

Amendments to GEM Listing Rules  
(Additions Underlined and Deletions Struck Through)

**Chapter 18A**

**EQUITY SECURITIES**

**MINERAL COMPANIES**

**Scope**

This Chapter sets out additional listing conditions, disclosure requirements and continuing obligations for Mineral Companies. The additional disclosure requirements and continuing obligations will apply to a listed issuer which becomes a Mineral Company by undertaking a Relevant Notifiable Transaction involving the acquisition of Mineral or Petroleum Assets. Certain continuing obligations will apply to listed issuers that publish details of Resources and/or Reserves.

The main headings are:

18A.01 Definitions and interpretation

18A.02 - 18A.04 Conditions for listing of new applicant Mineral Companies

18A.05 - 18A.08 Contents of listing documents for new applicants

18A.09 - 18A.13 Relevant Notifiable Transactions involving the acquisition or disposal of Mineral or Petroleum Assets

18A.14 - 18A.17 Continuing obligations

18A.18 - 18A.27 Statements on Resources and/or Reserves

18A.28 - 18A.34 Reporting Standard

**DEFINITIONS AND INTERPRETATION**

18A.01 For the purposes of this Chapter unless otherwise stated or the context otherwise requires:-

- (1) terms signifying the singular include the plural and vice versa;
- (2) the term mineral includes solid fuels; and
- (3) the following terms have the meanings set out below:-

**"CIMVAL"**

Standards and Guidelines for Valuation of Mineral Properties endorsed by the Canadian Institute of Mining, Metallurgy and Petroleum, February 2003 (final version) as amended from time to time.

<b><u>"Competent Evaluator"</u></b>	<u>a Competent Person undertaking valuations that satisfies rule 18A.23.</u>
<b><u>"Competent Person"</u></b>	<u>a person that satisfies rules 18A.21 and 18A.22.</u>
<b><u>"Competent Person's Report"</u></b>	<u>the public report prepared by a Competent Person on Resources and/or Reserves, in compliance with this Chapter (rules 18A.18 to 18A.33) and the applicable Reporting Standard, as modified by this Chapter.</u>
<b><u>"Contingent Resources"</u></b>	<u>those quantities of Petroleum estimated, at a given date, to be potentially recoverable from known accumulations by application of development projects, but which are not currently considered to be commercially recoverable due to one or more contingencies.</u>
<b><u>"Feasibility Study"</u></b>	<u>a comprehensive design and costing study of the selected option for the development of a mineral project in which appropriate assessments have been made of realistically assumed geological, mining, metallurgical, economic, marketing, legal, environmental, social, governmental, engineering, operational and all other relevant factors, which are considered in enough detail to demonstrate at the time of reporting that extraction is reasonably justified and the factors reasonably serve as the basis for a final decision by a financial institution to finance the development of the project.</u>
<b><u>"Indicated Resource"</u></b>	<u>that part of a mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence.</u>
<b><u>"Inferred Resource"</u></b>	<u>that part of a mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence, sampling and assumed but not verified geological and/or grade continuity.</u>

<b><u>"IOSCO Multilateral MOU"</u></b>	<u>the International Organisation of Securities Commissions Multilateral Memorandum of Understanding Concerning Consultation and Co-operation and the Exchange of Information dated May 2002 as amended from time to time.</u>
<b><u>"JORC Code"</u></b>	<u>the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2004 edition), as published by the Joint Ore Reserves Committee, as amended from time to time.</u>
<b><u>"Major Activity"</u></b>	<u>an activity of an issuer and/or its subsidiaries which represents 25% or more of the total assets, revenue or operating expenses of the issuer and its subsidiaries. Reference should be made to the issuer's latest audited consolidated financial statements.</u>
<b><u>"Measured Resource"</u></b>	<u>that part of a mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence.</u>
<b><u>"Mineral or Petroleum Assets"</u></b>	<u>mineral assets and/or Petroleum assets or the equivalent as defined in either CIMVAL, the SAMVAL Code, or the VALMIN Code.</u>
<b><u>"Mineral Company"</u></b>	<u>a new applicant whose Major Activity (whether directly or through its subsidiaries) is the exploration for and/or extraction of Natural Resources, or a listed issuer that completes a Relevant Notifiable Transaction involving the acquisition of Mineral or Petroleum Assets.</u>
<b><u>"Natural Resources"</u></b>	<u>mineral and/or Petroleum.</u>
<b><u>"NPVs"</u></b>	<u>net present values.</u>

