

APPENDIX B. BDA INDEPENDENT TECHNICAL REVIEW – AUG 2011



# **Minerals Industry Consultants**

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12 August 2011

The Board of Directors CNMC Goldmine Limited 5 Shenton Way #11-03 UIC Building Singapore 068808 Mr Mark Liew, Managing Director, Corporate Finance PrimePartners Corporate Finance Pte. Ltd. #21-02 Equity Plaza Singapore 049705

Dear Sirs

# INDEPENDENT TECHNICAL REVIEW SOKOR GOLD PROJECT - KELANTAN - MALAYSIA - CNMC GOLDMINE LIMITED BEHRE DOLBEAR AUSTRALIA PTY LIMITED

The Sokor gold project ("the project") in Kelantan State in northern Peninsular Malaysia is currently owned 81% by CNMC Goldmine Limited ("CNMC") through its subsidiary CMNM Mining Group Sdn. Bhd. ("CMNM"). CMNM holds the rights to mine and produce gold from an area of approximately 10 square kilometres ("km²") in the Ulu Sokor area in Kelantan (the "Sokor Block"). CNMC, through its subsidiary MCS Mining Group Sdn. Bhd., has also made application for a renewal of an exploration licence covering up to 62.8km² surrounding the Sokor Block. CNMC has commissioned the construction of a 60,000 tonne per annum ("tpa") vat leaching facility; the first production gold pour took place on 14 July 2010.

On 5 August 2011 CNMC announced that it plans a listing on the Catalist Board of the Singapore Exchange Securities Trading Limited ("SGX-ST") by way of an Initial Public Offering ("IPO"). CNMC is being advised by Prime Partners Corporate Finance Pte. Ltd.

CNMC has requested that Behre Dolbear Australia Pty Limited ("BDA") carries out a technical due diligence review of the project and prepares an independent technical report and risk assessment, consistent with the requirements of the Rules Governing the Listing of Securities on the Catalist Board of the SGX-ST.

BDA is the Australian subsidiary of Behre Dolbear & Company Inc., an international minerals industry consulting group which has operated continuously worldwide since 1911, with offices in Denver, New York, Toronto, Vancouver, Guadalajara, Santiago, Hong Kong, London and Sydney. Behre Dolbear specialises in mineral evaluations, due diligence studies, independent expert reports, independent engineer certification, valuations, and technical audits of resources, reserves, mining and processing operations and project feasibility studies.

This report contains forecasts and projections based on data provided by CNMC. BDA's assessment of the resources/reserves, production schedule, the projected capital and operating costs and the estimate of mine life are based on technical reviews of project data and discussions with technical personnel. BDA has reviewed the relevant data to assess the reasonableness of such projections. However, these forecasts and projections cannot be assured and factors both within and beyond the control of the company could cause the actual results to be materially different from BDA's assessments and any projections contained in this report.

Denver New York Toronto London Guadalajara Santiago Sydney

This report provides an independent assessment of the technical aspects of the Sokor gold project and potential risks. The report is provided to the Directors of CNMC in relation to the proposed Catalist Board listing on the SGX-ST; it should not be used or relied upon for any other purpose. The report does not constitute a technical or legal audit. Neither the whole nor any part of this report nor any reference thereto may be included in, or with, or attached to any document or used for any purpose without BDA's written consent to the form and context in which it appears.

Yours faithfully

BEHRE DOLBEAR AUSTRALIA PTY LTD

Malcolm C Hancock Executive Director - BDA John S McIntyre Managing Director - BDA

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# INDEPENDENT TECHNICAL REVIEW

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#### INDEPENDENT TECHNICAL REVIEW

# SOKOR GOLD PROJECT - KELANTAN MALAYSIA - CNMC GOLDMINE LIMITED

#### 1.0 INTRODUCTION

CNMC Goldmine Limited ("CNMC" or "the company") through its subsidiary CMNM Mining Group Sdn. Bhd. ("CMNM") holds an 81% interest in the Sokor gold project (Figure 1). CMNM holds the rights to mine and produce gold from an area of approximately 10 square kilometres ("km²") in the Ulu Sokor area in Kelantan (the "Sokor Block"). CNMC, through its subsidiary MCS Mining Group Sdn. Bhd. ("MCS"), has also lodged an application for renewal of an exploration licence covering up to 62.8km² surrounding the Sokor Block. CNMC has commissioned the construction of a 60,000 tonne per annum ("tpa") vat leaching facility; the first production gold pour took place on 14 July 2010.

On 5 August 2011 CNMC announced that it plans a listing on the Catalist Board of the Singapore Exchange Securities Trading Limited ("SGX-ST") by way of an Initial Public Offering ("IPO"). CNMC is being advised by Prime Partners Corporate Finance Pte. Ltd. ("PPCF"). CNMC has requested that Behre Dolbear Australia Pty Limited ("BDA") carries out a technical due diligence review of the project and prepares an independent technical report and risk assessment, consistent with the requirements of the Rules Governing the Listing of Securities on the Catalist Board of the SGX-ST.

CNMC commenced exploration in 2007 within the Sokor Block in an area previously subjected to gold exploration and small scale gold mining. CNMC has completed geological mapping, soil sampling, geophysical surveys and surface trenching and diamond drilling. The exploration has defined sufficient resources and mineable reserves contained in four separate deposits for CNMC to commence gold production based on mining and treating near surface oxide ore from two of the deposits. Gold mineral resources (inclusive of ore reserves) currently total 2.2 million tonnes ("Mt") at 2.62 grams per tonne gold ("g/t Au") with contained gold of 183,500 ounces ("ozs"). Ore reserves total 989,000t at 2.21g/t Au with contained gold of 70,300ozs, of which proved gold reserves amount to 204,000t at a grade of 3.64g/t Au with contained gold of 23,900ozs, and probable gold reserves amount to 785,000t at a grade of 1.84g/t Au with contained gold of 46,000ozs.

The initial mine development consists of construction of a crushing and stockpile facility, vat leaching and gold processing plant with a capacity to treat around 60,000tpa at an estimated head grade of 5.0g/t Au from the Manson's Lode And New Discovery deposits, and with a gold metal recovery of 80%. CNMC completed the first gold pour during July 2010 and continues to ramp up plant throughput to the planned production rate of 60,000tpa. CNMC plans to increase throughput to around 80,000tpa during the second year of production, through commissioning of a heap leach facility and also increasing the size of the vat leach facility.

CNMC plans to use the revenue from gold production, supplemented by capital raising, to continue exploration over the remainder of the Sokor Block and within the surrounding EL of up to 62.8km<sup>2</sup> in order to increase gold resources and mineable reserves, and to complete a feasibility study on the exploitation of the primary sulphide ore at depth using a carbon in leach ("CIL") process.

BDA is the Australian subsidiary of Behre Dolbear & Company Inc., an international minerals industry consulting group which has operated continuously worldwide since 1911, with offices in Denver, New York, Toronto, Vancouver, Guadalajara, Santiago, Hong Kong, London and Sydney. Behre Dolbear specialises in mineral evaluations, due diligence studies, independent expert reports, independent engineer certification, valuations, and technical audits of resources, reserves, mining and processing operations and project feasibility studies.

BDA is well acquainted with the Sokor gold project. BDA first visited the project site at Ulu Sokor in October 2007 to review CNMC's exploration and mineral resource and ore reserve estimation procedures. BDA made a further visit to review initial exploration drilling results and ongoing exploration procedures in April 2008. More recently BDA made site visits in June and August 2010.

BDA's review covers the geology, exploration, resources and reserves, mining, processing, infrastructure, environmental and social aspects of the project, project approvals, project implementation, capital and operating costs and project risks.

BDA has reviewed the project resources and reserves in accordance with Australian industry standards and for compliance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, December 2004 ("JORC Code"). BDA has not undertaken an audit of the data or re-estimated the resources or reserves and has relied on the data,

reports and information which have been provided by CNMC; BDA has nevertheless made such enquiries and exercised its judgement as it deems necessary and has found no reason to doubt the reliability of the data, reports and information which have been provided by CNMC.

CNMC has reported its mineral resource estimate under the Chinese 1999 Classification of Resources/Reserves for Solid Fuels and Mineral Commodities (GB/T 17766-1999) ("Chinese Code"). The resource estimates were prepared by CNMC's Chief Geologist and the directors of CNMC accept responsibility for these estimates. An examination of the allocation of geological confidence under the Chinese Code as applied to the Sokor resource estimates suggests that in terms of broad categorisation, the levels of geological confidence are similar to those which would be ascribed to Measured and Indicated resources under the JORC Code, considering aspects such as the ranges of drill hole spacing, cut-off and quality limitations.

BDA has reviewed the mineral resource estimates reported by CNMC and has tabulated the respective resources according to the comparable JORC Code categorisation in this report. BDA has reviewed the data, reports and information provided and has used consultants with appropriate experience and expertise relevant to the various technical aspects in this report and believes that the resources and reserves as reported by CNMC and which have been tabulated in this report according to the comparable JORC Code categorisation have been reasonably made and are in compliance with the reporting standards under the JORC Code. Malcolm C Hancock and John S McIntyre, directors of BDA and fellows of the Australian Institute of Mining and Metallurgy, and Mr George Brech, Senior Geological Consultant and Member of the Australasian Institute of Mining and Metallurgy, fulfil the requirements of qualified persons and accept responsibility for the independent technical report and the comparable JORC Code categorisation of the resource estimate as tabulated in the form and context in which it appears in this report.

BDA has not reviewed the tenement status with respect to any legal or statutory issues. CNMC advises that there are no title impediments to the proposed operation and that all project tenements are in good standing. BDA notes that CNMC has appointed Malaysian legal advisors Skrine to report on the validity of relevant project licences, permits and approvals which CNMC requires to carry on its mining operations. Skrine's legal opinion states that to the best of its knowledge and based on the disclosures by CNMC to Skrine, CMNM has obtained the relevant material licences, permits and approvals for its mining operation and has complied with the conditions imposed thereunder.

This report contains forecasts and projections based on data provided by CNMC. BDA's assessment of the production schedule, the projected capital and operating costs and the estimate of mine life are based on technical reviews of project data and discussions with technical personnel. BDA has reviewed the relevant data to assess the reasonableness of such projections. However, these forecasts and projections cannot be assured and factors both within and beyond the control of the company could cause the actual results to be materially different from BDA's assessments and any projections contained in this report.

This report provides an independent assessment of the technical aspects of the Sokor gold project and potential risks. The report is provided to the Directors of CNMC for the purpose of the proposed listing on the Catalist Board of the SGX-ST; it should not be used or relied upon for any other purpose. The report does not constitute a technical or legal audit. Neither the whole nor any part of this report nor any reference thereto may be included in, or with, or attached to any document or used for any purpose without BDA's written consent to the form and context in which it appears.



**Sokor Gold Project** 

**CNMC** Goldmine Limited

# 2.0 EXECUTIVE SUMMARY

# 2.1 Background

BDA has conducted an independent technical review of the Sokor gold project in Kelantan State in northern Peninsular Malaysia, the proposed development plans and the current state of gold production on site. Site visits have been undertaken to the project in 2007 and 2008 and more recently in June and August 2010. BDA has reviewed resource and reserve estimates, details of mining plans and schedules, processing operations, metallurgical testwork, proposed flowsheets, environmental aspects and approval status, implementation plans and projected capital and operating costs, consistent with the requirements of the Rules Governing the Listing of Securities on the Catalist Board of the Singapore Exchange Securities Trading Limited. Discussions have been held with project and management personnel.

# 2.2 Project Overview

The Sokor gold project is currently owned 81% by CNMC Goldmine Limited through its subsidiary CMNM Mining Group Sdn. Bhd. The project is located in the Ulu Sokor region of Kelantan State in Malaysia. The project is approximately 80km southwest of Kota Bharu, the state capital. CNMC commenced exploration in 2007 within the Sokor Block in an area previously subjected to gold exploration and small scale gold mining. CNMC has completed geological mapping, soil sampling, geophysical surveys and surface trenching and diamond drilling within the Sokor Block. CNMC through its subsidiary MCS Mining Group Sdn. Bhd. has also lodged an application for renewal of an exploration licence covering up to 62.8km² surrounding the Sokor Block.

Exploration has defined sufficient resources and mineable reserves contained in four separate deposits for CNMC to commence gold production based on mining and treating near surface oxide ore from two of the deposits. Gold mineral resources (inclusive of ore reserves) currently total 2.2Mt at 2.62g/t Au with contained gold of 183,500ozs. Ore reserves total 989,000t at 2.21g/t Au with contained gold of 70,300ozs, of which proved gold reserves amount to 204,000t at a grade of 3.64g/t Au with contained gold of 23,900ozs, and probable gold reserves amount to 785,000t at a grade of 1.84g/t Au with contained gold of 46,000ozs.

The initial mine development consists of construction of a crushing and stockpile facility, vat leaching and gold processing plant with a capacity to treat 60,000tpa at an estimated head grade of 5.0g/t Au from the Manson's Lode and New Discovery deposits, and with a projected gold metal recovery of 80%. CNMC completed the first gold pour during July 2010. Between July and December 2010 CNMC treated approximately 6,000 tonnes of ore and completed five gold pours for a production of 554ozs at an estimated gold recovery of 74%, and is continuing ramp up of plant throughput. CNMC plans to increase throughput to around 80,000tpa during 2011 by commissioning a heap leach facility to treat oxide ore from Rixen's deposit commencing in the fourth quarter of 2011 and through increasing the size of the vat leach facility.

The project has obtained mining and environmental approvals from the state government. The Mining Scheme approval was obtained in January 2010 and is subject to initial mine production not exceeding 300,000tpa of mined ore. CNMC advises that this condition will be relaxed on submission to government of a full feasibility study and mine plan directed at expanding the project to include treatment of the primary gold sulphide mineralisation using a carbon in leach process. CNMC plans to continue exploration in parallel with gold production and aims to complete a feasibility study on an expanded project in the first half of 2012.

Environmental approvals for the project include submission of an Environmental Impact Assessment ("EIA") in January 2008 and a supplementary EIA report in March 2009 with approval received in June 2009. An Environmental Management Plan ("EMP") was submitted in February 2010 and an EMP - Additional Information report in March 2010, with approval received in April 2010. The EIA and EMP include approval for both heap leach and vat leach processing of gold ore at the Sokor mine site.

Corporate income tax in Malaysia is 25%. CMNM submitted an application to the Malaysian Industrial Development Authority ("MIDA") for Pioneer Tax Status which will entitle the project to 100% income tax exemption on statutory income for a period of five years, subject to certain conditions including the application for a Pioneer Certificate within 24 months from the date of such approval. CNMC advises that this application was approved by MIDA on 18 June 2010. However, as CMNM has not yet applied for the Pioneer Certificate and has not fulfilled the relevant conditions, tax exemption under the Pioneer Tax Status does not apply to CMNM at present.

CNMC plans to use the revenue from gold production, supplemented by capital raisings, to continue exploration over the remainder of the Sokor Block and within the surrounding EL in order to increase gold resources and mineable reserves, and to complete a feasibility study on the exploitation of the primary sulphide ore at depth using a carbon in leach process.

#### **Ownership/Tenement Holdings**

CNMC through its subsidiary CMNM Mining Group Sdn. Bhd. holds an 81% interest in the Sokor gold project. A 10% share of the project is held by the Kelantan State Government ("KSG") and the remaining 9% is held by other investors in Kelantan State. The 19% share held by the government and local investors is a non-contributory share during both exploration and development and mine production stages.

CNMC signed an agreement with the Kelantan State Economic Development Corporation ("KSEDC") on 16 May 2007 which led to the granting of mining rights to CMNM on 8 April 2008 for a period of 10 years over a  $10 \text{km}^2$  concession area in Ulu Sokor, referred to as the Sokor Block, and the granting of the first right of refusal for a 21 year mining rights renewal extension. CNMC through its subsidiary MCS Mining Group Sdn. Bhd. was also granted an Exploration Licence (EL2/2006) covering an area of up to  $62.8 \text{km}^2$ , with the exact area depending on availability of and access to land surrounding the Sokor Block. This EL licence has expired and an application for a renewal of the licence has been lodged by CNMC and is currently being processed.

A gold royalty of 5% of gross revenue is payable to KSG, and an additional tribute payment of 3% of gross revenue is payable to KSEDC.

BDA has not undertaken any due diligence review of the ownership or tenement status for the project. CNMC has advised BDA that CMNM's mining rights to the Sokor gold project are in good standing. BDA notes that CNMC has appointed Malaysian legal advisors Skrine to report on the validity of relevant project licences, permits and approvals which CNMC requires to carry on its mining operations. Skrine's legal opinion states that to the best of its knowledge and based on the disclosures by CNMC to Skrine, CMNM has obtained the relevant material licences, permits and approvals for its mining operation and has complied with the conditions imposed thereunder.

# Geology/Mineralisation

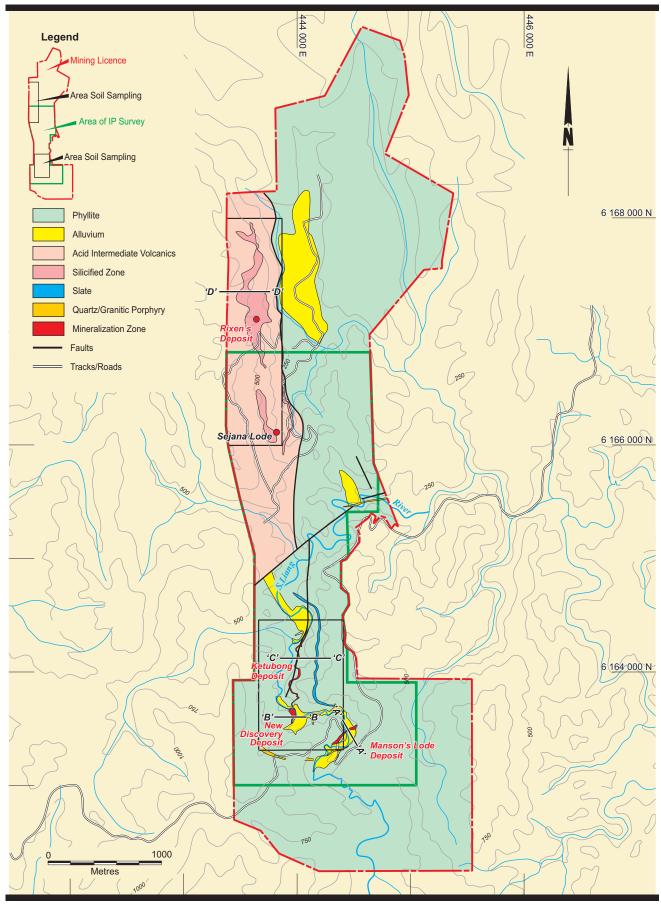
The Sokor gold project is located in the Central Belt of Peninsular Malaysia which extends from the Thailand border to Johore in the south of the peninsula and contains base metal and gold mineralisation. The Ulu Sokor area is underlain by north-south trending metasediments and volcanic rocks (Figure 2). CMNM's concession area is divided into two parts by the north-south trending Ketubong-Rixen fault. The southern and eastern parts are dominated by calcareous and argillaceous sediments interbedded with carbonate rocks which dip eastwards at 10-40°. The western part of the concession is dominated by tuffaceous volcanic rocks interbedded with minor calcareous phyllites and carbonate rocks.

Gold mineralisation in the concession is both lithologically and structurally controlled. CNMC has defined three deposits in the southern part of the concession, Manson's Lode, New Discovery and Ketubong, and a fourth deposit, Rixen's approximately 3km to the north of Ketubong. Gold mineralisation is generally hosted in acid to intermediate volcanic rocks and in carbonate-rich rocks, and is associated with major fault structures. The gold mineralisation ranges in thickness from a few metres up to 35m and generally dips to the east at relatively shallow angles of 10-30°. Gold is typically enriched near the surface and is associated with pyrite and minor base metal sulphides including chalcopyrite, galena and sphalerite. The depth to the base of oxidation varies between deposits from a shallow depth of less than 3m in Ketubong to 40-60m in Rixen's.

Manson's Lode deposit extends over a strike length of 450m and has been defined by 120 drill holes totalling 4,904m. The deposit has been closely drilled on a 20m x 20m grid. Mineralisation consists of a mix of primary semi-massive sulphide mineralisation with lead, zinc and minor copper and the oxidised equivalent in the form of massive gossan. Drill hole gold grades in mineralisation range from 1-8g/t Au averaging around 3.5g/t Au; the silver grade averages around 92g/t Ag. Base metal grades average 2.2% Pb and 2.1% Zn; minor copper is also present.

The New Discovery deposit is located approximately 500m west-northwest of Manson's Lode. Gold is associated with the Ketubong-Rixen fault zone and has been defined over a strike length of 200m by 51 drill holes totalling 3,238m. The deposit has been drilled on a 20m x 20m grid in the oxide zone and on a 20m x 40m grid in the primary zone to a depth of 200m and remains open at depth. Drill hole gold grades range from 1-9g/t Au, averaging around 3.6g/t Au; silver and base metal grades are typically low.

The Ketubong deposit is located approximately 600m to the northwest of Manson's Lode and is a continuation northwards of the New Discovery deposit along the Ketubong-Rixen fault. The deposit has been defined by trenching and 10 drill holes totalling 1,743m over a strike length of 680m and remains open to the north. The deposit has limited potential for oxide resources due to the shallow depth of oxidation. The deposit requires additional drilling to adequately test the primary resource. Drill hole gold grades typically range from 1-10g/t Au in the primary zone, averaging around 2.6g/t Au; silver and base metal grades are low.



