government rates for electricity, diesel and royalty costs

All costs were developed in the currency of Malaysian Ringgits and converted to US dollars and Australian dollars using appropriate exchange rates.

For mining, both load and haul operations and drill and blast activities were considered to be performed by an external mining contractor. Mining operating costs were considered to be appropriate considering that in Malaysia, reduced diesel price, lower labour costs and use of small machinery readily available from previous logging operations in the forestry industry, are all cost benefits when compared to the Australian operating costs and requirements. Mining costs are summarised in Table 17.2.

Unit mining cost by cost centre	RM	\$US	\$AUD
Exchange rate	1.00	3.71	2.82
	RM/t	\$US/t	\$AUD/t
Drill & blast waste	1.65	0.44	0.59
Load & haul	1.70	0.46	0.60
Mine supervision	1.16	0.31	0.41
Mine service	1.32	0.36	0.47
Equipment maintenance	0.00	0.00	0.00
Progressive rehabilitation of dump	1.00	0.27	0.35
Total	6.84	1.84	2.42

### Table 17.2 Selinsing mine operating unit costs

### 17.3.1 Treatment Costs – Mill Feed Ore

The cost of treating 400,000 tpa of Selinsing ore in a conventional milling / gravity / cyanidation circuit was estimated by SMSB and Metallurgical Design to be US\$13.04/t. This figure has been based on the following:

- Current costs for power, fuel, consumables and labour as experienced by SMSB operations
- Current earthmoving rates in Malaysia.

### 17.3.2 Treatment Costs – Heap Leach Ore

The cost of heap leaching up to 100,000 tonnes per quarter of Selinsing low grade ore has been estimated to be US\$7.09/t. This figure comprises an initial estimate of US\$4.06/t made by Moncoa and Metallurgical Design. Metallurgical Design subsequently increased this to US\$5.39/t to account for increasing pump power requirements as the heap leach operation expands.

A further US\$1.70 has been allowed for ex-mine costs.

For process operating costs, mill personnel would be employed and numbers of employees and pay rates were provided by Moncoa. All consumables, management and administration were considered. Cyanide destruction was also considered in the event of flooding. Processing costs are summarised in Table 17.3.

Processing cost by tonnage trea	ited			
Exchange rate		1.00	3.71	2.82
		RM/t	\$US/t	\$AUD/t
General manager		1.94	0.52	0.69
Operator and maintenance labour		3.40	0.92	1.21
Power		4.56	1.23	1.62
Cyanide		8.26	2.23	2.93
Grinding balls		3.20	0.86	1.13
Lime		0.30	0.08	0.11
Acid		0.05	0.01	0.02
Caustic		0.01	0.00	0.00
Carbon		0.11	0.03	0.04
Maintenance materials		3.80	1.02	1.35
Drill & blast ore (differential cost)		2.50	0.67	0.89
Safety and other		1.00	0.27	0.35
Administration		4.69	1.26	1.66
Grade control		1.16	0.31	0.41
Drill & blast ore (differential cost)		1.00	0.27	0.36
Load & haul ore(differential cost)		0.10	0.03	0.04
Rom pad and ore stockpile reclaim		0.68	0.18	0.24
	Total	36.77	9.91	13.04

T.I.I. 47.0	C . I'	
	Sellinsing process	operating unit costs

Also, a royalty was considered for the optimisation at a rate of 5% of revenue from recovered ounces.

# 17.4 Metallurgical considerations

Metallurgical recovery factors were provided by Metallurgical Design whom were nominated by Moncoa as independent experts. Two process streams are anticipated for Selinsing, namely a CIL mill process and a heap leach process. The process recovery factors are summarised as:

- for mill grade material at a 1.0 g/t cut-off, the recovery is 87%
- for leach grade material at a 0.59 g/t cut-off and less than 1.0 g/t, the recovery is 50%

Snowden considers that the mill recovery is appropriate as this has previously been reported between 90% and 95%. The leach recovery is considered realistic based on recoveries currently being achieved by the reprocessing of Selinsing tails that have been heap leached and reported by Metallurgical Design.

Process throughput for the CIL plant has been nominated by Moncoa at 400,000 tpa. Leach material accumulation is considerably less and according to the Snowden schedule, the leach stockpile reaches a maximum of 113 kt in any one quarter.

Also reasonable capital costs of \$US 120,000 have been considered for setup of the leach pad and \$US 8.1 M has been considered for the construction of a process plant

# 17.5 Other modifying factors

Snowden is not aware of any marketing, political or other issues that may materially affect the Ore Reserve estimate in an adverse way. Snowden is reliant on disclosures made by Moncoa for assessment of environmental, permitting, legal, land title, taxation and socio-economic issues that may affect the Ore Reserve estimate in an adverse way.

An inspection of the underground workings have been made against the ultimate design. Snowden observed that the end of two underground drives penetrated the pit design. These penetrated the ore body by 25m and 7m and our in currently modelled leach grade and low grade material, both drives are close to the currently modelled ore contact. They do not significantly change the ore reserve estimate.

Copies of current mining certificate leases have been viewed by Snowden and Snowden understands from Moncoa that these are in good standing. Lease MC 1/124 sustains a small heap leach operation. There is no mining activity on 1/113.

Moncoa is currently acquiring an 51% interest in Selinsing Mining Sdn Bhd leases with an option within one year of acquiring the remaining 49%.

# 17.6 Ore reserve statement

The Selinsing ore reserve has been evaluated and validated by Snowden. The Mineral Resource estimate is wholly inclusive of the Ore Reserves. No Inferred Mineral Resources have been considered for the Ore Reserves.