**Sokor Gold Project** 

**CNMC Goldmine Limited** 

LOCAL GEOLOGY AND DEPOSIT LOCATION SOKOR MINING LICENCE

Rixen's deposit is located 3km north of Ketubong and 5km from the process plant. Gold mineralisation is contained in silicified volcanic rocks to the west of the Ketubong-Rixen fault. The deposit has been delineated by soil sampling over a strike length of 800m and defined by drilling on a 100m x 100m grid over a strike length of 300m with nine drill holes totalling 904m. The deposit requires additional drilling to confirm continuity of grade and thickness in the area already drilled and step-out drilling along strike and down dip to test for extensions to the mineralisation. Drill hole gold grades average around 1.9g/t Au.

Gold, silver and base metal grades were determined by ALS Group by analysing the trench and diamond core samples from the trenching and drilling carried out by CNMC during the period 2007 to 2010.

There is considerable exploration potential to locate additional gold resources within CMNM's concession area and in the surrounding exploration licence which has yet to be systematically explored. Potential exists for extensions to the known deposits and in areas within the concession where to date only limited reconnaissance exploration has taken place. CNMC plans to commence a 10,000m diamond drilling programme in the first quarter of 2011 with the objective of increasing the resource base of the project by initially drill testing extensions to the known deposits of New Discovery, Ketubong and Rixen's and increasing the reserve base by converting Inferred resources to Measured and Indicated resources and thence to Proved and Probable reserves. This programme will be supplemented by a 2,500m reverse circulation ("RC") drilling (the first RC drilling to be undertaken by CNMC) designed exclusively to infill the Rixen's deposit.

In conjunction with the resource drilling programme, CNMC plans to conduct additional metallurgical testwork to assess the Rixen's and Manson's Lode oxide resources to heap leaching and to test primary resources from all four deposits for carbon-in-leach processing.

# Resources/Reserves

The Sokor gold mineral resource estimate (inclusive of ore reserves) as of June 2010 is shown in Table 2.1. The share of the gold mineral resources attributable to CNMC is 81%. Resources have been estimated for four known deposits, Manson's Lode, New Discovery, Ketubong and Rixen's, by CNMC's chief geologist. CNMC used the Chinese guidelines for resource estimation methodology and the 1999 Chinese Code for resource categorisation. BDA has reviewed the resource estimate and tabulated the resources according to the comparable JORC Code categorisation.

Table 2.1
Summary of Sokor Gold Resources - June 2010

Deposit	Type	Category JORC Code	Category Chinese Code	Tonnage kt	Gold Grade Au g/t	Contained Au kozs
Manson's Lode	Backfill	Measured	121b	101	1.73	5.6
Manson's Lode	Backfill	Inferred	333	29	1.86	1.7
				29		0.8
New Discovery	Alluvial	Measured	121b		1.10	
New Discovery	Alluvial	Inferred	333	13	0.82	0.3
All	Oxide	Measured	121b	71	7.62	17.5
All	Oxide	Indicated	122b	747	1.93	46.4
All	Oxide	Inferred	333	338	2.26	24.6
Sub-Total	Bck/Alluv/Ox	Measured	121b	194	3.81	23.9
Sub-Total	Bck/Alluv/Ox	Indicated	122b	747	1.93	46.4
Sub-Total	Bck/Alluv/Ox	Inferred	333	380	2.18	26.6
Sub-Total	Bck/Alluv/Ox	Meas/Ind/Inf	121b/122b/333	1,321	2.28	96.9
All	Primary	Measured	121b	433	3.39	47.3
All	Primary	Indicated	122b	88	1.79	5.1
All	Primary	Inferred	333	340	3.14	34.2
Sub-Total	Primary	Meas/Ind/Inf	121b/122b/333	861	3.13	86.6
Total	All	Meas/Ind	121b/122b	1,462	2.61	122.7
Total	All	Inferred	333	720	2.63	60.8
Total	All	Meas/Ind/Inf	121b/122b/333	2,182	2.62	183.5

Note: Deposits include Manson's Lode, New Discovery, Ketubong and Rixen's; cut off 0.5g/t Au; kt = thousand tonnes, kozs = thousand ounces; the total gold resources of 2,182kt includes gold ore reserves of 989kt

To date ore reserves have been estimated only for backfill, alluvial and oxide ore in Manson's Lode, New Discovery and Rixen's deposits. Ore reserves are shown in Table 2.2. The share of the gold ore reserves attributable to CNMC is 81%. There has been no metallurgical testwork or mining studies completed on the primary mineral resource to enable it to be converted to ore reserves. CNMC plans to evaluate the primary mineral resource in the future, on completion of additional resource drilling.

Table 2.2 Sokor Gold Ore Reserves - June 2010

Deposit	Туре	Category JORC Code	Tonnage kt	Gold Grade Au g/t	Contained Au kozs
Manson's Lode	Backfill	Proved	106	1.65	5.6
Manson's Lode	Oxide	Proved	36	6.11	7.0
Sub-Total	All	Proved	142	2.77	12.6
New Discovery	Alluvial	Proved	24	1.05	0.8
New Discovery	Oxide	Proved	39	8.32	10.5
Sub-Total	All	Subtotal	63	5.60	11.3
Rixen's	Oxide	Probable	785	1.84	46.4
Sub-Total	Oxide	Subtotal	785	1.84	46.4
Total	All	Proved	204	3.64	23.9
Total	All	Probable	785	1.84	46.4
Total	All	Prov/Prob	989	2.21	70.3

Note: cut off 0.5g/t Au; Mining Recovery 100%: Mining Dilution 5% at zero grade

The designed open pits include approximately 380kt of Inferred oxide resource at an average grade of 2.2g/t Au; in accordance with the JORC Code this material has not been included in ore reserves and has been designated as waste in the mining schedules; however, there are reasonable expectations that much of this material will be proved up during grade control drilling.

Based on the projected mining rate the defined ore reserve will support a two year mine life (2011-2012), with a waste to ore stripping ratio of approximately 1.6:1. CNMC has assumed oxide ore reserves from 2013 will be generated by conversion of Inferred resources to ore reserves and by an increase in the current resource base through additional drilling, mainly in the Rixen's deposit. CNMC also plans to treat primary resources which is planned to be converted to ore reserves on successful completion of metallurgical testwork demonstrating that the primary material is suitable for processing though a CIL plant.

Dilution has been estimated at 5% at zero grade and mining recovery at 100%; BDA suggests both figures are likely to prove optimistic.

BDA considers that the remainder of the Sokor Block and the surrounding exploration licence are prospective and that there is good potential to add significantly to the resource and reserve base over time with ongoing systematic exploration.

# Mining

The mine plan has extraction of ore from three separate pits, Manson's Lode, New Discovery and Rixen's using open pit mining of ore and waste based on conventional open pit mining methods with hydraulic excavators and dump trucks. The planned Manson's Lode and New Discovery pits are located within a radius of approximately 1km from the treatment plant, while the planned Rixen's pit and associated heap leach pads are approximately 5km north of the treatment plant.

The deposits are hosted in intermediate to acid tuffaceous rocks and carbonate rocks. The ore zones at each of the deposits, which range in thickness from a few metres to over 35m, strike approximately north-south and dip gradually to the east at between  $10-20^{\circ}$ . Generally the rock strengths range from relatively weak in the oxidised zone to strong in the primary rock types in the hanging and footwall of the fault/shear zones that contain the majority of the mineralisation.

A mining study has been carried out by Central South University ("CSU") from Changsha, China. All optimisation parameters were supplied by CSU or derived in consultation with CSU and are consistent with a nominal 300-600ktpa on-site mineral processing operation. The pit slope angles were assumed at 48-50° for the hangingwall of the orebodies and 26-42° for the footwall. Dilution allowances of a nominal 5% have been included in the estimates and mining recovery has been assumed to be 100%. CSU was commissioned by CNMC to prepare an Ore Reserve estimate which was based on the open pit designs prepared from the optimisation work. The oxide ore reserve for the three pits totals 989,000t at a grade of 2.21g/t Au and the total oxide and primary ore within the pit designs together with the Inferred resources totals 1.88Mt at a grade of 2.6g/t Au.

Mining operations are planned to be conducted by contractors using 1.8 cubic metre ("m³") hydraulic excavators and 20t rear-dump trucks. The mining contract will initially be carried out by a small scale contractor supervised by CNMC mining engineers but for the higher rates of production CNMC intends to engage a Chinese mining company to undertake the mining operation.

All pits are planned to be backfilled after completion of mining, and reclamation work carried out.

Most of the material will be drilled and blasted with 5m to 10m high benches using 115 millimetre ("mm") drill holes and use of emulsion explosives due to the likely presence of water. Grade control in the pit will be conducted using reverse circulation drills.

BDA is unaware of any specific geotechnical investigations and recommends that an assessment based on drill-hole logs and core analysis be used to identify possible structures and determine rock strength. Geotechnical assessment has not been carried out in any detail but the footwall slope angles of the planned pits are reasonably conservative; the hangingwall pit slopes angles are between 45-50° and while the planned pits are relatively shallow, further review of the slope angles prior to mining is considered important.

CNMC has identified that groundwater inflow to the pits is an important issue at Sokor. Perimeter drains are planned to be established at each pit to prevent the inflow of runoff water from rainfall. Low lying areas of the pit rim are planned to be bunded to protect against inflow in the event of high rainfall events.

# **Processing**

CNMC engaged Changchun Gold Research Institute ("CGRI") to carry out process testwork in 2008 and subsequently to design a process for recovery of gold and silver from Sokor ores. A vat leaching plant was constructed on the site in early 2010 and operations commenced in July 2010. About 6,000t of ore had been processed by the end of December 2010.

CNMC plans to add a heap leaching plant in the fourth quarter of 2011 for further processing of oxide ore and, subsequently, a CIL plant to process primary material. Process throughput is projected by CNMC to increase from 6kt of ore in the half year from July to December 2010 to 84kt in 2011 and then to an average of around 900ktpa from 2012 to 2014. In the period from July to December 2010 approximately 6,000t of ore was processed and 554ozs of gold were recovered, equivalent to approximately 74% recovery from a head grade estimated at 3.9g/t Au.

Process testwork has indicated that the oxidised ore in Manson's Lode and Rixen's deposits is amenable to heap leaching. However, BDA has some reservations concerning the project site water balance which will be subjected to monsoonal rain storms. Heap permeability can be affected by heavy rainfall onto the surface of a heap and high inflows of water must be contained and detoxified prior to discharge.

No process testwork has yet been carried out on primary ore to test the proposed CIL processing route. Projections of performance on primary ore may therefore not be accurate.

# Infrastructure

The Sokor gold project site is located around 75km south of Kota Bharu, in the state of Kelantan, Malaysia. Access to the site from Kota Bharu is mainly by sealed highways and local roads except for the final 18km, which is via a logging track which necessitates four-wheel-drive capability.

The climate is tropical monsoonal with the wettest months being November to January.

Power to the plant is provided by diesel generators with a total capacity of 950kW. Smaller units supply power to offices and the accommodation camp. Process water is sourced from local streams, with potable water being trucked to the site. Offices, camp, assay laboratory and maintenance facilities have been constructed on site. Communications are based on a satellite telephone system.

The infrastructure is considered appropriate for an operation of the style planned at Sokor.

# **Environmental and Community Issues**

The project has obtained its mining and environmental approvals from the KSG. The Mining Scheme approval was obtained in January 2010.

Environmental approvals for the project include submission of an Environmental Impact Assessment in January 2008 and a supplementary EIA report in March 2009 with approval received in June 2009. An Environmental Management Plan was submitted in February 2010 and an EMP - Additional Information report in March 2010, with approval received in April 2010. The EIA and EMP include approval for both heap leach and vat leach processing of gold ore at the Sokor mine site.

The project is in a high rainfall area. Kelantan has a tropical monsoonal climate, the wettest months occurring from November to January. The Kelantan State's average annual rainfall is in the range 2,032 - 2,540mm. The nearest meteorological station is 40km east of Sokor and at a lower elevation; this station's highest recorded annual rainfall is 2,752mm and its lowest is 1,543mm.

The main environmental risk areas of the project as proposed, relate to the potential for offsite water contamination via contaminated water run-off from the proposed heap leach area, the Tailings Storage Facility ("TSF"), the plant area and mining areas. The inclusion of environmental (settling) ponds and the proposed heap leach plant stormwater (safety) pond will mitigate the risk of offsite water contamination during operations. Water treatment may be necessary for an unspecified time following mine closure to handle residual cyanide within the heap leach structures whilst the heaps are being detoxified.

Specific drainage design elements, infrastructure layouts, erosion control structures and inclusion of a stormwater (safety) dam are planned to mitigate the risk of offsite water contamination occurring.

CNMC has identified the key potential environmental impacts arising from the project's operations and their associated mitigation measures which are being implemented. The project has an Environmental Management Plan which is approved by the Government agency and if implemented appropriately, should minimise the risk of environmental pollution.

The main social risk area relates to local communities becoming disenchanted from access to river fishing areas, employment issues, in-migration, disturbance from traffic or other social issues. To date however there appears to be a measure of goodwill, and anticipation of employment and other benefits which the Sokor mine development will bring.

CNMC has already made substantial efforts to integrate its project activities with the local communities and is assisting them in social and economic development programmes. The CNMC Group has a corporate policy on Social Responsibility and has been participating in community development projects which include emergency relief, poverty alleviation and education.

# Life of Mine ("LOM") Production Schedule

The production schedule shown in Table 2.3 is based on the production forecasts in the CNMC report for the period 2010 to 2014. The initial production for the period from 2010 to 2012 is based on ore reserves at a cut off grade of 0.5g/t Au while a further two years production is based on primary ore, Inferred resources and possible extensions at Rixen's pit.

Under the mine plan for the first initial period to 2012, ore production increases from an initial rate of 84,000tpa of ore in 2011 up to 705,000tpa of ore in 2012. The waste to ore stripping ratio over this period averages approximately 1.5:1. BDA notes that under the present terms of the mining approval, production is limited to 300,000tpa and further mining approval will be required during 2012.

Plant operation to date has been at about 1,000 tonnes per month ("tpm"). CNMC plans to commission an oxide heap leaching plant in the fourth quarter of 2011 and a CIL plant to process primary ore in 2013. Production is largely dependent on operation of the heap leaching process, which BDA considers could be affected by monsoonal rainfall. BDA also notes that a gold recovery of 80% has been assumed on primary ore, on which no testwork has yet been completed.

For the extended mine life to 2014 an additional ore mine inventory of 2.0Mt has been assumed with an overall ore and waste mining rate of around 3.3Mtpa. Ore production is forecast at 600,000tpa of ore to the heap leach pads at Rixen's while an initial 230,000t of primary ore will be treated in the CIL plant increasing to 490,000t in 2014. The waste to ore stripping ratio over the extended production period is approximately 2.3:1. While the initial mining is based on ore reserves estimated from a mine plan developed by CSU, the extended production schedule is based on more conceptual mine plans. The overall mine production schedule provides a general guide to the planned production but further work is required to confirm the parameters, resources and reserves used to prepare the mine plan.

Table 2.3

Sokor Gold Operation - Projected Production Schedule

Item	Unit	2010	2011	2012	Sub-total 2010-2012	2013	2014	Total 2010-2014
Ore Mined	kt	6.0	84.0	705.0	795.0	913.0	1,090.0	2,798.0
Waste Mined	kt	6.0	180.6	1,035.1	1,221.7	1,851.8	2,854.6	5,928.1
Material Mined	kt	12.0	264.6	1,740.1	2,016.7	2,764.8	3,944.6	8,726.1
Strip Ratio	W:O	1.0	2.2	1.5	1.5	2.0	2.6	2.1
Ore Treatment Destination								
Vat/Pond Leach	kt	6.0	22.0	40.0	68.0	43.0	0.0	111.0
Heap Leach	kt	0.0	62.0	665.0	727.0	640.0	600.0	1,967.0
CIL Leach	kt	0.0	0.0	0.0	0.0	230.0	490.0	720.0
Ore Treated	kt	6.0	84.0	705.0	795.0	913.0	1,090.0	2,798.0
Ore Grade	g/t Au	3.91	3.51	2.21	2.36	2.43	2.31	2.36
Au Recovery	%	74	70	70	70	73	74	73
Au Production	ozs	550	6,000	31,500	38,100	50,000	58,100	146,200

Note: production to 2012 is based on current reserves; reserves for 2013-2014 are still to be defined

# **Capital Costs**

The initial capital cost for the project was reported by CNMC as US\$1.18M and is summarised in Table 2.4.

Table 2.4
Sokor Gold Project Development Capital Expenditure to July 2010

Item	Total Capital US\$M
Mining Capital Costs	Nil
Process Plant Costs	0.92
Site Infrastructure Costs	0.26
Total	1.18

Note: CNMC reported capital costs in Malaysian Ringgit, conversion to US\$ at an exchange rate of 0.32

The forecast capital costs for expansion of the project in the period 2011 to 2013 are estimated by CNMC to be US\$8.14M. These forecast costs are summarised in Table 2.5.

Table 2.5
Sokor Gold Project Forecast of Future Capital Expenditure 2011-2012

Item	Total Capital US\$M
Expanding production capacity of plant	0.20
Multi-lift heap leaching system	1.50
CIL plant design and construction (500t/d)	3.50
Exploration Expenses	2.00
Contractor's Indirect Costs	0.20
Project Contingency	0.74
Total	8.14

The heap leach costs are spent primarily in 2011 and the CIL costs in 2012. The mine plan is to use contractors to carry out the mining operation removing the requirement to purchase mine equipment; all other mining costs are considered within the mine operating costs. There may be some capital costs within the mine, not identified in Table 2.5, such as the establishment cost of the Rixen mining area and mobilisation cost for the contractor as CNMC plans to use Chinese contractors; these costs are usually considered capital costs.

# **Operating Costs**

Site operating costs as set out in report from CNMC dated June 2010 are shown in Table 2.6; these cost estimates were prepared by CSU. Total site costs are projected to be US\$16.6M over the initial period from 2010 to 2012; process plant and mine operating costs comprise 37% and 26% of the total respectively. Other costs include administration and realisation costs and royalties. Cash cost of gold produced is projected to

average US\$438/oz for the first three years of the mine life and average US\$489/oz in the two further years of extended mine life.

Mine operating costs include both ore mining of US\$2.65/t of ore mined and waste mining costs of US\$1.76/t of waste mined. Ore mining includes the mining of the ore and grade control; waste mining includes both the initial mining and the subsequent reclamation of waste. It is planned to use a contractor to carry out the mining operation but at this stage there are no contract tenders to indicate the likely contract mining rates; generally BDA considers the mining costs to be preliminary.

Processing costs are estimated to average US\$11/t processed. Heap leach, vat leach and CIL processing costs have been estimated at US\$8/t, US\$10/t and US\$20/t respectively. These cost estimates are considered by BDA to be of a preliminary nature and likely to be accurate to  $\pm 50\%$ .

Table 2.6
Projected Operating Costs for the Sokor Gold Project

					Sub-total			Total
Item	Unit	2010	2011	2012	2010-2012	2013	2014	2010-2014
Production								
Ore Treated	kt	6	84.0	705	795	913	1,090	2,798
Gold Production	kozs	0.55	6.0	31.5	38.1	50.0	58.1	146.2
Costs								
Mining	US\$k	54	540	3,690	4,284	5,679	7,913	17,876
Processing	US\$k	60	716	5,320	6,096	10,150	14,600	30,846
Administration	US\$k	240	540	540	1,320	660	660	2,640
Realisation	US\$k	40	109	577	696	915	1,063	2,674
Total Operating Costs	US\$k	394	1,905	10,127	12,396	17,404	24,236	54,036
Royalties	US\$k	58	670	3,529	4,257	5,200	6,042	15,499
Total Cash Cost	US\$k	452	2,575	13,656	16,653	22,604	30,278	69,535
<b>Unit Costs</b>								
Mining	US\$/t	9.0	6.4	5.2	5.4	6.2	7.3	6.4
Processing *	US\$/t	10.0	8.5	7.5	7.7	11.1	13.4	11.0
Administration	US\$/t	40.0	6.4	0.8	1.7	0.7	0.6	0.9
Total Cash Cost	US\$/oz	816	431	433	438	452	521	475

<sup>\*</sup>Note: Unit costs are combined for vat leach, heap leach and CIL; royalty is based on a gold price of US\$1,300/oz

Administration charges are estimated at US\$540k per annum for 2011 and 2012 increasing to US\$660k for the period when the CIL plant will be operating in 2013-2014. A royalty is payable to the KSG equal to 5% of gross revenue and an additional tribute equal to 3% of gross revenue is payable to KSEDC.

Overall BDA considers the operating costs preliminary and accurate to  $\pm 50\%$ .

#### 3.0 RISK SUMMARY

# 3.1 Project Risk Summary

When compared with many industrial and commercial operations, mining is a relatively high risk business. Each orebody is unique. The nature of the orebody, the occurrence and grade of the ore, and its behaviour during mining and processing can never be wholly predicted.

Estimations of the tonnes, grade and overall metal content of a deposit are not precise calculations but are based on interpretation and on samples from drilling which, even at close drill hole spacing, remain a very small sample of the whole orebody. There is always a potential error in the projection of drill hole data when estimating the tonnes and grade of the surrounding rock. Even with close-spaced drilling, significant variations may occur.

Comprehensive metallurgical testwork can reduce the processing risks, but the questions of representivity and scale-up remain. Estimations of project capital and operating costs are rarely more accurate than  $\pm 15\%$  and, depending on the status of the estimate, several areas may be nearer to  $\pm 20$ -30%. Mining project revenues are subject to variations in metal prices and exchange rates.

In reviewing CNMC's Sokor gold project, BDA has considered areas where there is perceived technical risk to the operation, particularly where the risk component could materially impact the projected cashflows. The assessment is necessarily subjective and qualitative. Risk has been classified from low through to high. In Section 3.2, BDA has considered factors which may ameliorate some of these risks.

# **Risk Component**

# **Comments**

Resources/Reserves Medium Risk The geology and mineralisation controls at Sokor are reasonably well understood. Manson's Lode and New Discovery deposits are well defined. The Ketubong and Rixen's deposits are more widely drilled and the geology less well defined; both deposits require additional drilling to fully define resources.

The polygonal estimation methodology used to estimate gold resources is regarded in the mining industry as relatively simplistic and vulnerable to overestimation of grades, particularly in gold deposits. There is a possibility the average gold resource grades have been overestimated using this method, particularly in Ketubong and Rixen's where the number of drill holes used in the estimation is relatively small.

The currently defined oxide ore reserve is sufficient for a two year mine life at the production rate planned by CNMC. The production schedule for the period 2013 to 2014 assumes the proving up of Inferred oxide resources and potential oxide resources from Rixen's deposit and treatment via heap leach and the treatment of Measured and Indicated primary resources in a CIL plant. Definition of these oxide resources and conversion to ore reserves will require additional drilling. Conversion of the primary resources to reserves will require successful completion of metallurgical testwork that demonstrates suitability for processing through a CIL plant.

Open Pit Mining

Low/Medium Risk

The mining rate increases significantly over the proposed LOM, probably requiring equipment additions each year; a contractor should be able to meet these requirements, but at a cost. There is some risk that the operation may be constrained by poor performance due to high rainfall and the use of rigid trucks.

There has been no specific assessment of rock mechanics. There is some risk of localised wall failures, but the use of conservative wall angles on the footwall of each pit should minimise any material impact, together with the flexibility provided by multiple pits.

It is proposed that most of the waste will be backfilled which will require double handling; careful scheduling may minimise double handling and reduce costs.

Additional technical risks relate to the topography and rainfall. The impact of high rainfall needs to be taken into account in terms of pit and dump stabilities.

Risk Component	Comments
Processing  Medium Risk	Testwork indicates that oxidised ore is amenable to heap leaching with a forecast gold recovery of 80%. Testwork is yet to be completed on primary ore, however the production schedule assumes a gold recovery of 80%. There is a possibility that this recovery target will not be achieved.  The majority of gold production during the period 2011-2014 is projected to be via a heap leach plant. BDA has reservations concerning the viability of a heap leach operation in a tropical monsoonal environment given the need to control the water balance in such a plant.
Services and Utilities  Low/Medium Risk	Power costs will be relatively high due to the use of diesel fuel but alternatives (hydro and grid) would have a prohibitive capital cost given the scale of the operation. Water supply from local streams is considered adequate.
Tenement and Title  Low Risk	The granted mining tenements, together with Government mining approval are the over-riding legal documents for the ongoing exploration and development of the Sokor project, and appear to provide a sound basis for exploration and the proposed project expansion.
Social Issues Low Risk	The main social risk area relates to local communities becoming disenchanted from access to river fishing areas, employment issues, in-migration, disturbance from traffic or other social issues. To date however there appears to be a measure of goodwill, and anticipation of employment and other benefits which the Sokor mine development will bring.
Environmental Issues  Medium Risk	The main environmental risk areas of the project as proposed, relate to the potential for offsite water contamination via site contaminated water run-off from the proposed heap leach area, the TSF, the plant area and mining areas. The inclusion of environmental (settling) ponds and a proposed heap leach plant stormwater (safety) pond will mitigate the risk of offsite water contamination during operations. Water treatment may be necessary for an unspecified time following mine closure to handle residual cyanide within the heap leach structures whilst the heaps are being detoxified.
Production  Medium/High Risk	The proposed mining schedules are considered preliminary. The mine schedule for the initial period from 2010 to 2012 allows for the mining of the majority of the current ore reserves but the extended mine schedule (2013-2014) includes primary ore, Inferred resources and anticipated additional resources and hence has a higher risk.
	Maintaining production at the design rate with a high proportion of the projected ounces relating to a wet climate heap leaching operation is likely to be challenging.
Capital Cost High Risk	No details of the capital cost estimation have been provided and there is a significant risk of underestimation of the initial capital costs. No estimate has been provided for the mobilisation of Chinese contractors to site.
	The capital cost of the proposed CIL plant is preliminary as CIL comminution and leaching testwork has not yet been undertaken. Costs may be higher than projected if the ore is harder than projected or longer residence times are required in the leaching circuit.
Operating Cost High Risk	Mine operating costs have been estimated by CSU but no details have been provided as to the method of estimation or indications of current costs. BDA considers the mining and processing cost estimates are at a scoping study level and there is a significant risk of variation in the estimates.
Country and Political Risk	BDA is not expert in this area and makes no assessment of country or political risk. However, BDA observes that progress to date on the Sokor project has significantly reduced perception of country risk, and the efficacy of the mining tenements has been demonstrated through the exploration and development phases of the project to date. In terms of government approvals, access to land, local employment and local community relations, there appear to be no outstanding difficulties.

# 3.2 Risk Mitigation Factors

There are a number of factors which combine to reduce some of the risks identified above. Principal amongst these are:

- The geological investigations to date have been thorough and the drilling, logging, sampling and assay procedures adopted are appropriate and generally in accordance with industry standards. Overall the geological database forms an appropriate and reasonable basis for resource and reserve estimation.
- Additional exploration and resource definition is critical for expanding the project's resource base. CNMC has committed to undertaking a 10,000m diamond drilling programme in the first quarter of 2011 and a 2,500m RC drilling programme commencing in the latter part of 2011. These programmes are designed to infill and extend resource drilling on New Discovery, Ketubong and Rixen's together with drill testing of other targets within the Sokor Block.
- The surrounding exploration licence remains prospective for location of additional gold resources.
- The proposed wall angles are reasonably conservative and the pits relatively shallow, but failures may still occur, particularly in the weathered zones. It is intended to establish drainage channels around the pit perimeter to reduce the quantity of water entering the pit and damaging the walls.
- The project has obtained the necessary mining and environmental approvals from the state government.

#### 4.0 SOURCES OF INFORMATION

BDA has undertaken recent site visits to the Sokor gold project site in June and August 2010. Discussions have been held with technical and management staff on site, and in Singapore. The drilling undertaken to date has been reviewed, and drill core from several holes inspected. The location of the various prospects, planned mining areas, plant site and TSF site have been reviewed. Resources, reserves, mining, processing and waste disposal plans and environmental and social issues have been reviewed and discussed. The principal technical reports and documents reviewed are listed below:

# **CNMC Technical Data**

- Rixen Geology Report and Drill Logs, Asia Mining Sdn. Bhd., 1991
- Sokor Metallurgical Testwork, Asia Mining Sdn. Bhd., 1991
- Metallurgical Testwork, Changchun Institute, 2008
- EIA report, CNMC Goldmine Limited, January 2008
- EIA Supplementary Report, CNMC Goldmine Limited, March 2009
- EMP Report, Goldmine Limited, February 2010
- EMP Supplementary Report, March 2010
- Trench and Drill Hole Assay Database, CNMC Goldmine Limited, June 2010
- Geological Cross Sections for Manson's Lode, New Discovery, Ketubong and Rixen's Deposits, CNMC Goldmine Limited, June 2010
- Geology Map of Manson's Lode, New Discovery and Ketubong Deposits, Scale 1:1000, CNMC Goldmine Limited, June 2010
- Geology Map of Rixen's Deposit, Scale 1:5000, CNMC Goldmine Limited, June 2010
- Description Report for Gold Exploration Project (2007-2010) in Sokor District, Kelantan State, Malaysia, CNMC Goldmine Limited, June 2010

#### **General Data**

- Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves Report of the Joint Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, December 2004.
- The Chinese 1999 Classification of Resources/Reserves for Solid Fuels and Mineral Commodities (GB/T 17766-1999).

#### 5.0 SOKOR GOLD PROJECT

# 5.1 Project Location

The Sokor gold project is located in the Ulu Sokor region of Kelantan State in Malaysia. The project is approximately 80km southwest of Kota Bharu, the state capital. Access is by sealed road to Kampong Bukit Pauh, the closest village 18km from the site, and thence by an all-weather gravel logging track (Figure 1).

The nearest town is the district centre of Tanah Merah which is approximately 40km from the site. Tanah Merah is approximately 40km from the state capital, Kota Bharu, which is serviced daily by jet aircraft from Kuala Lumpur entailing a 55 minute flight.

The project is located in the upper catchment of the Sungai Sokor River. The topography consists of moderately steep hill ridges and narrow valleys. Elevations range from 200m to 900m above sea level. Vegetation cover is dense tropical rainforest that has been disturbed by logging and mineral prospecting. The area has a hot, tropical monsoonal climate with rain falling mainly in the November to January period. Annual rainfall in Kelantan averages between 2,000 - 2,500mm, but can be considerably more at Ulu Sokor.

# 5.2 Project Ownership and Approvals

CNMC through its subsidiary CMNM Mining Group Sdn. Bhd. holds an 81% interest in the Sokor gold project. A 10% share of the project is held by the Kelantan State Government and the remaining 9% is held by other investors in Kelantan State. The 19% share held by the government and local investors is a non-contributory share during both exploration and development and mine production stages. These interests are summarised in Table 5.1 below.

Table 5.1
Assets and Interests

Country/Asset	CNMC Interest	Development Status	Expiry Date	Area km²	Type of Mineral Deposit	Remarks
Malaysia						
ML 2/2008	81	Development	7.4 2018	10	Gold	Mining Rights

CNMC signed an agreement with the Kelantan State Economic Development Corporation on 16 May 2007 which led to the granting of mining rights to CMNM on 8 April 2008 for a period of 10 years over a  $10 \, \mathrm{km}^2$  concession area in Ulu Sokor, referred to as the Sokor Block, and the granting of the first right of refusal for a 21 year mining rights renewal extension. CNMC through its subsidiary MCS Mining Group Sdn. Bhd. was also granted an Exploration Licence (EL2/2006) covering an area of up to  $62.8 \, \mathrm{km}^2$ , with the exact area depending on availability of and access to land surrounding the Sokor Block. An application for a renewal of this licence has been lodged by CNMC and is currently being processed.

A gold royalty of 5% of gross revenue is payable to KSG, and an additional tribute payment of 3% of gross revenue is payable to KSEDC.

The project has obtained mining and environmental approvals from KSG. The Mining Scheme approval was obtained in January 2010 and is subject to initial mine production not exceeding 300,000tpa of mined ore. This condition will be relaxed on submission to government of a full feasibility study and mine plan directed at expanding the project to include treatment of the primary gold sulphide mineralisation using a carbon in pulp process. CNMC plans to continue exploration in parallel with gold production and aims to complete a feasibility study on an expanded project by the first half of 2012.

Environmental approvals for the project include submission of an Environmental Impact Assessment in January 2008 and a supplementary EIA report in March 2009 with approval received in June 2009. An Environmental Management Plan was submitted in February 2010 and an EMP - Additional Information report submitted in March 2010, with approval received in April 2010. The EIA and EMP include approval for both heap leach and pond (vat) leach processing of gold ore at the Sokor mine site.

Corporate income tax in Malaysia is 25%. CNMC submitted an application to the Malaysian Industrial Development Authority for Pioneer Tax Status which will entitle the project to 100% income tax exemption on statutory income for a period of five years, subject to certain conditions including the application for a Pioneer Certificate within 24 months from the date of such approval. CNMC advises that this application was approved by MIDA on 18 June 2010. However, as CMNM has not yet applied for the Pioneer Certificate and has not fulfilled the relevant conditions, tax exemption under the Pioneer Tax Status does not apply to CMNM at present.

BDA has not undertaken any due diligence review of the ownership or tenement status for the project. CNMC has appointed Malaysian legal advisors, Skrine, to review all project licences, permits and approvals which CNMC requires to carry on its mining operations. Skrine has reported that all relevant material licences, permits and approvals for CMNM's mining operation are in good standing.

# 5.3 Exploration and Mining History

The Ulu Sokor area has a long history of gold prospecting and small scale alluvial and hard rock mining. The earliest, significant exploration, including trenching and development of a number of shafts and adits, was carried out by Duff Development Company Limited ("Duff") in the early 1900s.

Since the 1960s, a number of companies have carried out exploration in the area of the old Duff workings, including geological mapping, soil and stream sediment sampling, and diamond core and RC drilling.

Eastern Mining and Metals Company ("EMM") carried out exploration including drilling at Ulu Sokor between 1966 and 1970. EMM completed a drilling programme of 104 holes totalling 2,963m and reported primary base metal mineralisation of 227,000t with gold grades ranging from 1.94 - 3.33g/t Au and oxide mineralisation of 156,000t with gold grades ranging from 2.85 - 5.34g/t Au.

Asia Mining Sdn. Bhd. ("AM") conducted mapping, soil sampling, rock chip sampling and drilling between 1989 and 1991. AM completed a drilling programme consisting of 55 holes totalling 2,705m. AM carried out metallurgical testwork and operated a heap leach facility during the period 1995-96. The operation processed around 40,000t of near-surface gossan ore from Manson's Lode area and produced approximately 3,200ozs of gold. Assuming a gold recovery of 80%, these reported figures indicate a calculated head grade of 3.1g/t Au. AM also delineated a gold resource in the Rixen's area totalling 4.1Mt at 1.2g/t Au at a cut-off grade of 0.5g/t Au.

TRA Mining (Malaysia) Sdn. Bhd. ("TRA") conducted geological mapping, rock chip and stream sediment sampling and RC drilling between 1997 and 1998. The RC drilling consisted of 33 holes totalling 2,630m and was carried out on the Manson's Lode and New Discovery areas.

CNMC obtained AM reports on the geology of the Rixen's area and the metallurgical testwork carried out on samples from Manson's Lode, New Discovery and Rixen's. CNMC was unable to obtain historical drilling data relating to exploration completed by EMM and TRA.

#### 5.4 Project Status

CNMC commenced exploration in 2007 in the known areas of mineralisation, including Manson's Lode, New Discovery, Ketubong and Rixen's. In these four areas, CNMC has completed geological mapping, soil sampling and Induced Polarisation ("IP") geophysical surveys over selected areas within the Sokor Block, excavated 27 surface trenches, and completed 190 diamond drill holes totalling 10,566m.

CNMC has defined gold resources in three deposits, Manson's Lode, New Discovery and Ketubong. Resources consist of shallow oxide gold mineralisation and deeper primary gold mineralisation associated with sulphide mineralisation, including pyrite and chalcopyrite. In the Rixen's area, CNMC has located potential for low grade, bulk mineable gold mineralisation within acid volcanic rocks; trenching and drilling in this area is at an early stage although CNMC has defined an oxide resource.

CNMC has commenced treating oxide gold ore using a vat leach process. Revenue from this operation, together with funds from proposed capital raisings will be used to continue exploration in the Rixen's area and elsewhere in the concession. At a later date CNMC plans to expand exploration to include the EL which surrounds the Sokor Block. CNMC plans to complete a detailed feasibility study during the first half of 2012, based on an expanded project which will include mining and processing of the primary sulphide ore.

CNMC commenced commissioning of a 60,000tpa vat leach facility and gold recovery plant in July 2010. The plant is designed to treat up to 10t per month of activated carbon. Initial production of oxide ore which will be sourced from the New Discovery and Manson's Lode deposits. Production will be expanded during 2011 to 84,000tpa by constructing a heap leach facility to treat ore from Rixen's deposit and by expanding the vat leach operation.

The first gold pour took place on 14 July 2010 with the recovery of 76ozs of gold and 17ozs of silver from an initial batch of 500t of ore. The ore was a mix of approximately 400t of New Discovery ore and 100t of Manson's Lode ore. The head grade was estimated from augur sampling of the ore after placement in the pond; the head grade was estimated to be 6.2g/t Au. Gold recovery through the plant was estimated at approximately 76%. Between July and December 2010 CNMC completed five gold pours for a production of 554ozs at an estimated gold recovery of 74% and is continuing ramp up of plant throughput.

CNMC plans to increase production to 84,000tpa during 2011 by commissioning a heap leach facility to treat oxide ore from Rixen's deposit. Rixen's deposit requires infill drilling of the resource to assist with the pit design and production scheduling. Manson's Lode deposit has defined Measured oxide resources which require additional metallurgical testing to establish whether the iron-rich, gold-bearing gossan ore (after massive sulphide) is amenable to vat leaching or whether it is more suitable to conventional heap leaching.

Mine site facilities presently include a crushing facility and run of mine ("ROM") stockpile, three leach vats, pregnant solution, barren solution and clean water ponds, eight carbon adsorption columns and a gold recovery plant which includes a furnace for smelting gold dore. Construction of a tailings storage facility with a capacity of 400,000t, sufficient for approximately 2.5 years of production, was 90% complete at the end of October 2010. CNMC is currently locating a new site in order to construct a larger TSF for future production expansion. CNMC has a fully equipped laboratory on site for assaying production samples for gold using atomic absorption mass spectrometry ("AAS"). There are also office and staff accommodation facilities. Site power is provided by diesel generators; water supply is sourced from a local river.

Mining equipment includes excavators and trucks which are leased by CNMC. Mining is relatively straightforward and consists of stripping the near surface oxide ore which rarely extends below a depth of 12m. Sulphide ore, which is not being treated at present, is left in place.

CNMC has entered into a contract with G4S plc ("G4S"), a British company, for site and gold transport security. CNMC also has a gold refining contract in place with the Perth Mint, Australia.

Mining and environmental approvals for the initial mining development have been received from the state government. The current mining approval limits production to a maximum of 300,000tpa; this condition will be relaxed on submission to the government of the feasibility study for the expanded oxide and primary ore project and approval of a detailed mine plan scheduled for completion in 2012.

#### 6.0 GEOLOGY AND MINERALISATION

# 6.1 Regional Geology

The Sokor Gold Project is located in the Central Belt of Peninsular Malaysia. Peninsular Malaysia is divided structurally into three main belts, the Eastern, Central and Western. The main tectonic trend of these belts is north-south to northwest-southeast. The Eastern and Western Belts are dominated by tin-bearing granites and associated tin and wolfram mineralisation.

The Central Belt consists of Permian to Triassic age metasediments including phyllite, slate, sandstone and limestone, and felsic to intermediate volcanic rocks. The metasediments and volcanic rocks are intruded by Late Triassic to Tertiary age, acid to intermediate stocks and dykes. The Central Belt extends from the Thailand border in the north to Johore in the south of the peninsula and contains base metal mineralisation including copper, lead, zinc, antimony and manganese and gold mineralisation.

The eastern (Lebir Fault) and western (Bentong-Raub Fault) boundaries of the Central Belt are major fault zones featuring dextral rotation and strike slippage of 5-10km. Known gold deposits in the Central Belt include Raub, Selinsing and Penjom, all located south of Ulu Sokor. The Sokor gold mineralisation is located towards the middle of the Central Belt and is associated with the intersection of two major north-south trending structures with northeast to northwest trending secondary structures.

# 6.2 Local Geology

The Ulu Sokor area is underlain by north-south trending meta-sediments including phyllite, slate, conglomerate, limestone and felsic to intermediate volcanic rocks (Figure 2). The meta-sediments are lower greenschist facies and appear to form an asymmetric anticline with shallow easterly dips in the eastern part of the concession and steeper westerly dips in the west. Locally the rocks are highly folded and display variable shallow to steep dips.

The concession area is divided into two parts by the north-south trending Ketubong-Rixen fault zone. The eastern part is dominated by calcareous and argillaceous sediments interbedded with carbonate rocks which dip eastwards at 10-40°. The western part of the concession is dominated by tuffaceous volcanics interbedded with minor calcareous phyllites and carbonate rocks. The acid to intermediate volcanic rocks consist of volcanic breccias and crystal tuffs. Silicification in the volcanic rocks is widespread.

#### Structure

Interpretation of Landsat imagery by CNMC suggests that the Ulu Sokor area lies between two major north-south trending faults approximately 2km apart. The western fault (Ketubong-Rixen fault) is located in the middle of the concession and can be traced on the Landsat image for more than 10km. Field evidence suggests these structures dip east at 40-60°. North-northeast and northwest trending secondary faults with variable dips ranging from 10-70° run between and in some cases cut the north-south structures. The intersection of north, north-northeast and northwest structures appear to control the mineralisation in the concession.

The Ketubong-Rixen fault strikes 10° west of north in the central and northern parts of the concession and changes to 10° east of north towards the southern part around New Discovery deposit. This fault and similar north-south trending structures appear to form brecciated shear zones with widths ranging from a few metres up to 35m. Minor fault splays are developed along the main fault zone. The main fault zone is intensely sheared and typically contains disseminated pyrite and occasional, small lenses of semi-massive sulphide, mainly pyrite with minor chalcopyrite and galena.

# **Intrusive Rocks**

Intrusive rocks in the concession are dominated by quartz porphyry dykes with widths of 2-50m that have been intruded predominantly along east to northeast trending faults and occasionally along north-northwest trending faults. Typically, the quartz porphyry dykes display pervasive silicification and/or sericitisation and kaolinisation. Dykes contain minor, disseminated pyrite mineralisation, particularly close to contact zones.