Snowden confirms that the Ore Reserves estimated for the Selinsing gold deposit is as listed in Table 17.4.

CIM classification	Tonnes (millions)	Grade (g/t Au)	
Proved	Nil	-	
Probable	3.0	1.74	

 Table 17.4
 2006 Selinsing Ore Reserves Estimate

The marginal cut-off is 0.59 g/t. The estimates were derived from the March 2006 resource developed by Snowden. This model was then optimised by Snowden using a Lerchs-Grossman algorithm to develop a surface or shell whereby material inside this shell was considered to be economic, based on Moncoa supplied operational data, operating costs and gold price. These are discussed further in Section 25. Snowden has audited this data, costs and prices and considers them to be reasonable compared to operations mining a similar commodity.

The Snowden optimised shell surfaces were then used to design a mine. Production stages were recommended to Moncoa from two nested shells. The two nested shells were used to develop staged designs for the pits. Snowden inspected these stage and ultimate designs and consider them appropriate for scheduling based on optimising production, observing geotechnical batter and berm constraints and providing safe working designs. Snowden then scheduled the material contained in the staged pit designs. A summary of the inventory for the staged designs appears in Table 22.2

### Table 17.5 Selinsing staged design inventory

The ore and waste schedule was then input into the Moncoa financial model and the financial position of the Selinsing Project was evaluated. Snowden has undertaken a detailed audit of the Moncoa financial model with the following considerations assessed:

- taxes, royalties and permitting costs
- appropriate costs for fuel and labour
- appropriate prices for metal and electricity
- appropriate discounting and depreciation
- capital costs aligned with industry costs
- operating costs aligned with industry costs
- debt repayment schedules
- environmental costs.

The reserve estimates are stated following Snowden's acceptance that the financial results produced by Moncoa are reasonable based on audits of data performed by Snowden. Cash flow sensitivity analyses have also been performed in Section 25.

# 18 Other relevant data and information

Other data relevant to the Selinsing project include the following:

- Mining unit costs were based on newly supplied contractor costs or historical data. A diesel price that attracts a government rebate is included in these unit cost quotes.
- Salaries are considered to be similar to Australian salaries for professional, technical and administrative roles and labour costs considerably less than Australian labour costs at around US\$ 4,000 to 6,000 per annum.

# 19 Interpretation and conclusions

Moncoa has provided data and Snowden has interpreted some of this data to a Pre-Feasibility Study level for the exploitation of the Selinsing gold mine. Using good quality data collected by Moncoa personnel, Snowden has estimated and classified the Mineral Resources of the deposit and has carried out pit optimisation studies on the estimates, using inputs from both Snowden and Moncoa to estimate the Ore Reserves available for mine planning. Snowden has designed an open pit mine to access the resources using inputs from Snowden and other external experts and generated a mine schedule for exploitation of the resource over a period of 4.5 years. Snowden has independently reviewed the key inputs to the Mineral Resource and Ore Reserve estimates and considers the project economics to be robust under the assumptions used to generate the cash flow model.

Moncoa has demonstrated through metallurgical testing, which demonstrated a relatively simple processing route for extraction of a gold product from heap leach liquor and a through process plant of CIL with a gravity circuit. Moncoa has also demonstrated the project output is saleable for off-take of 100% of the output from Selinsing.

# 20 Recommendations

# 20.1 Future resource development

Snowden recommends to further resource category upgrade and increase the size of the resource tonnes and grade within the current resource block model boundaries by more resource development drilling. The resource is considered open at depth. The objective of such resource development drilling is a conversion of resource category Inferred material to Indicated material and the potential for this is given in section 21.10. Snowden recommends appropriate work be carried out to strategically position exploration holes for the optimisation of resource category conversion.

Moncoa has indicated interest in leases one kilometre to the north of Selinsing. Snowden recommends the auditing of these described reserves on Avocat's Buffalo Reef to validate that they are accurately reported. These apparent resources are claimed to be reported to a JORC standard. The size of this resource is shown in section 15 of this report.

# 21 References

CIM, 2004. CIM Definition Standards on Mineral Resources and Mineral Reserves. Adopted by CIM Council November 14, 2004.

"Selinsing Gold Mining Project, Malaysia NI43-101 Technical Report" prepared in accordance with NI 43-101 by Michael C. Andrew MAusIMM, BSc. of Snowden Mining Industry Consultants Pty Ltd.

"Draft report on open pit geotechnical assessment Selinsing Gold Project Malaysia" Golder Mining associates, report May 1997.

"Selinsing Gold Project, Information Memorandum"; Dover Consultants Pty Ltd, February 2000.

"Gravity Separation/Cyanidation Leach Test work Conducted Upon Samples of Ore From The Selinsing Gold Deposit For Dover Consultants Pty Ltd", Report No. A5477; AMMTEC, *ca* May 1997.

"Selinsing Gold Project Preliminary Feasibility Study" TRA Mining Malaysia Sdn Bhd, January 1998.

"Avocat Mining – Damar Prospects Malaysia, Information Memorandum, November 2006 – Avocat Mining PLC Corporate Finance Team, November 2006."

# 22 Additional requirements for technical reports on development properties and production properties

# 22.1 Selinsing mining operations

Mining operations are envisaged based on the schedule that has been developed by Snowden in January 2007. Snowden produced an optimal shell following pit optimisation of the Selinsing resource using Whittle software. This shell was used to plan a mine design and the Ore Reserve was calculated inside this design and scheduled to Moncoa operating constraints. The shell was inspected to ensure the previous underground workings did not penetrate the current workings and this was eliminated as a modifying factor the potential reserve. The shell and mine design are shown in Figure 22.1. A summary of the shell and design statistics are presented in Table 22.1. The mining operations will be carried out under contract using locally established and available mining contractors.