Narrow, north-south trending diorite porphyry dykes have been mapped west of the main north-south fault.

# 6.3 Deposit Geology and Mineralisation

Gold mineralisation at Ulu Sokor is both lithologically and structurally controlled. In the southern section of the concession, CNMC has defined three deposits, Manson's Lode, New Discovery and Ketubong. New Discovery and Ketubong are located on the same mineralised zone covering a strike length of over 1,000m. Manson's Lode to the east of New Discovery extends over a strike of around 400m (Figure 2).

A fourth area of gold mineralisation, the Rixen's deposit has been located approximately 3km north of Ketubong. Based on soil sampling results, gold mineralisation in this area extends over a strike length of more than 1,000m.

Gold mineralisation is generally hosted in acid to intermediate tuffaceous rocks and in carbonate-rich rocks. There is a strong link between mineralisation and fault structures and the degree of deformation along the structures. High grade gold mineralisation is typically associated with intense shearing and brecciation, veining and pervasive alteration including silicification and sericite-chlorite-pyrite alteration. Veining consists of massive quartz veins and stockwork veining and veinlets, with dominant quartz-pyrite and lesser quartz-carbonate. Brecciation, in some cases, appears to be post gold-base metal sulphide mineralisation. The gold deposits range in thickness from a few metres up to 35m. Mineralisation generally dips to the east at relatively shallow angles of 10-30° (Figures 3 and 4).

Field evidence suggests that quartz porphyry dykes could be the causative feeder intrusions for gold mineralisation, with intrusions occurring along fault zones. Disseminated pyrite and locally anomalous gold grades are present in some quartz porphyry dykes.

Gold is strongly associated with pyrite although base metal sulphides are present as minor minerals, including chalcopyrite, galena and sphalerite. Mineralogical examination of polished sections indicates that the gold is generally fine grained. This conclusion is supported by extremely consistent assay results between duplicate check samples.

Supergene enrichment of gold is widespread in the Sokor area with development of a typical surface mushroom-shaped dispersion pattern for the near-surface high grade gold values. This type of enrichment results in the width of the mineralisation at surface being generally wider than at depth. Typically the near-surface gold grade can be between two and five times higher than the grade at depth, with enrichment normally restricted to the top 2-10m. CNMC is aware of the supergene enrichment at Sokor and has taken appropriate measures to distinguish between higher grade surface trench intercepts and the deeper drill hole intercepts with respect to resource estimation.

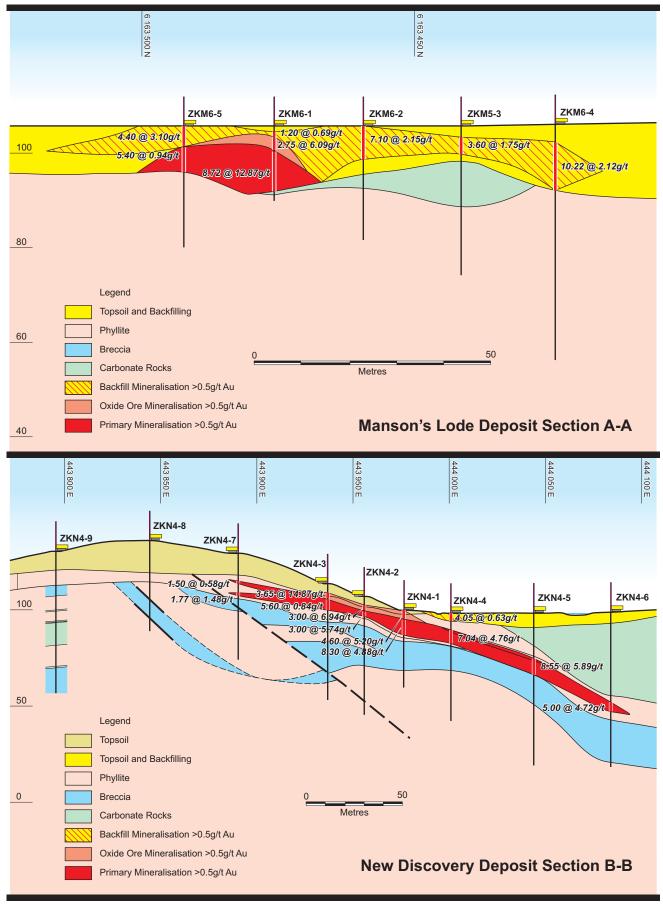
The depth to the base of oxidation varies between the four deposits. In Manson's Lode it ranges from 2m to 35m, averaging 13m and in New Discovery it ranges from 2m to 17m, averaging 7m. Oxidation in Ketubong generally penetrates to a depth of less than 3m whereas at Rixen's in the acid volcanic rocks, oxidation penetrates to a depth of between 20m and 60m.

BDA notes that a transition zone was not defined by CNMC although examination of the core by BDA indicates that such a zone does exist in parts of the deposits. Although definition of a transition zone does not impact on the evaluation of the oxide mineralisation, BDA recommends that drill holes are re-logged to distinguish transitional material from primary mineralisation; this may be important for future evaluation of the primary mineralisation for an expanded mining operation and CIL processing. Metallurgical recovery for transitional mineralisation could be significantly different to recovery for primary mineralisation and therefore selection of separate representative transitional and primary samples may be necessary for future metallurgical testwork.

# Manson's Lode Deposit

Manson's Lode consists of a surface gossan after sulphides partially replacing a silicified limestone unit which is intercalated with phyllitic sediments. The mineralised zone extends over a strike length of 450m, trending 060°, and is marked by old surface workings and a number of shallow shafts that have been excavated to depths of up to 30m. Manson's Lode has been defined by 120 drill holes totalling 4,904m.

The average width of mineralisation exposed in trenches in the old open cut area is 15m, varying from a few metres to 34m. The thickness of mineralisation is variable ranging from 5m to 20m; the dip of the mineralisation is shallow (10-15°) to the southeast. Trench mapping by CNMC suggests that the mineralisation is associated with a breccia zone. A quartz porphyry dyke which is exposed to the southeast of Manson's Lode may be a causative intrusion for the base metal-gold mineralisation. The dyke contains pyrite mineralisation as disseminations and veinlets, with rock chips returning gold grades of 0.5-0.7g/t Au. Most of the surface area has been disturbed by previous mining activity and hence the relationship between the different rock types is not clear.

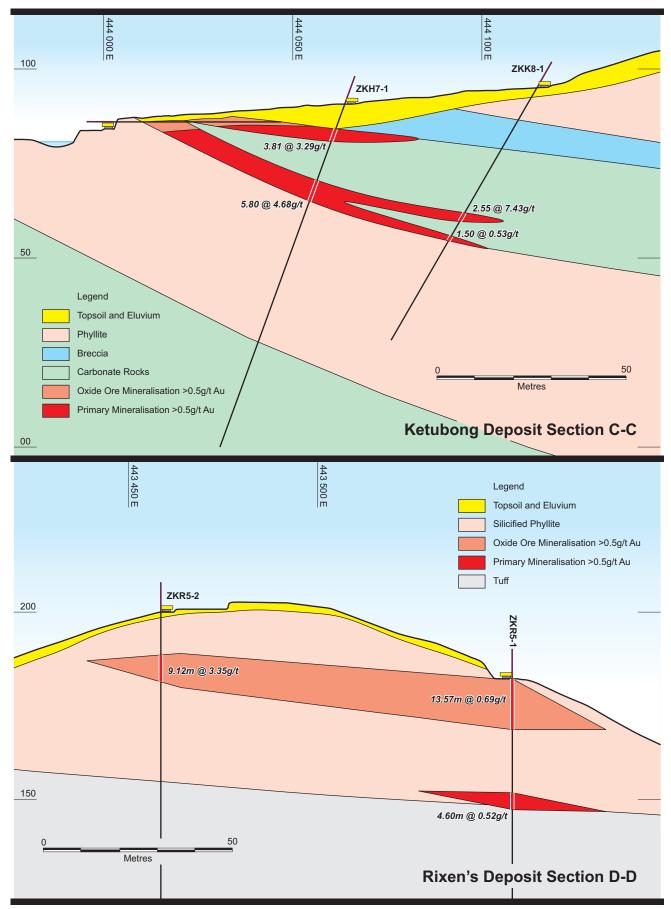


**Sokor Gold Project** 

**CNMC Goldmine Limited** 

Figure 3

**GEOLOGICAL SECTIONS** 



**Sokor Gold Project** 

**CNMC Goldmine Limited** 

Mineralisation consists of a mix of primary semi-massive to massive sulphide mineralisation partially and irregularly replacing a limestone unit, and the oxidised equivalent in the form of massive gossan. In addition there is backfill mineralisation which consists of material that was previously mined and discarded as too low grade to process at that time.

Sulphide mineralisation consists of pyrite, pyrrhotite, galena, sphalerite with minor chalcopyrite and arsenopyrite. The mineralisation has been strongly oxidised with the formation of massive gossan although sulphides are still present at surface in some places. Drill hole gold grades in the oxide gossan and primary mineralisation range from 1-8g/t Au, averaging around 4.3g/t Au. Backfill material generally averages around 1.8g/t Au. Silver is present but mineral species are not reported by CNMC. Silver grade averages around 92g/t Ag ranging up to 1,000g/t Ag for a one metre sample; silver is generally associated with elevated lead grades. Base metal grades average 2.2% Pb and 2.1% Zn with minor copper present.

# **New Discovery Deposit**

The New Discovery prospect is located approximately 500m west-northwest of Manson's Lode. Gold mineralisation is associated with the Ketubong-Rixen fault that runs through the central part of the concession area. The mineralisation has been defined by surface trenching over a strike length of 200m. Trench exposures indicate mineralised widths of 7-35m, trending 010° with a dip of around 30° to the east. In the north, the mineralised zone appears to be displaced to the west by a northwest trending fault. The deposit has been drilled down dip to a depth of 200m from surface and generally remains open at depth. The mineralisation continues north as the Ketubong prospect. The deposit has been defined by 51 drill holes totalling 3,238m.

Based on trench mapping, mineralisation consists of gold in association with weak stockwork and disseminated pyrite hosted in sheared and brecciated phyllite and in an adjacent limestone unit. The phyllite is generally strongly altered close to the fault zone with pervasive sericite-chlorite-epidote alteration, silicification and carbonate veining.

BDA noted the presence of carbonaceous phyllite developed along shear zones within the current New Discovery mining face; the presence of carbon could present a potential problem with preg-robbing during processing of the ore. Drill hole gold grades typically range from 1-9g/t Au, averaging around 3.6g/t Au; silver, lead and zinc grades are low. There is minor copper present in the form of chalcopyrite with the highest grade of 1,700ppm Cu but typically copper is in the range 50-400ppm. BDA notes that silver and base metal assays were only determined for the early drill holes; later drill holes were only assayed for gold.

# **Ketubong Deposit**

The Ketubong prospect is located approximately 600m to the northwest of Manson's Lode and immediately north of New Discovery. Ketubong represents the continuation northwards of the north-south trending and easterly dipping mineralisation present in New Discovery; mineralisation dips to the east at around 20-30°.

The deposit has been delineated by trenching and drilling over a strike length of 680m and by gold-in-soil and IP anomalies which are open to the north. Mineralisation is contained in highly folded phyllite and intercalated limestone over widths of 2-40m, based on trench exposures. Based on trench mapping, gold is associated with disseminated-stockwork quartz-sulphide mineralisation and more massive sulphide consisting predominantly of pyrite with minor, sporadic galena, chalcopyrite and sphalerite. Drilling indicates the mineralisation is closely associated with a limestone unit within phyllite.

Drilling demonstrates poor continuity between drill holes of both the grade and thickness of mineralisation and a general narrowing of the thickness at depth compared with trench exposures. The deposit has been defined by 10 drill holes totalling 1,743m; additional drilling is required to adequately test the potential of the primary mineralisation. The base of oxidation is at a shallow depth in Ketubong thus limiting the potential for a substantial oxide resource.

Drill hole gold grades typically range from 1-10g/t Au in the primary mineralisation, averaging around 2.6g/t Au. Silver and base metal grades are generally very low. Copper ranges up to 370ppm and zinc 120ppm.

# Rixen's Deposit

Rixen's deposit is located 3km north of Ketubong and approximately 5km from the process plant. Gold mineralisation is contained within acid volcanic rocks to the west of the Ketubong-Rixen fault. The deposit was defined initially by soil sampling and an IP survey which indicated an anomalous zone trending north-south with a strike length of 800m. Initial drilling has targeted a zone of pervasively silicified tuffs that extends over a strike of 500m.

To date a total of nine holes have been drilled for a total of 904m. A 15-30m thick tabular zone of gold mineralisation dipping 5-10° to the east has been intersected in four drill holes on two sections 100m apart. Gold

is associated with a stockwork zone of quartz-pyrite veins developed within silicified tuffs. Drill hole gold grades average around 1.9g/t Au and pyrite content is around 2-3%. The base of oxidation is deeper than at New Discovery and Ketubong, extending to a depth of 40-50m.

Rixen's deposit appears to have potential for a substantial low grade gold resource. The deposit requires infill drilling to confirm continuity of grade and thickness in the area already drilled and step-out drilling along strike and down dip to test for extensions to the mineralisation.

Gold, silver and base metal grades were determined by ALS Group by analysing the trench and diamond core samples from the trenching and drilling carried out by CNMC during the period 2007 to 2010.

# **6.4** Exploration Potential

There is considerable exploration potential within CMNM's concession area and in the surrounding exploration licence to locate additional gold resources. Potential exists for extensions to the known deposits and in areas within the concession where to date only limited reconnaissance exploration has taken place.

# **Known Deposits within Sokor Block**

Current drilling indicates there is potential for extensions to mineralisation down dip in the New Discovery deposit; also soil sampling indicates potential along strike to the south of the deposit. Soil and IP data suggest potential for a strike extension to the Ketubong deposit north to the Sungai Liang area.

Current drilling at the Rixen's deposit has focussed on the central part of the acid volcanic tuff unit covering a strike length of 500m. Based on mapping, soil sampling and IP results, the total prospective zone with potential for gold mineralisation within acid volcanic tuff extends over a strike length of around 2,000m; this includes an extension north of the current drilled area of around 800m and an extension south of 700m.

# Remainder of Sokor Block

The New Found prospect is 500m southwest of the New Discovery deposit. CNMC has drilled three drill holes into this prospect; drilling intersected altered phyllite and quartz porphyry intrusive rocks with gold intercepts of 1-4m with grades of 0.5-11g/t Au in the oxide zone. Massive sulphide float rock in the area returned 15.0g/t Au, indicating there may be potential for replacement massive sulphide mineralisation similar to the Manson's Lode deposit. The New Found prospect clearly warrants additional drilling.

There are also extensive areas in the concession that to date have only been subjected to reconnaissance mapping and rock chip sampling. Areas include south and east of Manson's Lode and east of the Ketubong-Rixen fault in the northern part of the concession. The area south of Manson's Lode is considered by CNMC to have potential for replacement style base metal-gold mineralisation similar to Manson's Lode deposit. The northern area east of the Ketubong-Rixen fault is considered to have potential for structurally controlled gold mineralisation.

CNMC is also presently evaluating alluvial gold mineralisation in the Sejana Lode area (Figure 2). To date CNMC has completed a pitting programme which indicates alluvial gold grades in excess of 1.0 gram per cubic metre. CNMC considers the alluvial mineralisation could be exploited and has the potential to increase gold production in the medium term.

# **Exploration Licence**

Exploration licence EL2/2006 covers an area of approximately 62.8km² surrounding the Sokor Block. CNMC has not completed any exploration in the licence area to date. The area covers a prospective section of the Central Belt. Known gold occurrences in the area include the presence of alluvial gold in a number of the rivers and hard rock gold mineralisation in the Sungai Tapis area to the northwest of the Sokor Block. The Sungai Tapis area is considered by CNMC to be prospective for gold mineralisation and to be possibly associated with a northern extension of the Ketubong-Rixen fault zone.

Structural interpretation of satellite imagery indicates a number of major north-south and northeast-southwest trending structures which are associated with gold mineralisation elsewhere in the Central Belt. The area surrounding a major intersection of these two sets of structures located to the southeast of the Sokor Block contains evidence from satellite imagery of three circular structures that could indicate buried intrusive bodies and also one exposed intrusion. This geological setting is regarded as prospective for gold and base metal mineralisation.

#### **Future Exploration Programme**

CNMC plans to increase the resource base of the project by initially drill testing potential extensions to the known deposits of New Discovery, Ketubong and Rixen's and by converting existing Inferred resources to Measured and Indicated resources. CNMC plans to drill an additional 10,000m of diamond drilling to achieve this objective. This programme is scheduled to commence during the first quarter of 2011. An additional programme of 2,500m of RC drilling is planned to focus exclusively on infilling the Rixen's deposit.

In conjunction with the resource drilling programme, CNMC plans to conduct additional metallurgical testwork programmes to assess the amenability of the Rixen's and Manson's Lode oxide resources to heap leaching and to test primary resources from all four deposits for carbon-in-leach processing. Testwork will also be carried out on samples of base metal sulphides to investigate the potential of using a flotation process to recover base metals and silver from the Manson's Lode deposit.

#### **Conclusions**

The geology and mineralisation controls at Sokor are reasonably well understood, with mineralisation being both structurally and lithologically controlled. The Manson's Lode and New Discovery deposits are well defined; Manson's Lode appears not to have potential for extensions whereas New Discovery remains open at depth and warrants additional drill testing. The Ketubong and Rixen's deposits have been more widely drilled and the geology is generally less-well defined. Both deposits require additional drilling to fully define resources. Rixen's deposit appears to have considerable potential for additional low grade gold resources both north and south of the presently defined resource.

The amount of drilling completed to date by CNMC of around 10,800m is quite modest relative to other projects at a similar stage of advanced exploration and early mine development. BDA considers this partly a result of CNMC relying exclusively on diamond drilling for its exploration and resource definition drilling, rather than the more rapid and cost effective method of RC drilling. BDA notes that CNMC is planning an additional 10,000m of diamond drilling and an additional programme of 2,500m of RC drilling to infill the Rixen's deposit. BDA recommends that the ongoing exploration programme planned by CNMC includes a higher proportion of RC drilling to boost the drill metreage capability and thereby enable a more rapid testing of prospective areas and expansion of drill-indicated resources within the concession.

To date CNMC has focussed its exploration on the known prospects within the Sokor Block and hence there are a number of areas within the concession that have been subjected to little or no exploration; the surrounding exploration licence also has not been subjected to any systematic investigation. These areas are prospective for gold and base metal mineralisation and CNMC plans to expand its exploration programme in the future to assess these areas and also in the surrounding exploration licence.

#### 7.0 GEOLOGICAL DATA

CNMC has completed geological mapping, soil sampling and IP geological surveys over a significant portion of the Sokor Block. The results of this exploration were used to locate surface trenches and drill holes in order to define gold resources within the concession. Surface trench and drill hole assay samples were used as the basis for the estimation of gold resources. BDA has inspected surface trenches and drill cores on site in June 2010 and reviewed drill logs and core photographs in August 2010. Drilling, logging, bulk density testing, sampling procedures and data quality aspects were discussed and reviewed with CNMC staff. BDA also visited the Sokor site during the early stages of exploration in October 2007 and again in April 2008 to review exploration procedures including drill hole logging, sampling and assaying.

# 7.1 Trenching and Drilling

The four deposits, Manson's Lode, New Discovery, Ketubong and Rixen's have been evaluated by a total of 27 surface trenches and a total of 10,791m of diamond core drilling. Trenches were excavated by a backhoe to a depth of 3-4m at spacing varying from 50m to 100m. Diamond drilling was completed on all four deposits with a mix of inclined and vertical drill holes with drill sections orientated normal to the strike of the mineralisation. The flattest drill hole angle was -60°. Drill holes were collared with PQ size core, reducing to HQ when competent rock was intersected below the highly weathered zone. Typically core size was reduced to NQ size at around 100m depth. Double tube core barrel equipment was utilised. The initial drilling programme in 2007 experienced low core recovery and consequently the first six holes drilled by CNMC were excluded from the resource estimation. Core recovery in subsequent programmes was satisfactory with most holes in excess of 90% core recovery.

Manson's Lode was defined by 120 drill holes totalling 4,904m and drilled on a 20m x 20m grid over a strike length of 450m. The three northernmost sections were drilled on a 20m x 25m grid with drill holes spaced at 25m along the sections. New Discovery was drilled by 51 holes totalling 3,238m over a strike length of 200m. Drill hole spacing varied from 20m x 20m to 20m x 40m. Drilling at Ketubong consists of 10 widely spaced drill holes totalling 1,743m over a strike length of 680m. Rixen's deposit has been drilled by nine holes totalling 904m over a strike length of 300m on a 100m x 100m drill grid.

# 7.2 Survey

CNMC has completed a topographic survey over a seven square kilometre area covering the four deposits; this local detailed survey has been tied into the Malaysian National Grid ("MNG") using a number of MNG survey control points. This survey work was carried out using electronic distance measurement ("EDM") equipment operated by qualified and experienced surveyors. All soil sampling, IP survey, trenches and drill hole collars have been located using EDM equipment. This survey provided adequate data to produce a digital terrain model ("DTM") for resource estimation and infrastructure layout.

All drill holes have been surveyed using down hole survey equipment. Holes were surveyed at 50m intervals down the hole; hole deviations are reported to be minimal.

#### 7.3 Logging

Trenches are geologically mapped to differentiate bedrock from eluvial/alluvial intervals prior to sampling. Drill hole cores are logged for lithology, weathering, alteration, structure, mineralisation and for geotechnical data including core recovery, RQD (rock quality designator) and fracture frequency measurements. All drill core is photographed using a digital camera. All potentially mineralised core is marked up for sampling. BDA notes that logging defined only two oxidation zones, oxide and primary. Drill core examined by BDA during the site visit indicated the presence of a partially oxidised transitional zone between oxide and primary; BDA recommends that future logging distinguishes transitional material from primary mineralisation.

# 7.4 Sampling and Sample Preparation

Trenches are sampled by continuous channel samples over lengths varying from 1-1.5m. All potentially mineralised core is diamond sawn, with half core dispatched for analysis and half retained in the core box as a permanent record. Core is stored on site close to the plant and administrative office. Sample lengths of drill core take into account geological boundaries but are a minimum length of 0.5m and a maximum of 1.5m.

Sample security is the responsibility of the site geologists who supervise the sampling of the core, the labelling and recording of the samples, and the transport and dispatch for sample preparation and analysis. Sample security procedures instigated by CNMC included secure storage of all drill core on site or at Tanah Merah office on completion of each drill hole. Sampling of core was supervised by the Chief or Senior geologists at all times. Core samples are placed in calico bags, labelled and dispatched by air freight from Kota Bharu to Perth

for sample preparation and analysis. BDA considers sample security procedures are satisfactory and meet normal industry standards.

Sample preparation is undertaken at ALS Group ("ALS") laboratory in Perth, Australia. Sample weights range from 1-3kg. Samples are dried, crushed to 6mm and the whole sample pulverized to 85% passing 75 microns. A pulp sample of 200 grams ("g") is split for assay and the pulp reject bagged and retained.

# 7.5 Assaying

The standard suite of analyses includes Au, Ag, Cu, Pb, and Zn. Gold analyses are by 30g fire assay with AAS finish, with a detection limit of 0.01g/t Au. Ag, Cu, Pb and Zn are analysed by four acid digest and ICP Atomic Emission Spectrometry ("ICPAES") using the ALS method ME-OG62.

# 7.6 Quality Assurance/Quality Control

QA/QC protocols consist of insertion of duplicates which were submitted at a rate of approximately one per batch of 20 samples and blanks inserted at a frequency of one in every 40 samples. A total of 258 core duplicates were prepared by cutting quarter core from the half core retained in the core boxes. Duplicate core samples showed acceptable results for values below 5g/t Au. Above 5g/t Au results showed a higher variance. BDA considers the variance in the higher assays is to be expected with quarter core samples.

Blanks were prepared by CNMC from material that was deemed to be barren from previous analysis. Results of blanks were generally acceptable however six blanks returned values in the range 1.4 to 2.2 g/t Au. On investigation these samples were deemed by CNMC to have been mistakenly labelled.

CNMC did not insert its own standards prior to dispatch of samples to ALS. A total of 294 samples of 10 different internal laboratory standards were routinely inserted by ALS. These standard samples returned acceptable results with no significant bias or long term drift of standard results. BDA recommends that CNMC inserts its own standards in future drilling programmes rather than relying on ALS internal laboratory standards for monitoring of accuracy and precision of the assays.

A total of 91 pulp samples prepared by ALS were sent to Standard and Reference Laboratories ("SRL") in Perth. Results of check assays by SRL using the same fire assay method as ALS gave an 8% lower mean grade compared with ALS and lower variance. This mean positive bias for ALS analyses was influenced mainly by differences between the two laboratories for results of eight samples greater than 12g/t Au. Sample variance of ALS samples was slightly higher for assays above 5g/t Au. Below 5g/t Au SRL assays gave comparable results. BDA recommends that CNMC carries out additional check assays particularly on samples greater than 10g/t Au.

Overall the QA/QC programme has confirmed the general reliability of the data and is considered to provide an appropriate base for resource and reserve estimation.

# 7.7 Bulk Density

Bulk density measurements have been made on selected core samples of approximately 0.2m in length using the water immersion method, weighing in air and water. Samples were dried before measurement. A total of 169 samples of oxide and primary mineralisation have been tested from the four deposits. Average bulk densities for unconsolidated backfill and alluvial mineralisation were determined using samples from 41 hand excavated, small pits with dimensions of  $0.5m \times 0.5m \times 0.5m$ . Samples were air dried before weighing. Bulk densities for the main mineralised lithologies are shown in Table 7.1.

Table 7.1

Dry Bulk Density Values

Domain - Rock Type	Bulk Density Value (t/m³)
Oxidised phyllite/gossan Manson's Lode, New Discovery and Ketubong (36 core samples)	2.20
Oxidised tuff in Rixen's deposit (30 core samples)	2.70
Backfill material in Manson's Lode deposit (25 pits)	1.85
Alluvial material in New Discovery deposit (16 pits)	1.85
Primary semi massive sulphide in Manson's Lode deposit (48 core samples)	3.82
Primary phyllite in New Discovery deposit (55 core samples)	2.95

# Conclusions

BDA has not undertaken an audit of the geological data as part of this review. From discussions with project staff, and review of geological logs and drill core, BDA considers that the geological investigations have been thorough and the drilling, logging, sampling and assaying procedures adopted are appropriate and in accordance with industry standards. BDA recommends that future geological logging of the oxidation profile includes identification of partially oxidised transitional rock.

QA/QC results indicate that the sampling and assaying data are generally reliable and without material bias, although QA/QC procedures could be improved by the submission of company standards and carrying out additional inter-laboratory checks particularly of higher grade samples. Bulk density determination procedures appear generally appropriate. Overall, in BDA's opinion, the geological database forms an appropriate and reasonable basis for resource and reserve estimation.

#### 8.0 RESOURCE AND RESERVE ESTIMATION

BDA has reviewed CNMC's resource and reserve estimates for each of the deposits. BDA reviewed the database and estimation methodology for each estimate and assessed the resources and reserves in terms of CNMC's forecast mine production, mine life and future growth potential.

CNMC reports its resources and reserves under the 1999 Chinese Code. BDA has made an assessment of CNMC's reported resources and reserves in terms of the comparable resource/reserve categories under the Australian JORC Code. The two codes are different. The JORC Code is a non-prescriptive code, in that it does not lay out specific limits for resource classification in terms of such things as drill hole spacing. Instead it emphasises the principles of transparency, materiality and the role of the Competent Person. The Chinese Code is a prescriptive code and does not include the role of the Competent Person. It uses a three component (EFG) system that considers the deposit economics (E), the level of mining feasibility studies that have been completed (F) and the level of geological confidence (G), using a numerical ranking.

An examination of the details of the Chinese Code suggests that in terms of broad categorisation, the levels of geological confidence ascribed to Measured and Indicated resources are quite similar in both codes. The ranges of drill hole spacing, thickness cut-offs and quality limitations that are enforced by the Chinese system would generally result in the same resource classification under the JORC Code.

The essential elements of the JORC and Chinese codes are presented in Appendices 1 and 2 respectively.

# 8.1 Standards and Definitions of the JORC Code

A mineral resource is defined in the Australasian Joint Ore Reserve Committee JORC Code as an identified insitu mineral occurrence from which valuable or useful minerals may be recovered. The Sokor gold resource figures represent the total tonnage of in-situ mineralisation delineated within the drilled areas and above the defined cut-off. Resources are classified as Measured, Indicated or Inferred according to the degree of confidence in the estimate. A Measured Resource is one which has been intersected and tested by drill holes or other sampling procedures at locations which are close enough to confirm continuity and where geoscientific data are reliably known. An Indicated Resource is one which has been sampled by drill holes or other sampling procedures at locations too widely spaced to ensure continuity, but close enough to give a reasonable indication of continuity and where geoscientific data are known with a reasonable level of reliability. An Inferred Resource is one where geoscientific evidence from drill holes or other sampling procedures is such that continuity cannot be predicted with confidence and where geoscientific data may not be known with a reasonable level of reliability.

An ore reserve is defined in the Australasian JORC Code as that part of a Measured or Indicated Resource which could be mined and from which valuable or useful minerals could be recovered economically under conditions reasonably assumed at the time of reporting. Reserve figures incorporate mining dilution and allow for mining losses, and are based on an appropriate level of mine planning, mine design and scheduling. CNMC's gold ore reserves represent those portions of the resource which can be economically mined under the defined parameters, and which are planned to be mined within a designed open pit. The reserves are included within the overall resource figures. Proved and Probable Reserves are based on Measured and Indicated Resources respectively. Under the Australasian JORC Code, Inferred Resources are deemed to be too poorly delineated to be transferred into a reserve category.

# 8.2 Mineral Resource Estimation

# **Geological Modelling**

The geological models and resource estimates for the Manson's Lode, New Discovery, Ketubong and Rixen's deposits are based on trench and drill hole data which was available at the end of May 2010. At that time, drilling was ongoing at Rixen's deposit and drill hole assay samples were outstanding for one hole in the Ketubong deposit.

The geology for each deposit has been interpreted on cross sections and in plan. Section spacing for Manson's Lode and New Discovery is 20m which aligns with the drill hole spacing; Ketubong and Rixen's deposits are more widely drilled with section spacing of 50m and 100m respectively. A cut-off grade of 0.5g/t Au was used to define mineralisation envelopes for each deposit.

Two oxidation domains, oxide and primary, were defined using geological logging of the degree of oxidation. Oxidised mineralisation is divided into three categories, backfill, alluvial and in-situ oxide based on geological logging. Backfill represents low grade material that was mined and discarded during previous mining operations of Manson's Lode deposit. Alluvial material is associated with the drainage channel of the Sungai Liang that cuts through the New Discovery deposit. All four deposits contain in-situ oxide mineralisation; the base of oxide

is defined by the first appearance of sulphide minerals based on visual examination of the core during geological logging.

# Manson's Lode

Manson's Lode is defined by eight surface trenches and 120 diamond drill holes totalling 4,904m over a strike length of 450m. Resource sections are spaced at 20m except for the three northernmost sections where spacing increases to 25m. Drill holes along sections are drilled at 20m spacing. Manson's Lode consists of a tabular dipping body of semi-massive to massive sulphide mineralisation associated with replacement of a limestone unit. Gold and base metal grades tend to be highly variable within the replacement body. Completely oxidised massive gossan mineralisation grades into primary mineralisation containing base metals, gold and silver; the dominant base metals are galena and sphalerite, with minor chalcopyrite. Overlying and adjacent to oxide mineralisation is backfill material which generally contains low grade mineralisation.

#### New Discovery

New Discovery deposit is defined by six surface trenches and 51 diamond drill holes totalling 3,238m over a strike length of 200m. Resource sections are spaced at 20m and drill holes along sections spaced at between 20m in the oxide mineralisation and 40m in the primary. New Discovery consists of shear and fault-related mineralisation which appears genetically linked to the base metal mineralisation at Manson's Lode; gold mineralisation is associated with low levels of base metals although occasionally minor replacement-style semi-massive base metal and gold mineralisation is present. The mineralisation attains a maximum width of 50m and dips to the east at around 10-30°. The grade and thickness of mineralisation between sections exhibits reasonable continuity.

#### Ketubong

The Ketubong deposit is defined by 12 surface trenches and 10 drill holes totalling 1,743m over a strike length of 680m. Section spacing varies from 40m to 150m with one to three drill holes per section. Continuity of the gold grade and thickness between sections is generally poor; the deposit requires additional drilling to demonstrate continuity of the mineralisation along strike and down dip.

# Rixen's

Rixen's deposit is currently defined by nine drill holes totalling 904m over a strike length of 300m. Section spacing is 100m with one to three holes per section. Initial drilling indicates a relatively simple tabular geometry with good continuity to the mineralisation, however additional drilling is required to test the continuity of grade and thickness between 100m spaced drill holes.

Gold mineralisation is hosted in acid volcanic rocks within an altered, silicified zone; mineralisation tends to be low grade in the order of 2g/t Au and occurs disseminated and in veinlets within the volcanics.

# Resource Methodology and Estimation Procedures

BDA has reviewed the June 2010 resource estimation processes and procedures and considers them reasonable, in accordance with industry standards and in compliance with the JORC Code.

The Sokor resource estimate represents the tonnage of in-situ mineralisation delineated within the drilled area and above the defined cut-off of 0.5g/t Au for each of the four deposits.

CNMC used a manual polygonal estimation method prescribed in the Chinese industry standards that are used in conjunction with the Chinese Code. The estimation methodology is similar to a conventional cross sectional estimation method as used in Australia and elsewhere around the world.

Resource parameters used by CNMC were as follows:

- a gold cut-off grade of 0.5g/t Au was used to define the mineralisation envelopes for the four deposits
- a minimum thickness of mineralisation was set at 1m and maximum internal waste at 2m
- a minimum block (polygon) grade was set at 1.0g/t Au
- top cuts were applied to statistically anomalous trench and drill hole samples and log probability plots were used to define the cut points; on average, the top 4% of the trench and drill hole samples were affected by the top cutting and the weighted average sample grades were reduced by 14% for trench samples and by 6% for drill hole samples

- mineralisation volumes were estimated by measuring the area of each mineralisation type on each section and
  multiplying by the section spacing; average section grades for each section were calculated by weighting the
  length of each drill intercept with its grade and sectional average grades were weighted by section volumes to
  obtain a weighted average grade for each mineralisation type in each deposit
- average bulk density values, as listed in Table 7.1, were applied to obtain resource tonnes for each deposit.

CNMC used the three component EFG system to categorise the resource into Measured, Indicated and Inferred. For the geological confidence component (G), categorisation took into account the drill hole spacing and the geological complexity of each deposit.

### **Mineral Resource Estimate**

The mineral resource estimate as determined for the June 2010 resource statement at a 0.5g/t Au cut-off is shown in Table 8.1. The gold mineral resources stated in this report are inclusive of gold ore reserves. The share of the gold mineral resources attributable to CNMC is 81%.

BDA has reviewed the resource estimation methodology and procedures and considers them generally reasonable and appropriate except for the following aspects:

- The polygonal estimation methodology used by CNMC is a method that was widely applied in the mining industry prior to computer-based resource estimation using geostatistical methods. It is a straightforward and relatively simplistic method that can deliver reasonable resource estimation results, however it can be vulnerable to over-estimation of the grade, particularly with gold deposits, due to the variability of gold grades normally found in such deposits. Average grades can be overly influenced by a single high grade and thick drill intercept which, in this method, can be assigned a larger volume of resource than is appropriate. CNMC has correctly attempted to reduce this effect by applying a top cut to the sample grades, but there remains the possibility that the estimation methodology may have over-estimated the gold grade particularly in Ketubong and Rixen's deposits where the number of drill holes used in the estimation is small and therefore each drill hole has more influence over the weighted average resource grade.
- The Rixen's deposit contains the largest proportion of oxide resources currently defined at Sokor. The deposit is presently drilled on a 100m x 100m grid and is categorised as having Indicated and Inferred resources. The Indicated resource has been categorised as such because of the apparent fairly simple and continuous distribution of mineralisation between 100m spaced holes. BDA considers this categorisation to be towards the limit of an Indicated category in a gold deposit to be reported under the JORC code and recommends that CNMC carries out infill drilling at Rixen's deposit to confirm continuity of the grade and thickness of the mineralisation.
- BDA recommends that CNMC considers using a computer-based estimation methodology for its next resource estimation update. This would entail creating a three dimensional block model of each deposit and applying geostatistical methods for the resource estimation. BDA believes that this would provide CNMC with a more robust global estimate of the gold resources at Sokor.

Table 8.1
Sokor Gold Mineral Resources 0.5g/t Au Cut-Off - June 2010

Deposit	Type	Category	Category	Tonnage	Gold Grade	Contained Au
		JORC Code	Chinese Code	kt	Au g/t	kozs
Manson's Lode	Backfill	Measured	121b	101	1.73	5.6
Wanson S Loue	Backfill	Inferred	333	29	1.86	1.7
	Oxide	Measured	121b	34	6.41	7.0
	Oxide	Inferred	333	39	4.57	5.7
	Primary	Measured	121b	108	3.67	12.8
	Primary	Inferred	333	122	4.07	16.0
	11111111	Subtotal	222	433	3.50	48.8
New Discovery	Alluvial	Measured	121b	22	1.10	0.8
Tien Discovery	Alluvial	Inferred	333	13	0.82	0.3
	Oxide	Measured	121b	37	8.74	10.5
	Oxide	Inferred	333	9	5.53	1.6
	Primary	Measured	121b	325	3.30	34.5
	Primary	Inferred	333	46	2.62	3.7
	1 11111111	Subtotal	222	452	3.55	51.4
Ketubong	Oxide	Inferred	333	7	2.21	0.6
rictuo ong	Primary	Indicated	122b	56	2.50	4.5
	Primary	Inferred	333	166	2.69	14.4
	1 11111111	Subtotal	222	229	2.64	19.5
Rixen's	Oxide	Indicated	122b	747	1.93	46.4
	Oxide	Inferred	333	283	1.84	16.7
	Primary	Indicated	122b	32	0.55	0.6
	Primary	Inferred	333	6	0.61	0.1
		Subtotal		1,068	1.85	63.8
All	Backfill	Meas/Indicated	121b/122b	101	1.73	5.6
		Inferred	333	29	1.86	1.7
All	Alluvial	Meas/Indicated	121b/122b	22	1.10	0.8
		Inferred	333	13	0.82	0.3
All	Oxide	Meas/Indicated	121b/122b	818	2.42	63.9
		Inferred	333	338	2.26	24.6
All	Bck/All/Ox	Meas/Indicated	121b/122b	941	2.32	70.3
	Bck/All/Ox	Inferred	333	380	2.18	26.6
All	Primary	Meas/Indicated	121b/122b	521	3.12	52.4
	Primary	Inferred	333	340	3.14	34.2
All	Total	Meas/Ind	121b/122b	1,462	2.61	122.7
All	Total	Inferred	333	720	2.63	60.8
All	Total	Meas/Ind/Inf	121b/122b/333	2,182	2.62	183.5

Note: cut off 0.5g/t Au; the total gold resources of 2,182kt includes gold ore reserves of 989kt

CNMC also reports base metal mineral resources in the Manson's Lode deposit estimated within the 0.5g/t Au cut-off mineralisation envelope which was used to define gold resources. Resources are estimated using a silver cut-off of 40g/t Ag or a 1% combined lead and zinc cut-off. The base metal mineral resources of lead and zinc and associated silver resources are shown in Table 8.2.

Table 8.2

Manson's Lode Deposit, Lead, Zinc and Silver Resources (0.5g/t Au Mineralisation Envelope) - June 2010

Type	Category	Tonnage	Grade	Grade	Grade	Lead	Zinc	Silver
	JORC Code	kt	% Pb	% Zn	Ag g/t	t	t	ozs
Backfill	Measured	115	1.0	0.2	43	1,200	200	161,000
Backfill	Inferred	26	1.3	0.3	41	300	100	35,000
Oxide	Measured	34	4.5	1.4	208	1,500	500	227,000
Oxide	Inferred	28	2.4	0.8	119	700	200	109,000
Primary	Measured	108	2.1	3.2	90	2,300	3,500	314,000
Primary	Inferred	113	2.8	3.9	114	3,200	4,400	414,000
All	Measured	258	1.7	1.6	85	5,000	4,200	701,000
All	Inferred	168	2.5	2.8	103	4,200	4,700	558,000
All	Meas/Inf	426	2.2	2.1	92	9,200	8,900	1,259,000

Note: cut off 40g/t Ag or 1% Pb+Zn within the 0.5g/t Au mineralisation envelope

### 8.3 Ore Reserve Estimation

Under the JORC Code, ore reserves represent that part of a Measured or Indicated mineral resource which is planned to be mined, incorporating mining dilution and allowing for mining losses, and on which a sufficient level of mine planning, mine design and scheduling have been carried out to demonstrate economic viability. Under the JORC Code, Inferred resources are deemed to be too poorly delineated to be transferred into a reserve category.

To date ore reserves have been estimated only for backfill, alluvial and oxide ore in Manson's Lode, New Discovery and Rixen's deposits. Optimised open pit designs for the three deposits are shown in Figures 5 and 6.

CNMC used the following reserve parameters:

- reserves for each deposit were defined within an optimised pit; the optimised pits include all Measured and Indicated oxide resources that have been defined to date
- mining dilution was set at 5% and mining recovery 100%
- the economic cut-off grade was defined as 0.5g/t Au, the same cut-off that defined the mineralisation envelope (equivalent to an in situ value of approximately US\$20/t at a gold price of US\$1,300/oz).

Based on the above parameters, in-pit ore reserves were defined as shown in Table 8.3. The share of the gold reserves attributable to CNMC is 81%.