Figure 22.1 Pit and Shell comparison

	5	•		
	ore	grade	waste	Total rock
	kt	g/t Au	kt	kt
Optimised shell 62	3,136	1.74	4,713	7,848
Ultimate Design	2,996	1.74	4,926	7,923
% design vs optimised shell	95.6%	99.8%	104.5%	100.9%

Table 22.1 Summary of shell and ultimate design statistics

The design was split into two stages so that higher grade material could be mined earlier in the mine life. The red coloured pit in Figure 22.2 shows the starter pit design that is mined ahead of the ultimate pit design that are coloured blue and purple.





Table 22.2   Selensing reserves split by stage								
	Mill ROM ore	grade g/t	Leach Iow grade ore kt	grade g/t	waste kt	Total rock kt		
Stage 1 increment	795	2.59	420	0.78	1,241	2,456		
Ultimate Design increment	1,011	2.21	771	0.77	3,686	5,467		
Total	1,806	2.38	1,190	0.77	4,926	7,923		

Ore and waste for the staged inventories are shown in Table 22.2.

The topography in the vicinity of the proposed pit at Selinsing consists of a ridge to the east that will be mined, but in the west, mining will occur on the flood plain in which a void has been created from previous mining. A flood bund wall has been erected and will need to be maintained throughout the mine life.



Figure 22.3 Selinsing topography with ultimate pit outline

The top of the ridge is at 575 mRL and the bottom of the ultimate design is at 400 mRL.



Figure 22.4 Topography and ultimate design cross-section (1950 N)

It is envisaged that mining will be undertaken by a contractor. Currently a contractor is engaged to load and haul tailings for reprocessing from existing tails areas adjacent to the previously worked pit. Snowden has sighted quotations for an extension for this mining contract to accommodate new mining and other quotations from other mining vendors. Also a quotation from a drill and blast vendor has been tendered. It is believed that most of the material will require blasting and appropriate costs have been considered for drill and blast activities. Snowden estimates that a small excavator, equipped with approximately a four cubic metre bucket and up to ten small trucks would be appropriate for the mining requirement on a double shift basis moving material as indicated in the production schedule. For a single shift two such excavators would be required.

For pit design purposes a twelve metre wide ramp of 10 % gradient is used. For the final 25 metre depth of mining of the staged and ultimate pit, the ramp is reduced to six metres. Berms 5m wide are placed 20 metres apart and the batter angles are variable and have been discussed in Section 17, Table 17.1. Snowden considers that these design parameters are appropriate for the rock mass and type of equipment to be used at Selinsing. The average distance from the top of the pit ramp to the waste dump is approximately 400 metres.

At Selinsing, Moncoa have considered two process streams to recover gold from the run of mine material. A CIL mill will be used to process gold grades greater than or equal to 1.00 g/t and a heap leach will be used to recover gold grades greater than 0.59 g/t and less than 1.00 g/t. The mill rate of 400,000 tonnes per annum is considered appropriate for this size of deposit. A gold ingot is produced at the backend of the process. The approximate distance from the pit crest to the process facility will be one kilometre.

The Selinsing production schedule is shown in Table 22.3.

A proposed site map for the Selinsing operations is given .This shows proposed tails dam locations, waste dumping areas, proposed CIL plant, stockpiling areas and the mine.

### Qtr 2 Qtr 2 Qtr 3 Qtr 4 Qtr 1 Qtr 3 Qtr 4 Otr 1 Period 2007 2007 2007 2007 2008 2008 2008 2008 Mill Ton 93.191 99,658 100.753 103.789 121,034 99.661 100,854 105,253 Mill Grade (g/t) 1.71 1.69 1.64 2.25 2.68 3.34 3.70 3.28 Leach Tons 82,559 74,053 100,274 65,143 55,415 23,951 15,457 60,957 Leach Grade (g/t) 0.77 0.79 0.78 0.78 0.80 0.79 0.78 0.75 Waste Tons 396,272 128,994 210.519 245,435 208.728 106,344 63.690 421.141 Total Tons 572,022 302,705 411,545 414,367 385,177 229,956 180,001 587,351 5,133 High grade ounces 5,400 5,321 7,505 10,419 10,711 12,000 11,100 2.053 1,890 605 Low grade ounces 2,503 1,628 1,421 386 1,469 Qtr 1 Qtr 2 Qtr 4 Qtr 1 Qtr 2 Qtr 3 Qtr 4 Period Qtr 3 2009 2009 2009 2009 2010 2010 2010 2010 Mill Tons 100,753 98,562 99,657 100,753 100,752 98,562 99,658 100,753 Mill Grade (g/t) 1.39 1.67 2.07 2.17 2.01 2.39 2.62 2.58 Leach Tons 112,687 113,495 86,801 80,854 107,701 78,745 51,299 40,889 Leach Grade (g/t) 0.78 0.78 0.76 0.76 0.76 0.75 0.78 0.79 Waste Tons 309,544 332,021 536,306 569,358 728,341 403,315 148,246 72,614 Total Tons 520,793 545,173 723,860 750,964 934,603 581,717 300,297 214,255 7,673 8,497 8,343 High grade ounces 4,401 5,349 6,695 7,025 6,364 2,822 2,845 1,908 1,292 1,039 Low grade ounces 2,134 1,986 2,615 Qtr 1 Qtr 2 Period 2011 2011 Mill Tons 98,563 83,716 Mill Grade (g/t) 2.79 2.73 Leach Tons 28,948 11,167 0.81 Leach Grade (q/t) 0.79 Waste Tons 35,473 10,131 Total Ton 162,984 105,014 8,829 High grade ounces 7,336 Low grade ounces 732 292