Table 8.3 Sokor Gold Ore Reserves - June 2010

Deposit	Type	Category JORC Code	Tonnage kt	Gold Grade Au g/t	Contained Au kozs
Manson's Lode	Backfill	Proved	106	1.65	5.6
Manson's Lode	Oxide	Proved	36	6.11	7.0
Sub-Total	All	Proved	142	2.77	12.6
New Discovery	Alluvial	Proved	24	1.05	0.8
New Discovery	Oxide	Proved	39	8.32	10.5
Sub-Total	All	Subtotal	63	5.60	11.3
Rixen's	Oxide	Probable	785	1.84	46.4
Sub-Total	Oxide	Subtotal	785	1.84	46.4
Total	All	Proved	204	3.64	23.9
Total	All	Probable	785	1.84	46.4
Total	All	Prov/Prob	989	2.21	70.3

Note: cut off 0.5g/t Au; mining recovery 100%, mining dilution 5% at zero grade

## **8.4** Future Reserve Potential

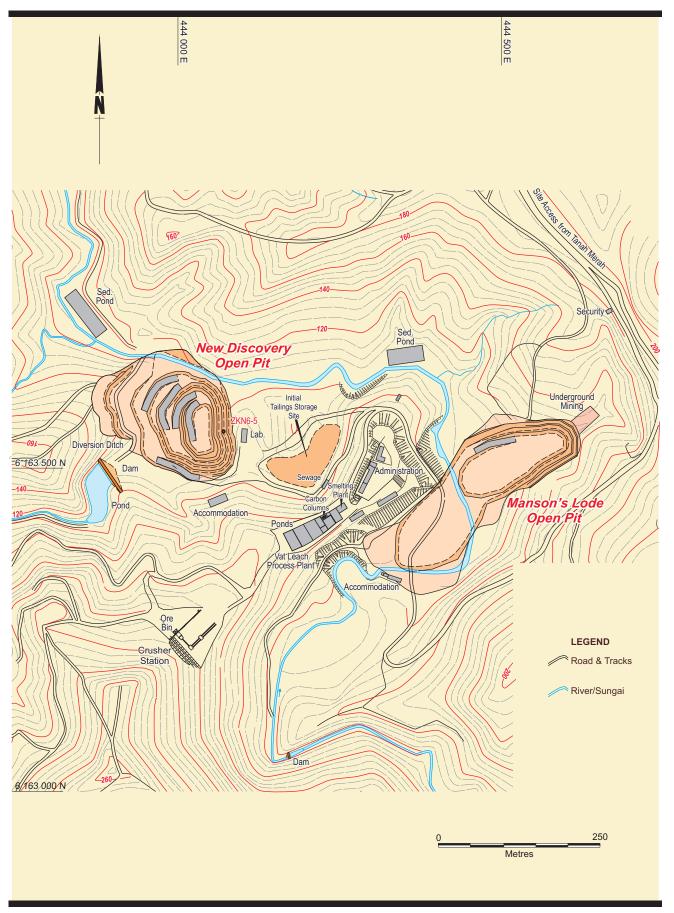
The designed open pits include 380kt of Inferred oxide resource, and approximately 500kt of Measured and Indicated primary resource. These resources have been included in CNMC's production schedule from 2012 onwards with the assumption that the Inferred oxide resources will be converted to ore reserves on completion of additional drilling and that the Measured and Indicated primary resources will be converted to ore reserves through the completion of successful metallurgical testwork that indicates that the material is suitable for processing in a CIL plant. BDA considers that it is a reasonable assumption that at least a major portion of these resources will be converted to ore reserves on completion of CNMC's planned work programmes.

There is also a reasonable expectation that additional resources will be defined within the Sokor Block and in the surrounding exploration licence, however this will require further systematic exploration and an increase in the amount of drilling that CNMC has completed to date.

## Conclusions

The mineral resource estimation and modelling has been professionally undertaken and the resource methodology and categorisations are considered generally appropriate for reporting under the JORC Code. Ore reserves based on Measured and Indicated mineral resources have been defined in four open pits; ore reserves are sufficient for two years of production at the planned production rates. CNMC will need to upgrade Inferred oxide resources with additional drilling and complete metallurgical testwork successfully on the primary resources to expand ore reserves and extend the mine life.

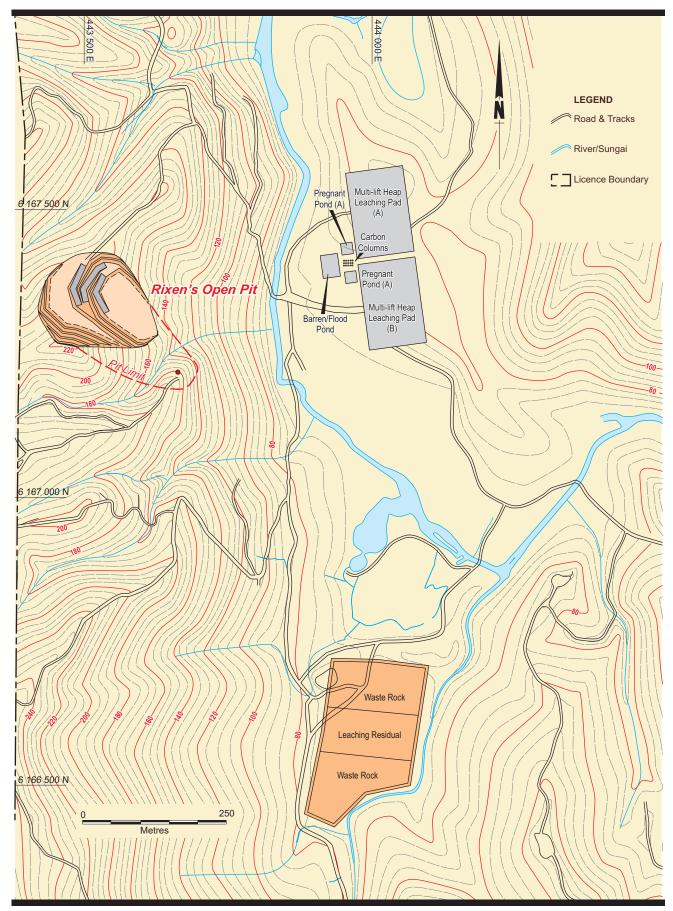
There is considerable potential remaining in the Sokor Block and surrounding exploration licence to locate additional gold resources, however this will require a higher rate of drilling than CNMC has completed in the past.



**Sokor Gold Project** 

**CNMC Goldmine Limited** 

MANSON'S LODE AND NEW DISCOVERY OPEN PITS AND VAT LEACH SITE PLAN



**Sokor Gold Project** 

**CNMC Goldmine Limited** 

RIXEN'S OPEN PIT AND HEAP LEACH SITE PLAN'

## 9.0 MINING

## 9.1 Overview

A mining study has been carried out by CSU from Changsha, China. The study assumes open pit mining of ore and waste based on conventional open pit mining methods with hydraulic excavators and dump trucks. The mine plan has extraction of ore from three separate pits, Manson's Lode, New Discovery and Rixen's. The planned Manson's Lode and New Discovery pits are located within a radius of approximately 1km from the treatment plant, while the planned Rixen's pit and associated heap leach pads are approximately 5km north of the treatment plant.

The deposits are hosted in intermediate to acid tuffaceous rocks and carbonate rocks. The ore zones at each of the deposits, which range in thickness from a few metres to over 35m, strike approximately north-south and dip gradually to the east at between  $10-20^{\circ}$ . Generally the rock strengths range from relatively weak in the oxidised zone to strong in the primary rock types in the hanging and footwall of the fault/shear zones that contain the majority of the mineralisation.

The project mine plan for the period 2011 to 2012 proposes an ore production rate increasing from 84,000tpa in 2011 up to 705,000tpa in 2012. Ore will be treated through the vat leach for New Manson's Lode and New Discovery deposits at a rate of approximately 60,000tpa, or stacked onto the heap leach pads at Rixen's at a maximum rate of approximately 670,000tpa. A mine schedule extending to 2014 has also been prepared.

The mining study defined an oxide ore reserve for the three pits totalling 989,000t at a grade of 2.21g/t Au. An optimised pit was outlined for each deposit including Measured primary resources as well as Inferred oxide resources totalling 1.88Mt at a grade of 2.6g/t Au.

### 9.2 Production Schedule

Mine planning in the study has been based on the following parameters and assumptions:

- Geotechnical no geotechnical report has been prepared for the pit slope assessment. CSU has assumed final pit slopes of 48-50° for the hangingwall of all of the orebodies and 26-42° for the footwall.
- *Mining Losses and Dilution* a nominal dilution allowance of 5% has been included in the estimates with mining recovery assumed to be 100%; given the planned bench height of 5-10m and the general width of the ore zone from 6-8m, BDA anticipates that mining dilution is likely to be higher.
- Mining Costs a unit cost of US\$2.65/t has been estimated for ore mining and US\$0.88/t for waste removal
  and a further US\$0.88/t for reclamation which includes waste being backfilled into the open pits. Plans
  involve the use of contract mining, drilling and blasting, using 20t trucks, loaded by 1.8m<sup>3</sup> hydraulic
  excavators, and supported by the normal ancillary equipment.
- *Processing Costs* a unit cost of US\$10/t has been estimated for vat leaching of ore from Manson's Lode and New Discovery deposits and US\$8/t for heap leaching of ore from Rixen's.
- *Ore Type* mine planning has incorporated both oxide ore and primary ore in the open pit optimisation study assuming a recovery of 80%. The recovery for oxide ore, based on testwork, is 70% for vat and heap leaching; recovery for primary ore is assumed to be 80% but testwork is required to confirm this figure.

CSU was commissioned by CNMC to prepare an Ore Reserve estimate. All optimisation parameters were supplied by CSU or derived in consultation with CNMC and were consistent with a nominal 300-600ktpa on-site mineral processing operation. Pits were optimised, and detailed staged and ultimate pit designs developed. Using the inventories from these detailed designs, a mining schedule was produced by CSU. Open-pit limit determination was done by DMINE software. The open-pit limit was determined using the cut off stripping ratio based on the parameters provided. CNMC used a gold price of US\$1,200 for the pit optimisation; a cut off grade of 0.5g/t Au was used to define ore reserves.

Open pit designs were based on a bench height of 5 or 10m (5 or 10m for ore mining and 10m for waste mining), with approximately 10-25 m wide berms. The batter angle was set at 50° in weathered rock and 65° in fresh rock. CSU indicated that the overall inter-ramp angle (the slope from crest to crest in areas with no ramp) averaged 23-30°, but this is likely to be in the footwall section of the pit with the hangingwall slope angle planned at 48-50°.

In Manson's Lode, the initial open pit is also planned to provide access for underground mining of over 40,000t of primary ore exposed in the pit wall but not within the open pit plan. Adit development and open stope mining is planned to be used for recovery of this ore. At completion of the small underground operation, the mined-out

area is to be backfilled with waste rock obtained in stripping operations to maintain stability. The remainder of the Manson's Lode pit will then be extracted.

All pits are planned to be backfilled after completion.

A summary of the contained resources and reserves within the three optimised pits of Manson's Lode, New Discovery and Rixen's are shown in Table 9.1. The resource tonnages include Measured primary resources and Inferred oxide resources. The Ore Reserves only include the oxide ore component of the pits and exclude primary material and Inferred oxide resources.

Table 9.1

Sokor Optimised Pits – Contained Resources and Ore Reserves

Deposit	Units	Contained Resources	Ore Reserve
Manson's Lode			
Ore Tonnage	kt	319	142
Grade - Au	g/t	4.1	2.8
Contained Au	kozs	41.5	12.7
New Discovery			
Ore Tonnage	kt	437	63
Grade - Au	g/t	3.6	5.6
Contained Au	kozs	50.2	11.3
Rixen's			
Ore Tonnage	kt	1,120	785
Grade - Au	g/t	1.8	1.8
Contained Au	kozs	63.7	46.4

Mining operations are planned to be conducted by contractors using 1.8m³ hydraulic excavators and 20t reardump trucks. The contractor will initially be a small scale contractor supervised by CNMC mining engineers, but for the higher rates of production CNMC intends to engage a Chinese mining company to undertake the mining operation. The fleet selection is considered relatively small but generally suitable for the proposed production activities, although the high rainfall and soft ground conditions may create some difficulties with the use of the rigid frame dump trucks; the use of all wheel drive articulated trucks may suit the ground conditions better than rigid trucks.

Most of the material will be drilled and blasted with 5m-10m high benches. CSU proposes a drill pattern of 4m x 3.5m with hole diameter of 115mm; the use of emulsion explosives is planned due to the likely presence of water. Grade control in the pit will be conducted using RC drills, with holes on an 8m x 10m pattern extending several benches below the current mining horizon with samples taken every 1.5m interval.

BDA has not viewed any specific geotechnical investigations and recommends that an assessment based on drill-hole logs and core analysis be used to identify possible structures and determine rock strengths. The footwall slope angles of the planned pits are reasonably conservative; the hangingwall pit slopes angles are between 45-50°; further review of the slope angles prior to mining is considered appropriate.

CNMC has identified that groundwater inflow to the pits is an important issue at Sokor. In-pit groundwater and run-off water is planned to be collected in sumps for pumping to rivers near the pit perimeters, using diesel powered pumps. Water will be pumped to sedimentation ponds and then reused or discharged after settling and neutralisation. Perimeter drains will be established at each pit to prevent the inflow of run-off water from rainfall. Low lying areas of the pit rim are planned to be bunded to protect against inflow in the event of high rainfall events.

The production schedule shown in Table 9.2 is based on the table presented in the CNMC report for the initial period from 2010 to 2012 based on ore reserves. The ore reserve is based on a cut off grade of 0.5g/t Au and the waste to ore stripping ratio over the period is approximately 1.6:1. Under the mine plan ore production commences at an initial rate of 84,000tpa in 2011 increasing to 705,000tpa in 2012. Total material movement ranges from 265,000tpa in 2011 to 1.74Mtpa in 2012 and 3.94Mtpa in 2014. BDA considers a more even rate of mining would provide a better basis for mine planning so that a potential mine contractor could size his equipment to carry out the operations at a reasonably steady state rather than regularly mobilising further equipment each year at a cost to the operation. Under the present terms of the mining approval, production is limited to 300,000tpa of ore, and further mining approvals will be required prior to 2012.

Table 9.2

Sokor Gold Operation - Projected Mining Production Schedule

Item	Unit	2010	2011	2012	Sub-total 2010-2012	2013	2014	Total 2010-2014
Ore Mined	kt	6.0	84.0	705.0	795.0	913.0	1,090.0	2,798.0
Waste Mined	kt	6.0	180.6	1,035.1	1,221.7	1,851.8	2,854.6	5,928.1
Total Material Mined	kt	12.0	264.6	1,740.1	2,016.7	2,764.8	3,944.6	8,726.1
Strip Ratio	w:o	1.05	2.2	1.5	1.5	2.0	2.6	2.1
Ore Treatment Destination	n							
Pond Leach	kt	6.0	22.0	40.0	68.0	43.0	0.0	111.0
Heap Leach	kt	0.0	62.0	665.0	727.0	640.0	600.0	1,967.0
CIL Leach	kt	0.0	0.0	0.0	0.0	230.0	490.0	720.0

CNMC has prepared an extension of production for two years (2013-2014) based on primary ore, Inferred resources and possible extensions at Rixen's pit. For the extended mine life an extra production of 2.0Mt of ore mine inventory has been assumed at an overall mining rate around 3.3Mtpa. Ore production is forecast at 600,000tpa of ore to the heap leach pads at Rixen's while an initial 230,000t of primary ore will be treated in the CIL plant increasing to 490,000t in 2014. The waste to ore stripping ratio over the extended production period is approximately 2.3:1.

## **Conclusions**

BDA considers that the mine planning schedules provide a general outline of the likely development but are preliminary in nature. The mining recovery and dilution estimates are considered somewhat optimistic but overall the ore reserve provides a reasonable basis for the production schedule.

In respect of the extended life of mine production schedule, the mining inventory using primary ore and Inferred resources provides a reasonable guide to the forecast production but is preliminary and several assumptions are made including conversion of Inferred resources to ore reserves, definition of additional resources at Rixen's and metallurgical recovery of the primary ore; these assumptions require better definition.

Geotechnical assessment has not been carried out in any detail but the footwall slope angles of the planned pits are reasonably conservative; the hangingwall pit slope angles are between 45-50°, further review of the slope angles prior to mining is considered justified.

There is always some mining risk in high rainfall areas but CNMC plans to provide drainage channels around the open pits to minimise the effects to the operation. The mining equipment is considered generally appropriate to the conditions and the proposed scale of operations, although an all wheel drive truck fleet may be better suited to the conditions than the planned rigid rear drive trucks.

### 10.0 PROCESSING

### 10.1 General

CNMC engaged Changchun Gold Research Institute to carry out process testwork in 2008 and subsequently to design a process for recovery of gold and silver from the Sokor ores. A vat leaching plant was constructed on site in early 2010 and operations commenced in July 2010. Approximately 6,000t of ore had been processed by the end of December 2010.

## 10.2 Metallurgical Testwork

In 1991 testwork carried out by Asia Mining Sdn. Bhd. included bottle roll tests carried out at Ammtec in Perth on oxide samples from Rixen's; gold recoveries ranging from 54-86% were obtained on leach feed crushed to -3mm. When the material was crushed to finer than 180 microns ("µm"), gold recoveries increased to 97-99%.

In 1991 AM carried out column leaching testwork on ten samples weighing between 1,000 and 1,350kg. The samples were obtained from the Liang, Rixen's, New Discovery, Manson's Lode and New Found areas. Table 10.1 summarises sample lithologies and assays, and column leaching results.

Table 10.1
Summary Results- Asia Mining Testwork 1991

Col. No	Area	Lithology	Head Assay (g/t)		Recovery (%)		Reagent Usage - kg/t		Percolation
			Au	Ag	Au	Ag	NaCN	Lime	
1	Liang	Gossan with secondary quartz	19.9	7.28	94.8	53.7	2.54	6.43	Good
2	Liang	Gossan.	2.73	176	87.1	7.1	1.22	2.33	Good
3	New Disc.	Gossanous bands	11.6	3.17	93.8	58.9	2.68	4.83	Good
4	Rixen's	Clay-silica with vein quartz	0.65	1.76	87.8	20.0	0.83	2.07	Good
5	Rixen's	Clay-silica with vein quartz	2.74	3.05	83.8	38.9	0.89	2.04	Good
7	Rixen's	Silicified breccias	1.68	1.86	64.1	32.2	1.07	2.05	Good
8	New Found	Metasediment at dyke contact	8.80	2.33	71.2	51.2	1.71	3.86	Good
9	Manson's	Oxide/sulphide transition	3.86	94.6	60.1	23.7	3.48	5.78	Good
10	Liang	Gossan with quartz	6.59	144	95.2	9.4	2.76	5.24	Good

Note: the previously named Liang area is now included in the New Discovery deposit

In 2008 CNMC contracted CGRI to carry out a testwork programme on two samples representing oxidised and primary mineralisation from several locations on the site. The oxide sample contained 400kg of material from Manson's Lode and New Discovery areas; the primary sample contained 400kg of primary and partial primary ore material from Manson's Lode and primary material from Ketubong. Unfortunately, the two samples were combined by CGRI and testing took place on one mixed oxide and primary sample.

The single sample tested assayed 3.61g/t Au, 45.5g/t Ag, 0.055% Cu, 1.03% Pb, 1.38% Zn, 17.2% Fe, 0.27% As and 3.85% S. The gangue minerals present were mainly quartz, feldspar, sericite, chlorite, calcite and kaolin.

A detailed mineralogical examination concluded that the gold was either included in sulphides, oxidised sulphides or in the gangue minerals, between grains of these minerals, and in fractures. Gold grains appeared to be pre-dominantly finer than 75 microns (" $\mu$ m") and about 30% finer than 10 $\mu$ m.

A gravity concentration test using an unspecified method at a particle size of 80% finer than (" $p_{80}$ ") 74 $\mu$ m produced 6% gold recovery. A 24 hour cyanide leaching test at a  $p_{80}$  of 74 $\mu$ m produced 93-95% Au extraction, depending on cyanide addition rate. Column tests were carried out testing variables including crushed ore size (30mm and 50mm top size), cyanide addition rate (600-1,000g/t of sodium cyanide ("NaCN"), and 7-35 day leaching time. A test was carried out at optimised conditions of 30mm top size, pH11, 800g/t NaCN and 30 days leaching time, achieving extraction of 80.6% of the gold and 11.6% of the silver.

CNMC plans to carry out further metallurgical testwork in the following areas:

- heap leaching of Rixen's oxide ore
- gravity gold recovery and heap leaching of Manson's Lode back fill ore
- mineralogical analysis on polymetallic Manson's Lode ore for selection of a process route
- mineralogical and leaching testwork on primary ore from New Discovery and Ketubong.

## 10.3 Plant Design

CNMC, on the advice of CGRI, decided to opt for a vat leaching process rather than a heap leach. This decision was made because of the lack of suitable locations on the mine site for establishment of a leaching pad and due to the high rainfall on the site.

The plant comprises the following equipment:

- a 50 tonnes per hour ("tph") crushing plant which includes a jaw crusher, a secondary impact crusher and a 10mm vibrating screen to split the secondary crusher product into plus and minus 10mm material
- three concrete leaching vats each with a capacity of 1,500t of ore
- pregnant, barren and raw water ponds
- eight activated carbon columns set up in two trains of four columns
- a gold room comprising an acid wash tank and an elution column each with a capacity of 1t of carbon
- a 1,000kg carbon/day diesel-fired carbon regeneration furnace
- a pressurised electrowinning cell.

Crushed ore is trucked about 150m to the leaching vats and loaded into the vats using excavators. Barren solution is pumped into the vat to saturate the ore and allow it to soak. The pregnant solution is then drained from the vat into the pregnant solution pond. Pregnant solution is pumped through the carbon columns, an estimated 97% of the contained gold is captured on the carbon and the solution discharging from the columns is recirculated to the barren pond, from where it is pumped back to the vat.

Carbon is transferred to the gold room for acid washing, elution and regeneration prior to recirculation to the adsorption columns. Eluate from the elution stage is circulated through an electrowinning process to produce a gold sludge which is dried and smelted to produce gold dore.

## 10.4 Further Process Development

CNMC has indicated it has developed costs for expanding capacity of the existing plant, for construction of a multi-lift heap leaching system and for construction of a carbon-in-leach plant with an initial capacity of 500 tonnes per day. BDA has not been supplied with any details of the design of these plants. Given that testwork remains to be carried out on primary ore samples from deposits on which CIL processing is proposed, the projected gold recovery and operating costs should be considered conceptual. The projected 80% gold recovery for primary ore requires confirmation from testwork on representative samples.

BDA has some concerns regarding the practicality of operating a heap leach process in a high rainfall environment such as at Sokor. Monsoon rainfall is likely to cause high inflows of water to the heap leach system, resulting in a requirement for detoxification and discharge of large volumes of excess water.

## 10.5 Operating History

Plant operations commenced in July 2010. Initially, ore was crushed without screening of the secondary crusher product and then loaded into Vat 1. However, the initial fill of the vat with solution indicated that percolation through the ore was poor and a decision was taken to screen the crushed ore into plus and minus 10mm fractions.

A total of 500t of the coarse fraction was loaded into Vat 3 and the fines were stockpiled for later processing. The ore loaded into the vat was augered on a 5m x 4m grid to obtain a feed sample and then leached for 10 days. Loaded carbon was acid washed and eluted and the eluate solution circulated through the electrowinning cell. The first gold production comprised a bar weighing 2.975kg and containing 79.8% Au and 17% Ag, equivalent to a gold content of 76.3ozs. Based on an assayed vat feed of 500t assaying 6.1g/t Au, gold recovery was equal to 77.6%. BDA notes that the ore tonnage estimate was based on truck counts and an estimated truck factor; BDA considers that in the longer term it would be advisable to set up a more accurate system for metal accounting.

At the time of BDA's site visit in July 2010, excavators were transferring the ore initially loaded into Vat 1 into Vat 2. Repairs to leaks were also being carried out on Vat 2.

CNMC indicated that it expected leach time to be 15 days on full vats and the vat cycle time to be 21 days. On this basis, each vat could be put through approximately 17 cycles per year, the resulting vat capacity therefore being 20,000tpa. At this annual vat capacity the site has the capacity to process about 60,000tpa. CNMC is constructing shelters which will be placed over the vats and the solution ponds to prevent rain from diluting the pregnant solution and potentially causing the vats to overtop.

Performance to date is summarised in Table 10.2.

Table 10.2
CNMC Plant Production Summary- July-December 2010

Gold Pour No	Date	Ore Tonnage Au Recovered Head Grade t ozs g/t			Au Recovery %
1	Jul 2010	500	76	6.2	76
2	Aug 2010	800	106	5.4	76
3	Sep 2010	1,000	58	2.4	75
4	Nov 2010	2,000	165	3.5	73
5	Dec 2010	1,600	149	3.9	74

Table 10.2 indicates that the ore treatment rate had reached around 1,800 tonnes per month by December 2010, equivalent to around 35% of the design capacity.

## **Conclusions**

The testwork carried out on Sokor ore has indicated that good gold dissolution can be obtained on oxide samples. On primary samples, gold dissolution is generally lower. CNMC has opted to construct a vat leaching plant. This plant has processed approximately 6,000t of ore in the period from July to December 2010. CNMC plans to expand the capacity of this plant and to construct a heap leach pad for additional oxide ore processing capacity and a CIL plant to process primary ores. BDA has some concerns regarding the operation of a heap leach in a high rainfall environment such as Sokor.

### 11.0 INFRASTRUCTURE

### 11.1 Site Access and Climate

The project area lies approximately 75km south of the city of Kota Bharu, in the state of Kelantan, Malaysia and is within about 35km of the Thai border to the northwest. Access from Kota Bharu is via the main highway to the town of Tanah Merah, about 40km to the south, and thence via local sealed roads for around 32km to Kampong Bukit Pauh village, where an 18km four-wheel-drive lightly trafficked logging track provides access to the site through hilly terrain, with one significant fording of a stream.

Kota Bharu is serviced by regular commercial flights from Kuala Lumpur.

Kelantan has a tropical monsoonal climate, the wettest months being November to January. The states's average rainfall is in the range 2,032-2,540mm per annum. During BDA's visit to the site, project personnel indicated that annual rainfall on the site could be up to 4,000mm per annum.

## 11.2 Power and Water Supply

Power to the operation is provided by three on-site diesel generators. Two generators of 400kW and 240kW capacity provide the bulk of the capacity, with a 160kW unit available as a stand-by. Small portable generators provide power to living quarters.

The project site is in an area of high, consistent rainfall. Water is sourced from local streams for use in mining and processing. Potable water is trucked to the site.

### 11.3 Mine Site Facilities

CNMC has constructed offices, accommodation camp, assay laboratory and a mobile equipment maintenance facility on the site. BDA considers that these facilities are adequate for a small-scale operation.

Communications are provided via a satellite phone system. Telephone, fax and data transmission facilities are provided.

#### **Conclusions**

The infrastructure provided is generally adequate and appropriate to support an operation of the style planned for Sokor.

### 12.0 ENVIRONMENTAL AND COMMUNITY ISSUES

BDA has reviewed those environmental aspects and social/community issues which are considered a material part of the project and which may have implications for project feasibility, costs and timing. The issues discussed below cover the main environmental and social risk areas identified from BDA's review of the project's Environmental Impact Assessment 2008, 2009 and Environmental Management Plan 2010.

## 12.1 Environmental Issues

### **Environmental Impact Assessment**

Environmental approvals for the project include submission of an Environmental Impact Assessment in January 2008 and a supplementary EIA report in March 2009 with approval received in June 2009. An Environmental Management Plan was submitted in February 2010 and an EMP – Additional Information report in March 2010, with approval received in April 2010. The EIA and EMP cover both heap leach and pond (vat) leach processing of gold ore at the Sokor mine site.

The project mining and environmental approvals are granted by the Kelantan State Department of Environment ("DOE"). The EIA approval was received in June 2009 with approval conditions stipulated, whilst the EMP approval was received in April 2010. The Mining Scheme approval was obtained in January 2010 and is subject to initial mine production not exceeding 300,000tpa of mined ore. This condition will be relaxed on submission to government of a full feasibility study and mine plan directed at expanding the project to include treatment of the primary gold sulphide mineralisation using a carbon in pulp process. CNMC plans to continue exploration in parallel with gold production and aims to complete a feasibility study on an expanded project by the first half of 2012.

As part of the environmental investigations undertaken to date, potential project impacts to physical and biological resources have been assessed to identify key environmental risks that may arise from the construction, operation and eventual mine closure of the Sokor gold project. Formal assessment, documentation and communication of potential project-related impacts, including the anticipated scope, magnitude, extent and duration, have been completed in conformance with the Kelantan State permitting process, including the DOE requirements, and requirements under the Environmental Quality Act 1974. The information supplied under the Supplementary EIA was in response to further information requests from the DOE and the Kelantan State Minerals and Geoscience Department.

The EIA reports were prepared by Puncak Moriah Engineering Sdn. Bhd., whilst the EMP document was prepared by EQM Ventures Sdn. Bhd. The Sokor Mining Schemes Report was prepared by CMNM Mining Consultant Engineer, Ir. Chue Hang Cheong.

## **Climatic Setting**

The nearest meteorological station to the site is the Kuala Krai Station which is approximately 40km east of the project site and at a lower elevation. The highest 24-hour mean temperature of 28.0°C was recorded in May and the lowest was 24.6°C recorded in December. The highest mean maximum is 35.1°C recorded in April and the lowest is 28.5°C recorded in December, whilst the highest mean minimum is 24.1°C recorded in May and the lowest is 20.7°C in February.

Kelantan has a tropical monsoonal climate, the wettest months occurring from November to January. The States's average annual rainfall is in the range 2,032 - 2,540mm. The above station's recorded highest annual recorded rainfall is 2,752mm and the lowest is 1,543mm. During BDA's visit to the site, project personnel indicated that annual rainfall on the site could be up to 4,000mm per annum.

BDA understands that the Sokor gold project will operate throughout the year except for scheduled maintenance work and certain public holidays.

### **Environmental Protection and Mitigation Measures**

CNMC has identified the key potential environmental impacts arising from the project's operations and their associated mitigation measures which are being implemented. These potential impacts and CNMC mitigation measures include:

 Site clearing impacting on downstream water quality - mitigation measures include the use of silt traps and runoff barriers, retention of vegetation, vegetation removal to follow natural contours to maximise effects of silt traps.

- Soil erosion and dust emissions resulting from earthmoving activities mitigation measures include revegetation to control runoff and soil loss, water spraying of mine roads and trafficked areas to suppress dust emissions, and provision of personal protection equipment to provide protection from dust and noise.
- Biomass waste and other waste disposal causing air pollution, fire hazard, unhealthy environment mitigation measures include no burning of biomass waste allowed on site, spoils and waste materials to be buried on-site in a designated 'fill' area, properly designed spoil piles surrounded by soil containment berms, and biodegradable waste to be left in-situ to decompose naturally.
- Wastewater generation and disposal impacting on water quality mitigation measures include provision of suitable sanitation facilities and potable water supply, solid waste to be recycled, and composted or disposed in secure areas designed in accordance with Department of Environment of Malaysia guidelines.
- Chemicals and hazardous material use impacting on water quality mitigation measures include prevention of leakage from tailings vats by installing water proofing materials to inhibit seepage, conducting regular maintenance of vats, engagement of Kualiti Alam (a Federal Govt licensed toxic waste collector) to handle all acids and hazard chemicals resulting from the operations, and provision of proper safe and secure storage facilities located away from incompatible substances that may generate heat, fire, gas or explosion.
- Traffic associated with the project impacting on air quality, noise, and road safety mitigation measures
  include provision of sufficient width to access roads, limiting speed of vehicles, restricting entry to active
  mining areas to project vehicles only.
- Mine closure impacting on water quality, employment opportunities, development opportunities, loss of environmental values mitigation measures include developing an appropriate Mine Closure and Rehabilitation Plan which includes appropriate systems for handling site storm water runoff, compacting and sealing potentially acid-generating waste rock, closure and covering tailings dams, site re-vegetation, employee training and multi-skilled experience which is transferable to other mining operations or other sectors of employment.

### Air Quality and Noise

Background air quality and noise were measured in and around the Sokor project area in 2007 as part of baseline monitoring for environmental assessment purposes. In general, ambient air quality and noise levels in areas sampled in the project area are within Government of Malaysian ambient standards.

## **Surface Hydrology**

Based on topographical information, there are numerous streams which pass through the Sokor mine site area from east to west, flowing through Sg. Tapis, Sg. Amang, Sg. Sejana, Sg. Liang and Sg. Ketabong, which eventually discharge into the Sg. Pergau.

Surface water baseline evaluations have been conducted in the Sokor project area as part of the environmental assessment. Baseline water quality analysis shows that the water quality in the project area is generally good and the parameter levels comply with the limits of Class III of the Interim National River Water Quality Standard for Malaysia and complying with Standard B of the Malaysian Environmental Quality (Sewage & Industrial Effluents) Regulations, 1979.

### **Water Management**

Given the project area's known high rainfall, water management is a significant management issue for the project so as to minimise any potential downstream impacts.

The mine and processing plant are to be operated as a closed-loop circuit where no water from the site operations will be discharged to nearby surface waters. All process water from the plant area is to be channelled to the proposed tailings storage facility while any excess water from the TSF is recycled to the plant's processing circuits.

The TSF is designed to operate with a minimum freeboard of 1.5m and will be surrounded by berms. The design capacity is at least twice the actual design capacity of all water from the mineral processing circuit and has also been designed to accommodate the recorded maximum rainfall event.

The berms are designed to prevent overflow from discharging from the TSF and will also preclude rainfall runoff from entering the TSF. Any stormwater and water collected from the mine pits will be channelled to a sedimentation pond (i.e. environmental control pond), which is designed to provide a retention time of 48 hours. Discharge from the sedimentation control pond will be via a spillway.

The mine is to be developed with minimum disturbance to streams and creeks in the area. Where this is unavoidable, silt traps and sediment control practices are to be used to prevent any inflow of sediment to surface water. Surface runoff from the workshop area and other vehicle service areas are to be channelled to an oil/water separator device prior to the water being discharged.

Discharge of waste water from the sewerage system, domestic waste water and rainwater runoff from on-site facilities such as workshops will be controlled so as not to impact on surrounding surface waters.

## **Tailings Management**

Originally it was proposed that the project would initially use alluvial and heap leach methods to develop the mine. However at present, crushed ore is currently processed using the vat leaching process rather than a heap leach. CNMC has indicated its intention to expand the capacity of the existing plant, with construction of a multi-lift heap leaching system and development of a carbon-in-leach plant. BDA has not been supplied with any details of the design of these plants, any expansion details on proposed plant process ponds, nor any site water balance data. BDA believes it is prudent that any heap leach system, besides provisioning for process ponds (barren and pregnant solution ponds), provides a stormwater (safety) pond with sufficient capacity to accommodate the local maximum rainfall event. Such a pond will need to accommodate runoff from the entire process plant area, including the process ponds and heap leach area. A cyanide detoxification system will likely be necessary to handle increased rainfall on the heap leach area during the monsoon period and to provide for decommissioning of the heap leach structures and make safe the process solutions once the heap leach system is closed. The EMP contains limited details on three possible cyanide detoxification methods, however, the information provided is considered preliminary, as no particular detoxification method has yet been selected.

The EIA Supplementary report contains design details and environmental protection measures to minimise the potential for water pollution. It is proposed that no solutions are to be discharged from the stormwater (safety) pond and that the cyanide content of water in the pond will be constantly monitored to ensure it remains below 0.1mg/L. All ponds, channels and impounding bunds are planned to be constructed with the required minimum freeboard and be HDPE-lined for protection against erosion and potential groundwater contamination.

The small TSF will store tailings from the current vat leaching system. It is proposed that future tailings will be placed in existing mine pits and that as additional mined-out pits become available, they will also be utilised to contain tailings. If the project is expanded utilising heap leaching, then tailings storage will not be required if the vat leach method is discontinued.

## **Environmental Monitoring**

The approved Environmental Management Plan contains details concerning the environmental monitoring requirements stipulated under the Government approval. They include requirements for the monitoring and reporting of air quality, noise and water quality.

An Environmental Audit process is set out in the Environmental Management Plan.

## Rehabilitation

It is proposed that where possible, any disturbed areas will be progressively rehabilitated. However there are some areas such as the process plant areas which cannot be rehabilitated until such time as the mine is closed and the plant is decommissioned.

An Erosion and Sediment Control Plan is set out in the Environmental Management Plan, together with other specific pollution control, and occupational health and safety plans.

### 12.2 Social Issues

The socioeconomic impact assessment was undertaken by verbally interviewing groups of local persons from the two communities within 25km of the project. The activities in which the respondents are generally involved are rubber tapping, farming and fishing.

There is a possibility that the Sokor project may encroach into fishing areas, which may impact on local revenue and livelihoods for the members of the local communities who use the area. Consequently, local dissatisfaction with the project may arise if access to fish resources is restricted.

### **Surrounding Land Use**

The Sokor gold project site is located within a secondary forest area of Mukim Sokor, near the Sokor Taku Forest Reserve. The land use within a 3km to 10km radius of the project site is forest. The nearest housing and agricultural land area adjacent to the Sokor project is RPT KESEDAR Peralla 2, which is located to the northeast and approximately 18km from the site. The nearest existing facilities are Klinik Desa Peralla, Sekolah

Menengah Kebangsaan Bukit Durian, Sekolah Rendah and a mosque, which is located approximately 25km northeast from the project site boundary.

## **Local Employment**

It is expected that the Sokor gold project will create employment opportunities for residents of the area. In the communities surveyed, the residents expressed the desire to seek work at the site for both skilled and unskilled work opportunities.

## **Sustainable Development**

CNMC has already made substantial efforts to integrate its project activities with the local communities and is assisting them in social and economic development programmes. Its is providing the local community with new employment opportunities, training and skills development for those staff employed in CNMC's mining activities and has broadened the economic and commercial base for local businesses, contributing to economic growth in the region. In addition it provides opportunities for business investors to invest in Kelantan.

The main negative social impact that can occur at mine closure is the loss of jobs resulting from the cessation of mining. CNMC's proposed mitigation measure is to ensure that the workforce that has been employed will be fully trained with multi-skilled experience that is easily transferable at the time of mine closure, thus enabling potential further employment in other sectors.

## **Social Responsibility**

The CNMC Group has a corporate policy on Social Responsibility and has been participating in community development projects that are aligned with the needs and objectives of local communities identified through engagement and consultation. These projects have included emergency relief during floods in Kelantan, and poverty alleviation through provision of basic food necessities and basic school supplies. During 2010, CMNM provided 120 education bursaries to school age children who reside in or near the Sokor area, and sponsored 1,000 stationery sets to local school children. These programmes are planned to continue.

## **Conclusions**

The main environmental risk of the project relates to the potential for offsite water contamination via site contaminated water run-off from the heap leach area, the TSF, the plant area and mining areas. The inclusion of environmental (settling) ponds and a proposed heap leach plant stormwater (safety) pond will mitigate the risk of offsite water contamination during operations. Water treatment may be necessary for an unspecified time following mine closure to handle residual cyanide within the heap leach structures whilst the heaps are being detoxified.

The project has an Environmental Management Plan which is approved by the Government agency and if implemented appropriately, should minimise the risk of environmental pollution. CNMC has identified the key potential environmental impacts arising from the project's operations and their associated mitigation measures which are being implemented.

CNMC has already made substantial efforts to integrate its project activities with the local communities and is assisting them in social and economic development programmes. The CNMC Group has a corporate policy on Social Responsibility and has been participating in community development projects which include emergency relief, poverty alleviation and education.

### 13.0 LIFE OF MINE PRODUCTION SCHEDULE

The production schedule shown in Table 13.1 is based on the production forecasts in the CNMC report for the period 2010 to 2014. The initial production for the period from 2010 to 2012 is based on ore reserves at a cut off grade of 0.5g/t Au while the further two years production is based on primary ore, Inferred resources and possible extensions at Rixen's pit.

Under the mine plan for the first initial period to 2012, mine production increases from an initial rate of 265,000tpa of material including 84,000tpa of ore in 2011 up to 1.74Mtpa of material including 705,000tpa of ore in 2012. The waste to ore stripping ratio over this period is approximately 1.5:1. BDA notes that under the present terms of the mining approval, production is limited to 300,000tpa and further mining approval will be required prior to 2012.

For the extended mine life an additional ore inventory of 2.0Mt has been assumed at a mining rate around 3.3Mtpa of total material. Ore production is forecast at 600,000tpa of ore to the heap leach pads at Rixen's while an initial 230,000t of primary ore will be treated in the CIL plant increasing to 490,000t in 2014. The waste to ore stripping ratio over the extended production period is approximately 2.3:1.

Plant throughput at Sokor from July to December 2010 ramped up to about 1,800t per month, 35% of the design capacity of the vat leaching operation. While increased throughput can be expected, achievement of the planned throughput of 84,000t for 2011 will require further ramp up and commissioning of additional plant during that year. CNMC plans to commence heap leaching operations on oxidised Rixen's ore in the fourth quarter of 2011 and to attain full production by first quarter of 2012. BDA has noted earlier its reservations concerning control of the water balance of heap leaching operations in wet climates.

CNMC plans to commission its primary ore CIL plant with an initial capacity of 165,000tpa, based on a throughput of 500t per day, increasing to 230,000tpa during 2013. The total ore treatment rate is projected to increase to an average of 1.0Mtpa for 2013 and 2014, with gold production projected to be around 50,000ozs in 2013 increasing to 58,000ozs in 2014. Most of the production from 2011 through to 2014 is planned to be from the heap leach operation whilst the vat leach capacity remains at around 60,000tpa.

Table 13.1
Sokor Gold Operation - Projected Production Schedule

Item	Unit	2010	2011	2012	Sub-total 2010-2012	2013	2014	Total 2010-2014
Ore Mined	kt	6.0	84.0	705.0	795.0	913.0	1,090.0	2,798.0
Waste Mined	kt	6.0	180.6	1,035.1	1,221.7	1,851.8	2,854.6	5,928.1
Material Mined	kt	12.0	264.6	1,740.1	2,016.7	2,764.8	3,944.6	8,726.1
Strip Ratio	W:O	1.0	2.2	1.5	1.5	2.0	2.6	2.1
Ore Treatment Destination								
Vat/Pond Leach	kt	6.0	22.0	40.0	68.0	43.0	0.0	111.0
Heap Leach	kt	0.0	62.0	665.0	727.0	640.0	600.0	1,967.0
CIL Leach	kt	0.0	0.0	0.0	0.0	230.0	490.0	720.0
Ore Treated	kt	6.0	84.0	705.0	795.0	913.0	1,090.0	2,798.0
Ore Grade	g/t Au	3.91	3.51	2.21	2.36	2.43	2.31	2.36
Au Recovery	%	74	70	70	70	73	74	73
Au Production	ozs	550	6,000	31,500,	38,100	50,000	58,100	146,200

Note: production to 2012 is based on current reserves; reserves for 2013-2014 are still to be defined

Achievement of projected metallurgical performance will depend to a large extent on the success of the heap leach in a difficult operating environment and on the projected gold recovery from primary ore of 80%. Testwork to confirm that this recovery can be achieved has not yet been carried out.

### **Conclusions**

While the initial mining is based on ore reserves estimated from a mine plan developed by CSU, the extended production schedule is based on a more conceptual mine plan. The overall mine production schedule provides a general guide to production but further work is required to better define the parameters used to prepare the plan. Metallurgical performance depends on successful operation of a heap leach in a wet tropical climate and on achievement of good gold recovery from primary ore on which testwork has yet to be carried out. The proposed ramp-up in tonnage processed may also be difficult to achieve.