### Table 22.3Selinsing production schedule

**SNºWDEN** 



Figure 22.5Proposed Selinsing site map (Image by Moncoa)

# 22.2 Process recoverability

Moncoa has indicated that a mill will be constructed utilising a gravity recovery circuit and a simple cyanidation treatment process. Section 18 shows the test work results and lists documents that this treatment process method is based on. Metallurgical Design have confirmed that the expected recovery for this process will be 87% and that the mill process will be appropriate for a throughput of 400 kt per annum and a head grade averaging 2.38 g/t.

Approximately 40 % of the material is a low grade product that will be leached. Metallurgical design have also considered available test work for the leach material and details of this test work can be found in appendix A. Metallurgical Design have confirmed that the expected recovery for this process will be 50% and that the leach process will be appropriate for a head grade averaging 0.77 g/t. Approximately 260 kt of leach material will be stacked per annum to the north west of the main pit.

# 22.3 Gold Markets

Moncoa has indicated that gold from Selinsing has for a number of years been marketed through the AGR Refinery located in Perth. The arrangement is approved by the Customs Department of Malaysia. An audit trail for the Malaysian Central Bank (Bank Negra) to track the export of Selinsing gold as well as when revenue from sale comes back into Malaysia. It is expected by Moncoa that this arrangement will continue.

The gold will be poured as dore on site and shipped as about 85% gold content as indicated by site performance. The gold will then travel from the mine site to KL International Airport and by there by air to AGR Perth. AGR refine the gold and sell it on instructions at market and the shipper is paid in US dollars out of New York USA through to Maybank (Malaysia's National Bank) in KL, where it is converted to RM.

# 22.4 Contracts

### 22.4.1 Mining activities

It is understood that the mining activities of load and haul and drill and blast will be delivered by contract. The load and haul contract is well established for the treatment of tails and it is understood an extension to this contract will prevail.

### 22.4.2 Gold transport and sale

The gold will be poured as dore on site and shipped as about 85% gold content as indicated by site performance. The gold will then travel from the mine site to KL International Airport and by there by air to AGR Perth. AGR refine the gold and sell it on instructions at market and the shipper is paid in US dollars out of New York USA through to Maybank (Malaysia's National Bank) in KL, where it is converted to RM.

# 22.5 Environmental considerations

The regulatory instrument for mining in Malaysia is the Mining Enactment. There is no Environmental assessment required for the Selinsing operation because of its size.

# 22.6 Taxes, royalties and levies

No Malaysian company tax is payable by Moncoa as the company is a non-resident company. A government royalty of 5% of gross operating revenue is payable to the Malaysian Government. Also finance royalty of 12% may be payable to the project finance lender, assuming final arrangements are agreed in those terms.

# 22.7 Capital and operating cost estimates

### 22.7.1 Operating costs

Detailed operating costs for the Selinsing project have been developed by Moncoa and checked by Snowden compared similar mining operations. These costs have

been included in the Moncoa financial model and Snowden has verified that they are correct. A summary of the operating costs appear in Table 22.4.

OPERATING COST	2007 US\$ M	2008 US\$ M	2009 US\$ M	2010 US\$ M	2011 US\$ M	2012 US\$ M	Total Project US\$ M
Mining ore & waste	-	3.1	2.5	4.6	3.7	0.5	14.3
IND ROM treatment Mill	-	3.8	4.1	3.9	3.9	1.8	17.5
IND heap leach treatment	0.5	1.6	2.1	1.1	1.0	-	6.3
TOTAL	0.5	8.5	8.7	9.5	8.5	2.2	38.0

### Table 22.4 Selinsing project operating cost summary

### 22.7.2 Capital costs

Detailed capital costs have been considered for the Selinsing project have been considered by Moncoa prior to the start of 2008 and are listed in Table 22.5. A summary of capital expenditure appears in Table 22.6.

CAPITAL ITEM	US\$ M
Final Feasibility extra cost allowance	0.32
Engineering	0.21
Mill & equipment	1.58
Dismantle, trans., construct & com. plant	0.63
Tankage, concrete and assoc.	0.55
Explosives Magazine	0.04
Mine pumping equipment.	0.32
New processing & replacement equipt.	0.39
Site construction & earthworks	1.18
Vehicles	0.32
Communications - phone upgrade	0.04
Computers and software	0.08
Power - Hydro supply upgrade	0.79
Road and site access upgrade	0.09
Tailings Dam	0.53
Waste Dump	0.08
Pit pre-strip, site & mine development	0.79
Working capital during construction	0.64
Subtotal	8.57
Contingency	0.64
TOTAL	9.21

 Table 22.5
 Selinsing project capital cost detail

# **SNºWDEN**

	l able 22.6	Selinsing p	roject capital c	cost summary			
Capital Cost	2007	2008	2009	2010	2011	2012	Total Project
 Total (US\$ M)	7.9	1.3					9.2

### 22.8 **Economic Analysis**

Snowden has conducted a brief economic analysis on the Moncoa financial model.

The grade directly drives the gold price so a sensitivity has been performed on gold price, operating costs and capital costs where the sensitivity range is 20%. The summary of the sensitivity analysis is shown Table 22.7.

		-						
	Cashflow							
Economic Parameter	NPV	2007	2008	2009	2010	2011	2012	
		US\$ M						
Operating cost -20%	21.1	0.7	3.4	15.6	13.7	24.2	31.0	
Operating cost +20%	9.1	0.5	-0.2	8.2	2.1	8.5	14.0	
Capital cost -20%	17.1	2.2	3.5	13.9	10.0	18.6	24.8	
Capital cost +20%	13.2	-1.0	-0.3	9.9	5.8	14.2	20.3	
Grade -20%	4.1	0.6	-0.9	5.2	-2.0	2.5	6.6	
Grade+20%	26.1	0.6	4.1	18.6	17.8	30.2	38.5	
Base case	15.1	0.6	1.6	11.9	7.9	16.3	22.5	

### Selinsing economic sensitivity Table 22.7

The cashflow data in Table 22.7 is presented in graphical format in Figure 22.6.

# **SNºWDEN**



Figure 22.6 Selinsing cashflow sensitivity graph

The out put from the Selinsing financial model is given in Table 22.8.

<b>SNºWDEN</b>
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Selinsing Financial Model (in US\$ M)		2007	2008	2009	2010	2011	2012	Total Project
Revenue (Ind ore only)	IND ROM mill #1 ore	0.0	12.2	23.1	12.3	16.1	8.4	72.1
	INF heap leach ore pad	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	IND heap leach ore pad	0.0	2.4	1.2	2.9	2.1	0.3	8.9
Total Gold Sales		0.0	14.6	24.3	15.2	18.2	8.7	81.0
	Interest earned	0.0	0.0	0.3	0.3	0.5	0.4	1.6
Total Revenue		0.0	14.6	24.5	15.5	18.7	9.2	82.5
Operating Costs	Mining ore & waste	0.0	3.1	2.5	4.6	3.7	0.5	14.3
	IND ROM treatment Mill	0.0	3.8	4.1	3.9	3.9	1.8	17.5
	INF heap leach treatment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	IND heap leach treatment	0.5	1.6	2.1	1.1	1.0	0.0	6.3
Plant-construction	Plant, pit and site dev.	7.9	1.3	0.0	0.0	0.0	0.0	9.2
Other outgoings	Tenement costs	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Administration Overhead	0.3	0.6	0.6	0.6	0.6	0.3	2.9
	Government Royalty	0.0	0.7	1.2	0.8	0.9	0.4	4.1
	Finance Royalty	0.0	1.8	2.9	0.4	0.0	0.0	5.0
	Management fee	0.0	0.1	0.1	0.1	0.1	0.0	0.3
	Loan repayment	0.0	0.5	0.5	8.2	0.0	0.0	9.2
	Loan Interest	0.4	0.2	0.2	0.0	0.0	0.0	0.9
	General contingency	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total outgoings & capital		9.1	13.7	14.2	19.5	10.2	3.0	69.8
Increase in cash from operations		-9.1	1.0	10.3	-4.0	8.4	6.2	12.8
Opening cash		9.7	0.6	1.6	11.9	7.9	16.3	9.7
Closing Cash		0.6	1.6	11.9	7.9	16.3	22.5	22.5
Y0 Initial investment		Y1 cash	Y2 cash	Y3 cash	Y4 cash	Y5 cash	Y6 cash	
		0.6	1.0	10.3	-4.0	8.4	6.2	

Table 22.8 Selinsing Financial model

# 22.9 Payback

The Moncoa operation will need to be funded by a project loan secured over the project asset and finance is sourced late in 2006 early 2007. The US\$ 9.7 M loan is paid back by the first quarter of 2010, or approximately 2.5 years, according to the Moncoa financial model payback schedule. This includes interest payments of US\$ 1.3 M.

The Internal rate of return is 23%.

# 22.10 Mine Life

The current mine life at the nominated mill production rate of 0.4 million tones per annum is 4.5 years.

Snowden has investigated the potential for exploration to further extend this mine life. A Whittle optimisation has been carried out on the Selinsing resource with the Inferred material included. The purpose of this optimisation is to see the potential for further resource drilling so that Inferred ore material may be upgraded. The results of the optimisation is shown graphically Figure 22.7. The block model is shown with two pit shells. Material above the 0.59 g/t cut-off is coloured blue for Indicated material and red for Inferred material. The ultimate pit based on Indicated material only is coloured grey and the Inferred pit based on Indicated and Inferred material is coloured tan.





All optimisation parameters used in the Indicated only optimisation were used in the Inferred optimisation except that the wall angles were slightly steepened. The details of this are as follows:

- For domain 1 the overall wall angle changed from 43.5 degrees to 45 degrees
- For domain 3 the overall wall angle changed from 46 degrees to 49 degrees.

Snowden has reduced the wall angles slightly in the anticipation that wall angles will able to be optimised following new mining for the Selinsing deposit.

The reported ore tonnes, grade, waste material and contained ounces are reported in Table 22.9.

Snowden recommends that an exploration program targeting currently Inferred material at the base of the Selinsing ultimate design with the objective of upgrading material to Indicated resource classification be undertaken. This is based on a significant amount of Inferred material at the base of the pit.