### 14.0 CAPITAL COSTS

## 14.1 Initial Development Capital

CNMC reported an initial project development capital cost to July 2010 of approximately US\$1.2M. These costs are shown in Table 14.1.

Table 14.1
Sokor Gold Project Development Capital Expenditure to July 2010

Item	Total Capital
	US\$M
Mining Capital Costs	Nil
Process Plant Direct Costs	0.92
Site Infrastructure Costs	0.26
Total	1.18

Note: CNMC reported capital costs in Malaysian Ringgit, conversion to US\$ at 0.32 exchange rate

The mine plan is based on the use of contractors to carry out the mining operation, removing the requirement to purchase mine equipment; all other mining costs are considered within the mine operating costs.

No mobilisation costs for the mining contractor have been included; such costs are usually included as a capital cost. In the future additional mobilisation costs are likely to be incurred as production ramps up and there will need to be some establishment costs in accessing the Rixen's mining area.

Process capital costs to date of approximately US\$0.9M have established the vat leaching operation, including the crushing plant, the three leaching vats and the process ponds, and the gold room.

## 14.2 Future Mine Expansion Capital

CNMC has estimated the future mine expansion capital cost for construction of the heap leach facility at Rixen's deposit and construction of the CIL plant at US\$8.14M. This forecast is summarised in Table 14.2.

An allowance of US\$1.5M has been made for construction of the proposed multi-lift heap leaching facility to process oxidised ore. A total of US\$3.5M has been allowed for the cost of construction of a CIL plant to process primary ore types. Testwork has yet to be completed on this material and the plant design is therefore preliminary and subject to modification. The proposed capital cost is therefore provisional and subject to change.

Table 14.2
Sokor Gold Project Future Mine Expansion Capital Expenditure

Item	Total Capital US\$M
Expanding production capacity of plant	0.20
Multi-lift heap leaching system	1.50
CIL plant design and construction (500t/d)	3.50
Exploration Expenses	2.00
Contractor's Indirect Costs	0.20
Project Contingency	0.74
Total	8.14

BDA notes that it has not seen either a breakdown of the costs incurred during construction of the vat leaching operation or proposed costs for future development of the heap leach and CIL facilities.

## Conclusions

CNMC has projected expenditure of US\$8.1M to establish heap leaching and CIL processing facilities in 2011 and 2012 respectively. No detailed engineering estimates have been reviewed and BDA considers that these cost estimates should be regarded as conceptual.

### 15.0 OPERATING COSTS

Site operating costs have been set out in a report from CNMC dated June 2010; the cost estimates were prepared by CSU and are shown in Table 15.1. Total site costs are projected to be US\$16.6M over the initial period from 2010 to 2012; process plant and mine operating costs comprise 37% and 26% of the total respectively. Other costs include administration and realisation costs and royalties. Cash cost of gold produced is projected to average US\$438/oz for the first three years of the mine life and average US\$489/oz in the two further years of extended mine life.

Mine operating costs include both ore mining of US\$2.65/t of ore mined and waste mining costs of US\$1.76/t of waste mined. Ore mining includes the mining of the ore and the associated geological control of mining; waste mining includes both the initial extraction of waste and the reclamation cost of the waste.

It is planned to use a contractor to carry out the mining operation but at this stage there are no contract tenders to indicate the likely contract mining rates; generally BDA considers the mining costs to be preliminary.

Processing costs are estimated to be US\$30.8M over the period from mid-2010 to 2014, equivalent to US\$11/t processed. CNMC has proposed operating costs of US\$8/t for heap leaching, US\$10/t for vat leaching and US\$20/t for CIL processing of ore. BDA considers that these cost estimates are likely to be of a preliminary nature and notes that they assume that costs are variable with tonnage. A proportion of processing costs are likely to be fixed, implying that unit operating costs will be higher while processes are ramping up to full production. CNMC has not supplied actual operating costs for the period from July to December 2010. BDA considers that the processing cost estimates are unlikely to be more accurate than  $\pm 50\%$ .

Administration charges are estimated at US\$540k per annum for 2011 and 2012 increasing to US\$660k for the period when the CIL plant will be operating in 2013-2014. A royalty is payable to KSG equal to 5% of gross revenue and an additional tribute equal to 3% of gross revenue is payable to KSEDC.

Until the planned operations are better defined, cost estimations will remain provisional. Overall BDA considers the operating costs are likely to be accurate to  $\pm 50\%$ .

Table 15.1
Operating Costs for the Sokor Gold Project

					Sub-total			Total
Item	Unit	2010	2011	2012	2010-2012	2013	2014	2010-2014
Production								
Ore Treated	kt	6	84	705	795	913	1,090	2,798
Gold Production	kozs	0.55	6.0	31.5	38.1	50.0	58.1	146.2
Costs								
Mining	US\$k	54	540	3,690	4,284	5,679	7,913	17,876
Processing	US\$k	60	716	5,320	6,096	10,150	14,600	30,846
Administration	US\$k	240	540	540	1,320	660	660	2,640
Realisation	US\$k	40	109	577	696	915	1,063	2,674
<b>Total Operating Costs</b>	US\$k	394	1,905	10,127	12,396	17,404	24,236	54,036
Royalties	US\$k	58	670	3,529	4,257	5,200	6,042	15,499
Total Cash Cost	US\$k	452	2,575	13,656	16,653	22,604	30,278	69,535
<b>Unit Costs</b>								
Mining	US\$/t	9.0	6.4	5.2	5.4	6.2	7.3	6.4
Processing *	US\$/t	10.0	8.5	7.5	7.7	11.1	13.4	11.0
Administration	US\$/t	40.0	6.4	0.8	1.7	0.7	0.6	0.9
Total Cash Cost	US\$/oz	816	431	433	438	452	521	475

\*Note: Unit costs are combined for vat leach, heap leach and CIL; royalty is based on a gold price of US\$1,300/oz

### **Conclusions**

Operating costs have been based on preliminary plans and estimates and due to the lack of detail are considered scoping study estimates at best, accurate to within  $\pm 50\%$ . This is likely to remain the case until the development plans are better defined and engineered. In BDA's opinion the unit operating costs appear low for the small scale of operation, although it is recognised that labour costs are likely to be low.

### 16.0 STATEMENT OF CAPABILITY

This report has been prepared by Mr George Brech, Mr Ian White, Mr Peter Ingham and Mr Adrian Brett, Senior Associates of Behre Dolbear Australia Pty Limited, and reviewed by Mr Malcolm Hancock and Mr John McIntyre, Executive Directors of BDA.

Behre Dolbear has offices in Denver, New York, Toronto, Vancouver, Hong Kong, London, Sydney, Guadalajara and Santiago. The parent company, Behre Dolbear & Company Inc., was founded in 1911 and is the oldest continuously operating mineral industry consulting firm in North America. The firm specialises in mineral evaluations, due diligence assessments, independent expert reports and strategic planning as well as technical geological, mining and process consulting.

BDA confirms that its Directors and Associates listed below who have contributed to the report in accordance with their specific technical qualifications are appropriately qualified and experienced to act as Qualified Persons for the purposes of this report. Mr Hancock and Mr Brech are qualified geologists and a fellow and member respectively of the Australasian Institute of Mining and Metallurgy and have in excess of five years of relevant experience in gold and precious metal deposits, mineralization and mining; Mr McIntyre is a qualified mining engineer and a fellow of the Australasian Institute of Mining and Metallurgy and has in excess of five years of relevant experience in gold and precious metal deposits mineralization and mining. Mr Hancock, Mr Brech and Mr McIntyre are professionally qualified and have the experience to act as Competent Persons under JORC, and Qualified Persons under the SGX listing rules.

The principal consultants engaged in the review on behalf of BDA are as follows:

**Mr Malcolm Hancock** (BA. MA. FAusIMM, FGS, MIMM, MGSA, MMICA) is Executive Director of BDA and a geologist with over 30 years experience of exploration and mining projects principally in Australia, Africa and South East Asia. He has extensive experience in the areas of resource/reserve estimation, reconciliation, project feasibility and review, independent expert and due diligence reports, mine geology and mining operations. He has been involved in the feasibility, construction, and commissioning of several mining operations. He has worked on both open pit and underground mines.

Mr John McIntyre (BEng. (Hon. Mining), FAusIMM, MMICA, CPMin) is Managing Director of BDA and a mining engineer who has been involved in the mining industry for more than 30 years, with operational and management experience in base metals, gold and coal. He has been involved in numerous mining projects and operations, feasibility studies and technical and operational reviews in Australia, West Africa, New Zealand, North and South America, PNG and South East Asia.

**Mr George Brech** (BSc. MSc. (Eng. Geol.), MAusIMM) is a Senior Associate of BDA and a geologist with over 35 years experience in exploration and mining projects in Australia, Southeast Asia and Africa. He has extensive experience in the areas of resource/reserve estimation, project feasibility and development, exploration and mine geology. For the last 20 years he has been involved with exploration, mining project evaluation and feasibility studies in Southeast Asia and Australia.

**Mr Ian White** (BSc. (Hon.), MSc. DIC, MAusIMM) is a Senior Associate of BDA with more than 25 years experience in the Australian mining industry. He has held senior management positions in operating mines, and has been involved in plant design and optimisation, process design testwork, feasibility studies and plant commissioning and project valuation. He is experienced in CIP/CIL technology, flotation, gravity separation, heap leaching, SX/EW, comminution, magnetic separation and pelletising. He has worked with a range of commodities including gold, copper, iron ore and base metals.

Mr Peter Ingham (BSc. (Mining), MSc. DIC, GDipAppFin (Sec Inst), CEng, FAusIMM, MIMM)) is General Manager Mining for BDA and is a graduate mining engineer with more than 25 years in the mining industry in Europe, Africa, Australia and Asia. His experience includes operations management, mining contract management, strategic planning, project assessment and acquisition, cost estimation and operational audits and trouble-shooting. He is experienced in a range of commodities, including copper, nickel, base metals, gold and platinum, in both surface and underground mining. Mr Ingham has undertaken the mining aspects of the review including geotechnical, mine design and production issues and capital and operating costs.

Mr Adrian Brett (BSc. (Hon. Geol.), MSc. (Geotech.), M.Envir.Law, MAusIMM) is a Senior Associate of BDA with more than 25 years experience in environmental and geo-science, including the fields of environmental planning and impact assessment, site contamination assessments, environmental audit, environmental law and policy analysis and the development of environmental guidelines and training manuals. He has worked in an advisory capacity with several United Nations and Australian government agencies. He has completed assignments in Australia, Indonesia, Laos, Myanmar, Thailand, the Philippines, Africa and South America.

### 17.0 STATEMENT OF INDEPENDENCE

Neither the principals nor associates of BDA have any material interest or entitlement in the securities or assets of CNMC or PPCF. BDA will be paid a fee for this report comprising its normal professional rates and reimbursable expenses. The fee is not contingent on the conclusions of this report.

### 18.0 LIMITATIONS AND CONSENT

This assessment has been based on data, reports and other information made available to BDA by CNMC and referred to in this report. BDA has been advised that the information is complete as to material details and is not misleading. A draft copy of this report has been provided to CNMC and PPCF for comment as to any errors of fact, omissions or incorrect assumptions.

BDA has reviewed the data, reports and information provided and has used consultants with appropriate experience and expertise relevant to the various technical aspects. The opinions stated herein are given in good faith. BDA believes that the basic assumptions are factual and correct and the interpretations reasonable.

BDA does not accept any liability other than its statutory liability to any individual, organisation or company and takes no responsibility for any loss or damage arising from the use of this report, or information, data, or assumptions contained therein. With respect to the BDA report and use thereof, CNMC agrees to indemnify and hold harmless BDA, its shareholders, directors, officers, and associates against any and all losses, claims, damages, liabilities or actions to which they or any of them may become subject under any securities act, statute or common law and will reimburse them on a current basis for any legal or other expenses incurred by them in connection with investigating any claims or defending any actions.

The report is provided to the Directors of CNMC for the purpose of assisting them in assessing the technical issues and associated risks of the proposed project development and in relation to the proposed listing on the Catalist Board of the SGX-ST; it should not be used or relied upon for any other purpose. The report does not constitute a technical or legal audit. Neither the whole nor any part of this report nor any reference thereto may be included in, or with, or attached to any document or used for any purpose without BDA's written consent to the form and context in which it appears.

Yours faithfully

BEHRE DOLBEAR AUSTRALIA PTY LTD

Malcolm C Hancock Executive Director - BDA John S McIntyre Managing Director - BDA

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APPENDIX 1
AUSTRALASIAN CODE FOR REPORTING EXPLORATION RESULTS,
MINERAL RESOURCES AND ORE RESERVES

#### AUSTRALASIAN CODE FOR REPORTING

## EXPLORATION RESULTS, MINERAL RESOURCES AND ORE RESERVES

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia - December 2004 (JORC Code) is a non-prescriptive code, in that it does not lay out specific limits for resource classification in terms of such things as drill hole spacing. Instead it emphasises the principles of transparency, materiality and the role of the Competent Person. Some guidelines do exist (e.g. the Australian Guidelines for the Estimation of Coal Resources and Reserves) however they are not mandatory and classification is left in the hands of the Competent Person.

The JORC Code incorporates an important distinction between Mineral Resources, which are a measure of insitu material, and Ore Reserves, which provide an estimate of material which is planned to be mined and which incorporate allowances for estimated mining dilution and mining recovery or mining losses.

The JORC Code uses the following definitions for Mineral Resources and Ore Reserves:

**Measured Mineral Resource** is that part of Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a **high** level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

**Indicated Mineral Resource** is that part of Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a **reasonable** level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

**Inferred Mineral Resource** is that part of Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a **low** level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.

**Proved Ore Reserve** is the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified

A Proved Ore Reserve represents the highest confidence category of Ore Reserve estimates.

**Probable Ore Reserve** is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistic ally assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

A Probable Ore Reserve has a lower level of confidence than a Proved Ore Reserve but has adequate reliability to provide the basis of mining studies.



### CHINESE RESOURCES AND RESERVES REPORTING STANDARDS 1999

The Chinese 1999 Classification of Resources/Reserves for Solid Fuels and Mineral Commodities (GB/T 17766-1999) replaced the previous code (GB 13908-1992) which was essentially a geological classification, taking little account of a deposit's economics or the level of mining studies that had been carried out on it. The 1999 code attempts to address this deficiency by using a three component system (EFG) that considers the deposit economics (E), the level of mining feasibility studies that have been carried out (F) and the level of geological confidence (G) using a numerical ranking.

The EFG system produces a three digit code for a deposit that reflects the three variables and can be represented in three dimensional form as shown in Figure 1. For example, a deposit classified as 121 is economically viable (1), has had pre-feasibility studies carried out (2) and is well understood geologically (1).

The Chinese Code uses three terms – Resource, Basic Reserve and Extractable Reserve. Extractable Reserves include mining recovery factors (mining losses and dilution) whereas Basic Reserves do not include these factors and hence are comparable to resources under the JORC code. Suffix (b), e.g. 121(b), is used to distinguish Basic Reserves from Extractable Reserves; suffixes (S) and (M) are used to identify assumed economic viability. Certain categories are not allowed, e.g. pre-feasibility or feasibility study level studies cannot be conducted on Inferred Resources, and so 123 and 113 are invalid classifications. Also Extractable Reserves are not estimated for marginally economic (or lesser) deposits so the (b) suffix is considered redundant. The term Intrinsically Economic indicates that while the deposit may be economic, insufficient studies have been carried out to clearly determine its status.

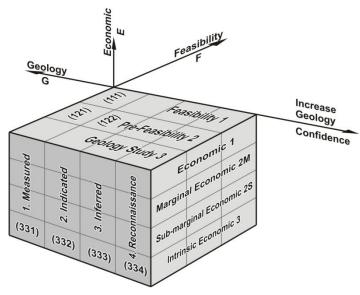
Unlike the old code, the new 1999 code does not specify drill hole spacing for each category. In the case of gold, copper and cobalt (and other metals), there is an accompanying Chinese Professional Standard (DZ/T 0214-2002) that lays out rules for determining the level of geological confidence.

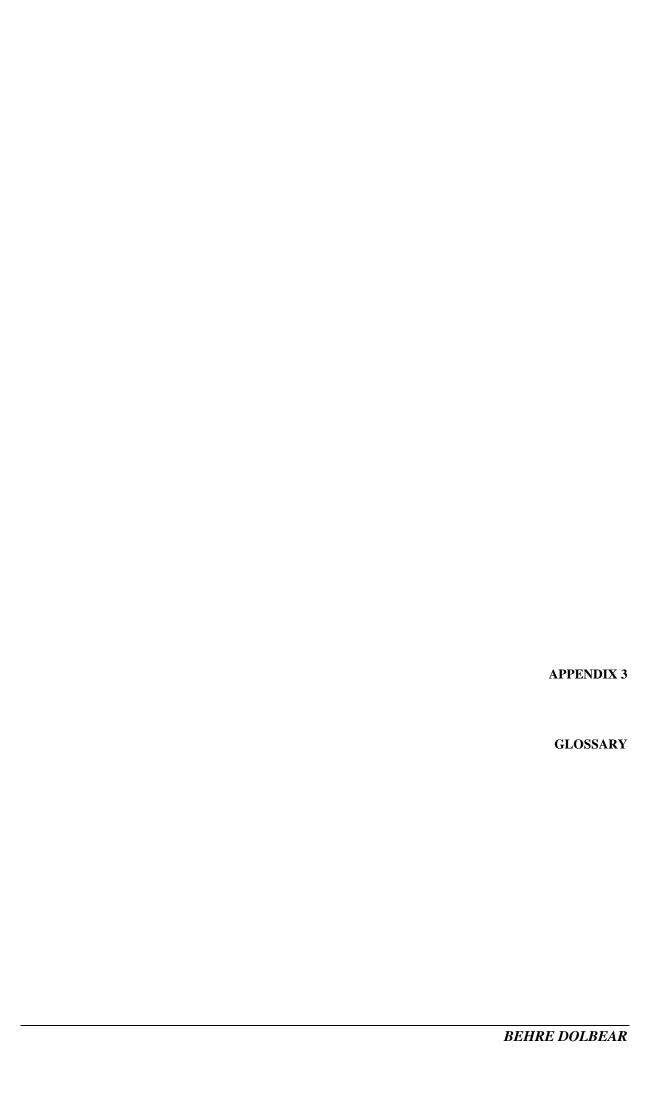
Table 1 outlines an approximate conversion guideline of the Chinese Code to the JORC Code based on the controlling variables discussed above.

Table 1
Chinese Code to JORC Code Conversion Guidelines

Chinese Category	111, 121	112, 122	111b, 121b 2M11, 2M21, 2S11, 2S21, 331	122b, 2M22, 2S22, 332	333	334
JORC Category	Proved Reserve	Probable Reserve	Measured Resource	Indicated Resource	Inferred Resource	Exploration Potential

Figure 1 Chinese Resource/Reserve Classification Matrix (1999)





# **APPENDIX 3 - GLOSSARY**

Term/Abbreviation	Description
AAS	Atomic Absorption Spectrometry
Ag	Silver
ALS	ALS Group (Laboratory)
AM	Asia Mining Sdn. Bhd.
Au	Gold
BDA	Behre Dolbear Australia Pty Limited
CGRI	Changchun Gold Research Institute
Chinese Code	Classification of Resources/Reserves for Solid Fuels and Mineral Commodities 1999
CIL	Carbon in Leach
CMNM	CMNM Mining Group Sdn. Bhd.
CNMC	CNMC Goldmine Limited
CSU	Central South University, Changska, China
Cu	Copper
DOE	Kelantan State Department of Environment
DTM	Digital Terrain Model
Duff	Duff Development Company Limited
EDM	Electronic Distance Measurement
EIA	Environmental Impact Assessment
EL	Exploration Licence
EMM	Eastern Mining and Metals Company Environmental Management Plan
EMP EPCM	Environmental Management Plan
G4S	Engineering, Procurement and Construction Management G4S Limited
	Grams per Tonne
g/t ha	Hectare
JORC Code	Joint Ore Reserve Committee (Australian Mineral Resource and Ore Reserve) Code
km	Kilometre
km <sup>2</sup>	Square Kilometre
KSEDC	Kelantan State Economic Development Corporation
KSG	Kelantan State Government
ktpa	Thousand Tonnes Per Annum
ICPAES	ICP Atomic Emission Spectrometry
IP	Induced Polarisation (Geophysical Survey)
L	Litre
LME	London Metal Exchange
LOM	Life of Mine
m	Metre
μm	Micron $(10^{-6})$
M	Million
$m^3$	Cubic Metre
mg	Milligrams
mg/L	Milligrams per Litre
MIDA	Malaysian Industrial Development Authority
mm	Millimetre
MNG	Malaysian National Grid (Survey)
NaCN	Sodium Cyanide
OK	Ordinary Kriging
oz	Ounce
$P_{80}$	80% Passing (Screen Size)
Pb	Lead
PPCF	Prime Partners Corporate Finance Pte. Limited
ppm	Parts Per Million
RC	Reverse Circulation
ROM	Run-of-Mine
SGX-ST	Singapore Exchange Securities Trading Limited
SRL	Standard and Reference Laboratories
t	Tonne
tpa	Tonnes Per Annum
TRA	TRA Mining (Malaysia) Sdn. Bhd.
TSF	Tailings Storage Facility
US\$	US Dollar
Zn	Zinc