### Table 22.9 Comparison of Selinsing ultimate pit with Inferred optimisation

	ore kt	grade g/t	waste kt	Total rock kt	Contained ounces Koz
Indicated and Inferred shell	5,432	1.73	19,042	24,475	302
Ultimate Design (Ind only)	2,996	1.74	4,926	7,923	167

# 23 Qualified Person sign-offs

### 23.1 Ore reserves sign-off excluding metallurgical parameters

Frank Blanchfield, B Eng (Mining) 87 Colin Street WEST PERTH WA 6000 Tel: +61 8 9213 9213 Fax: +61 8 9322 8691 Email: fblanchfield@snowdengroup.com

I, Frank Blanchfield, B.Sc., am a Professional Mining Engineer employed as a Senior Consultant by Snowden Mining Industry Consultants, 87 Colin Street, West Perth WA Australia.

I graduated with a Bachelor of Engineering degree in Mining Engineering from The University of New South Wales, Sydney, NSW Australia. I am a member of the AusIMM. I have worked as a mining engineer for a total of 17 years since graduating with my bachelor's degree.

I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements of a "qualified person" for the purposes of this NI 43-101 report.

I am responsible for the preparation of the technical report entitled "Addendum to the Technical Report entitled Selinsing Gold Mining Project , Malaysia NI43-101 Technical Report, with Reserves update". I have visited the site between the  $28^{th}$  and  $31^{st}$  August 2006.

I have had prior involvement with the property, having prepared the referenced technical report.

I am not aware of any material fact or material change with respect to the subject matter of this technical report that is not reflected in the report, the omission to disclose which makes this report misleading.

I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.

I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in accordance with that instrument and form.

Dated at Perth, WA, this 18th day of January, 2007.

he

Frank Blanchfield, B Eng (Mining). 18<sup>th</sup> January 2007

# 23.2 Gold recovery and treatment cost sign-off of the Selinsing deposit

The information in the report that relates to gold recovery and treatment cost aspects of Selinsing ore used for the Mineral Reserve estimate is based on information compiled by Michael John Kitney who is a member of the Australasian Institute of Mining & Metallurgy. Michael John Kitney is a full-time, self-employed professional within the minerals treatment sector and possesses sufficient relevant experience to assess the treatment response of the deposit under consideration and to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Michael John Kitney consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

Signed / Date:

michael f. taky

Michael Kitney MAusIMM, MSc

6th December, 2006

A Metallurgical Design – Mill gold recovery and treatment costs

### SELINSING MINING SDN BHD GOLD RECOVERY AND TREATMENT COST ASPECTS OF THE SELINSING DEPOSIT

### Introduction

The purpose of this letter report is to provide supportive information regarding gold extraction rates from and milling operating costs for Selinsing ores as employed by Snowden in its preparation of its economic assessment of the Selinsing Deposit. The ores in question include ore from the main Selinsing Deposit that would contain sufficient grade to render treatment via conventional milling and cyanidation economic and lower grade material that would be amenable to lower cost heap leach processing.

The factors applied by Snowden were:

Ore Type	Mill Feed	Heap Leach
Overall gold extraction, %	87	50
Treatment cost, US\$/t	13.04	7.09

Selinsing Mining Sdn. Bhd. (SMSB) has made a series of reports available to Metallurgical Design to assist in its assessment of the above factors. The following reports are of principal interest:

"Selinsing Gold Project, Information Memorandum"; Dover Consultants Pty Ltd, February 2000

"Gravity Separation/Cyanidation Leach Test work Conducted Upon Samples of Ore From The Selinsing Gold Deposit For Dover Consultants Pty Ltd", Report No. A5477; AMMTEC, *ca* May 1997.

### Gold Extraction – Mill Feed Ore

The AMMTEC work clearly shows the Selinsing ore to respond well to the combination of gravity and cyanidation treatment processes. The following data extracted from the AMMTEC report were employed to arrive at the extraction figure for mill feed:

ĺ		Recovery to	Recovery to	Total Recovery, %
	Test NO.	Gravity, %	Cyanide, %	
	HS2353	47.9	48.1	96.0
	HS2354	35.6	46.6	82.2
_	HS2355	48.4	33.8	82.3

The simple average of these results provides the guideline 87% overall gold recovery figure.

Additional data contained in the AMMTEC report suggests that this result is slightly conservative. Tests on a combined composite of Selinsing ore involving enhanced

aeration and oxygenation of the cyanide leach process post gravity processing resulted in higher recovery figures:

AMMTEC Test No.	Recovery to Gravity, %	Recovery to Cyanide, %	Total Recovery, %
LB598/LB599	36.0	61.7	96.7

These data suggest the use of an 87% overall recovery factor is reasonable, if not slightly conservative.

### Gold Extraction – Heap Leach Ore

Further to Metallurgical Design letter of 13<sup>th</sup> November 2006 to Snowden "Re: Selinsing Project – Low Grade Heap Leach Potential" the potential for gold recovery from low grade ores remains at or near 50%.

## Treatment Costs – Mill Feed Ore

The cost of treating 400,000 tpa of Selinsing ore in a conventional milling / gravity / cyanidation circuit was estimated by SMSB and Metallurgical Design to be US\$13.04/t. This figure has been based on the following:

- Current costs for power, fuel, consumables and labour as experienced by SMSB operations
- Current earthmoving rates in Malaysia.

# Treatment Costs - Heap Leach Ore

The cost of heap leaching up to 100,000 tonnes per quarter of Selinsing low grade ore has been estimated to be US\$7.09/t. This figure comprises an initial estimate of US\$4.06/t made by Moncoa and Metallurgical Design. Metallurgical Design subsequently increased this to \$5.39/t to account for increasing pump power requirements as the heap leach operation expands.

A further US\$1.70 has been allowed for ex-mine costs.

### GOLD RECOVERY AND TREATMENT COST ASPECTS OF THE SELINSING DEPOSIT

The information in the report that relates to gold recovery and treatment cost aspects of Selinsing ore used for the Mineral Reserve estimate is based on information compiled by Michael John Kitney who is a member of the Australasian Institute of Mining & Metallurgy. Michael John Kitney is a full-time, self-employed professional within the minerals treatment sector and possesses sufficient relevant experience to assess the treatment response of the deposit under consideration and to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Michael John Kitney consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

Signed / Date:

michael f. taky

Michael Kitney MAusIMM, MSc

6th December, 2006

B Metallurgical Design – Heap leach gold recovery and treatment costs



18E Kirkham Hill Terrace Maylands 6051 WESTERN AUSTRALIA Tel: +61 (0)8 92721618 mikekitney@westnet.com.au

November 13<sup>th</sup>, 2006

Dear Frank

Snowden 87 Colin Street West Perth 6005 WESTERN AUSTRALIA

### Re: Selinsing Project – Low Grade Heap Leach Potential

Further to a request from Robert Baldock I have reviewed data available to me in terms of possible gold recovery in a heap leach environment at Selinsing and possible costs to establish and operate a heap leach at the project site.

In summary:

- I recommend using a low grade heap leach recovery factor of 50%;
- The heap leach set-up cost of RM450,000 assumed by Robert is fair; and
- The heap leach operating cost of RM15.06/t per 100,000 t pad assumed by Robert is possibly low. I recommend that this allowance be increased to RM20/t.

I have included some explanatory notes below. These are drawn from my recent heap leach project experience in Indonesia and in Tajikistan before that.

Yours faithfully

Mike Kitney METALLURGICAL DESIGN

### **Explanatory Notes:**

### 1 Extraction

The following comparative data have been compiled based on the author's experience in Indonesia and Tajikistan:

Ore Type	Head Au, g/t	Passing size, mm	Extraction %	Tail Au, g/t	Leach time
Selinsing LG (Ammtec 5447)	1.87	0.075	75.8	0.45	48 h
Selinsing LG (Ammtec 5447)	2.56	0.075	59.9	1.03	48 h
Tajikistan LG1, column	0.5	200	56	0.22	32 d
Tajikistan MG, column	0.75	50	52	0.36	42 d
Tajikistan LG2, column	0.56	200	63	0.21	26 d
Tajikistan LG, dump	0.5	600	50	0.25	61 d
Indonesia, column	1.2	100	73	0.30	110 d

The above data represent the behaviour of "oxide" ores that have been weathered to various degrees. The Tajik ores contained no sulphide sulphur, the Indonesian ore contained less than 1% sulphide sulphur while the Selinsing ore contains some 1.5% sulphide sulphur. Low sulphur ores indicate that a tail containing less than 0.3 g/t could be achievable from leached weathered oxide ores, the nature and performance of the Selinsing material suggest that achieving a low tail grade would be unlikely. For this reason a tail grade of 0.5 should be assumed.

### 2 Capital Cost

Capital cost data available for a heap leach project completed in Indonesia in mid 2004 support the assumptions contained in the estimate provided by R Baldock. The costs of key components of leach pad construction and lining and principal piping and pumping equipment compare favourably with costs experienced then after allowing for escalation.

### 3 Operating Costs

A similar comparison of the operating cost assumptions suggest that the estimate provided is low. It is considered that an additional allowance of RM5/t over the total of RM15/t should be allowed for ore crushing and handling; i.e. operating cost allowance should be RM20/t.

### 4 Testing

The foregoing has been based on drawing comparisons with other "oxide" ore heap leach projects that may ultimately bear limited resemblance to the Selinsing situation. The veracity of the assumptions and recommendations made will best be confirmed by the execution of a suitable test programme. However, for the purposes of the exercise envisaged by the Client it is believed the recommendations made herein will provide a reasonable guide to the outcome of the low grade heap leach proposed for Selinsing.

C Snowden Memorandum - Selinsing open pit design parameters

### 1. Introduction

Snowden Mining Industry Consultants (Snowden) has reviewed the preliminary geotechnical assessment for the Selinsing open pit undertaken in 1997 by Golder Associates (Golder) for Target Resources Australia NL (TRA). This review has been undertaken to provide an opinion as to the level of confidence to be attached to the pit slope design parameters presented by Golder, which are currently being used in further mine engineering studies. No additional data have been reviewed other than those presented in Golder's 1997 report. Previous mining in the area has been undertaken by both open pit and underground methods.

### 2. Discussion

This section discusses the data and assessments presented in the 1997 Golder report.

### 2.1 Scope of Work

The stated objective of work for the Golder assessment was to provide feasibility level slope design guidelines for the proposed development of the Selinsing pit. The scope of work followed consisted of the following:

- Data Collection:
  - Review of available information
  - Geotechnical mapping of available exposures
  - Geotechnical logging of diamond core from the likely pit wall positions
  - Laboratory rock compressive strength and defect shear strength testing
- Formulation of a geotechnical model
- Analysis of identified mechanisms of slope instability
- Reporting

### 2.2 Geology and Geotechnical Character

The mine is located in faulted sheared and folded rock units consisting of fine grained arenites, argillites, carbonaceous shale and felsic tuffs which host the mineralisation. A limestone unit overlies these sediments to the south and east.

A regional shear fabric dominates the rock mass and dips at moderate to steep angles to the east. Where the shear fabric has been undercut by the west wall of the existing pit, batter scale sliding has developed along foliation parallel discontinuities. Mapping in the current pit indicates that the shear fabric orientation varies to some degree, being flatter above the 490 mRL, west of 740 mE and north of 1970 mN (1997 mine grid coordinates). Towards the east the shear fabric appears to steepen. Defects developed sub-parallel to the shear fabric have spacings less than 1 m and persistence of up to 7 m. A series of clay filled faults (1 mm to 5 mm infill thickness) have also developed sub-parallel to the shear fabric.

The contact between the limestone unit and underlying sediments is intensely sheared (polished, slickensided and graphitic surfaces) and broken and appears to contain sizeable cavities. Weathering of the sedimentary rock mass to very weak clays (for a down hole distance of 25 m in one hole) is also indicated.

Apart from the pervasive shear fabric, a number joint sets have also been identified with spacing between 1 m and 6 m and continuities up to 8 m.

Rock strength within the footwall sediments has been estimated at up to 250 MPa but is typically between 50 MPa and 150 MPa. The hangingwall units have a rock

strength of about 100 MPa. Little strength data are available for the extremely weathered rock mass except in two holes. One borehole intersects the limestone/sediment contact and indicates very weak materials at this contact, and a second hole intersects approximately 50 m of deeply weathered material from ground surface and indicates typical strengths of between 50 MPa and 75 MPa.. Depth of extreme weathering appears to be in the order of 40 m although this is hard to judge as most of this material has already been removed by the current pit.

Little hydrogeological data are available and limited analysis had been undertaken, but it is known that the current pit floor is below the natural ground water table, and floods when pumps in old underground workings are turned off. It was interpreted that the quartz veining and limestone (which is cavernous in some areas) form the principal aquifers.

### 2.3 Pit Wall Stability

Pit wall stability assessments were undertaken by Golder for the identified failure mechanisms, which included:

- planar and wedge sliding on the west wall (footwall) associated with the pervasive shear fabric.
- wedge and toppling failures on the east wall (hangingwall).
- wedge failures on the north and south walls (end walls).

No probabilistic assessment of structurally controlled instability was undertaken and no rock mass shear failure mechanisms were investigated for the weaker, weathered rock units.

Based on these assessments, pit wall design parameters were given for the identified design sectors as detailed in the table below. It should be noted that slopes developed using the recommended batter/berm combinations have overall slope angles less than that recommended in the below table and therefore slopes designed using the recommended batter/berm combinations meet all the geotechnical design requirements.

Design Sector	Max. Batter Angle (°)	Max. Batter Height (m)	Min. Berm Width (m)	Max. Overall Wall Angle (°)
West Wall: above 530m RL (highly weathered zone)	40 or parallel to shear fabric, whichever is flatter	10	5	37
West Wall: 530 mRL to 490 mRL	40 or parallel to shear fabric, whichever is flatter	20	Not supplied	Not supplied
West Wall: Below 490 mRL	55 or parallel to shear fabric, whichever is flatter	20	5	45
East Wall	60	20	5	55
North Wall	60	20	5	55
South Wall	60	20	5	55

Recommended Pit Wall Design Parameters (After Golder 1997)
Some discussion around these recommended design parameters was given. However, it is not clear what the actual factors of safety (FoS) or associated probabilities of failures are. Table 5 of the Golder report states ranges of FoS for a number of the identified failure mechanisms, with some quoted as low as 0.6. It is therefore not possible to gauge the likely risk of instability associated with the recommended designs. On the west wall (footwall) this is not a significant issue as it is clear that batter angles will have to follow the dominant shear fabric and hence will have low incidence of failure with respect to instability along this fabric (assuming walls are developed as recommended). However, on the remaining walls where wedge failures may dominate, this information is important as it allows some assessment of the likely size of failure and the required catch berm capacity.

The potential impact of the apparently very weak material (up to 25 m thick) below the limestone contact has been commented on only briefly in the Golder report, which states that it will affect small areas of the north and south walls. Depending on the ultimate pit geometry, this weak zone, along with potentially large quantities of ground water, may also affect large portions of the east wall. In this case, the recommended design parameters will likely need to be adjusted.

## 3. Conclusions and Recommendations

The major geotechnical risks to the proposed Selinsing pit are considered to be batter and multi-batter scale instability by planar sliding on shear fabric parallel structures on the west wall, and batter to multi batter scale instability developing through weak and weathered rock units, particularly on the east wall but also on the north and south walls. The pit wall design guidelines supplied by Golder are considered to adequately address the west wall issues. If large zones of weak rock (associated with weathering at ground surface or the limestone /sediment contact) intersect the east, north or south walls then the slope design parameters provided by Golder are considered to be too aggressive. It is therefore recommended that the likelihood of the proposed pit intersecting significant exposures of weak/weathered material be determined, in the first instance, by simply intersecting the proposed pit with the geotechnical domains as currently understood. Should the exposures of weak rock be significant then consideration should be given to reducing slope angles in these areas. At this stage, however, there appear to be little data on which to make these modifications with any confidence.

It is also recommended that the currently available structural data be re-assessed with the aim of improving the confidence in the slope design parameters where wedge failures are the likely dominant slope instability mechanism.

The Golder report makes a number of recommendations concerning the need for further geotechnical work at Selinsing including:

- evaluation of the variability in the orientation of the shear fabric
- the nature of the contact between the limestone and underlying sediments
- the extent of cavities within the limestone
- the extent of old underground workings and their interaction with the proposed pit wall
- a comprehensive hydrogeological investigation.

These recommendations are all endorsed by Snowden.