<b><u>"NI 43-101"</u></b>	<u>also referred to as National Instrument 43-101, the (Canadian) Standards of Disclosure for Mineral Projects, including Companion Policy 43-101, as amended from time to time.</u>
<b><u>"Petroleum"</u></b>	<u>a naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid or solid phase, as further defined in PRMS.</u>
<b><u>"Possible Reserves"</u></b>	<u>those quantities of Petroleum which analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves.</u>
<b><u>"Pre-feasibility Study"</u></b>	<u>a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, for underground mining, or the pit configuration, for an open pit, has been established and an effective method of mineral processing has been determined. It includes a financial analysis based on realistically assumed or reasonable assumptions of technical, engineering, legal, operating, economic, social, and environmental factors and the evaluation of other relevant factors which are enough for a Competent Person, acting reasonably, to determine if all or part of the mineral Resource may be classified as a mineral Reserve.</u>
<b><u>"PRMS"</u></b>	<u>the Petroleum Resources Management System published by the Society of Petroleum Engineers, American Association of Petroleum Geologists, World Petroleum Council, and Society of Petroleum Evaluation Engineers in March 2007, as amended from time to time.</u>
<b><u>"Probable Reserves"</u></b>	<u>(1) with regard to minerals, the economically mineable part of an Indicated, and in some circumstances, a Measured Resource.</u>

(2) with regard to Petroleum, those quantities of Petroleum which analysis of geoscience and engineering data show are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves.

**"Prospective Resources"**

those quantities of Petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations.

**"Proved Reserves"**

(1) with regard to minerals, the economically mineable part of a Measured Resource.

(2) with regard to Petroleum, those quantities of Petroleum, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations.

**"Recognised Professional Organisation"**

a self-regulatory organisation of professional individuals in the mining or Petroleum industry which admits individuals on the basis of their academic qualifications and experience, requires compliance with professional standards of competence and ethics established by the organisation and has disciplinary powers including the power to suspend or expel a member.

**"Relevant Notifiable Transaction"**

a transaction that falls into one of the classifications set out in rules 19.06(3) to (6), namely a major transaction, very substantial disposal, very substantial acquisition and reverse takeover.

**"Reporting Standard"**

a recognised standard acceptable to the Exchange, including:

(1) the JORC Code, NI 43-101, and the SAMREC Code, with regard to mineral Resources and Reserves;

(2) PRMS with regard to Petroleum Resources and Reserves; and

(3) CIMVAL, the SAMVAL Code, and the VALMIN Code, with regard to valuations.

“Reserve”

(1) with regard to minerals, the economically mineable part of a Measured, and/or Indicated Resource, taking into account diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments to a minimum of a Pre-feasibility Study must have been carried out. Mineral Reserves are subdivided in order of increasing confidence into Probable Reserves and Proved Reserves.

Note: Although the term mineral Reserve is used throughout this Chapter it is recognised that the term ore reserve is used in the JORC Code.

(2) with regard to Petroleum, those quantities of Petroleum anticipated to be commercially recoverable by the application of development projects to known accumulations from a given date forward under defined conditions.

“Resource”

(1) with regard to minerals, a concentration or occurrence of material of intrinsic economic interest in or on the Earth’s crust in such form, quality and quantity that there are reasonable prospects for their eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are subdivided, in order of

increasing geological confidence, into Inferred, Indicated and Measured Resources, as defined in the JORC Code.

(2) with regard to Petroleum, Contingent Resources and/or Prospective Resources.

**"SAMREC Code"** the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (2007 edition), as amended from time to time.

**"SAMVAL Code"** the South African Code for the Reporting of Mineral Asset Valuation (2008 edition), as amended from time to time.

**"Scoping Study"** a preliminary evaluation of a mineral project, including an assessment of the economic viability of mineral Resources. Scoping Studies should include forecast production schedules and cost estimates based on data under which the Resources are identified.

**"VALMIN Code"** the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (2005 edition) as prepared by the VALMIN Committee, a joint committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Mineral Industry Consultants Association, as amended from time to time.

**"Valuation Report"** the public valuation report prepared by a Competent Evaluator on Mineral or Petroleum Assets in compliance with this Chapter (rule 18A.34) and the applicable Reporting Standard, as modified by this Chapter. It may form part of a Competent Person's Report.

## CONDITIONS FOR LISTING OF NEW APPLICANT MINERAL COMPANIES

18A.02 In addition to satisfying the requirements of Chapter 11, a Mineral Company which has applied for listing must also satisfy the requirements of this Chapter.

18A.03 A Mineral Company must:-

(1) establish to the Exchange's satisfaction that it has the right to participate actively in the exploration for and/or extraction of Natural Resources, either:-

(a) through control over a majority (by value) of the assets in which it has invested together with adequate rights over the exploration for and/or extraction of Natural Resources; or

Note: 'control over a majority' means an interest greater than 50%.

(b) through adequate rights (arising under arrangements acceptable to the Exchange), which give it sufficient influence in decisions over the exploration for and/or extraction of the Natural Resources;

(2) establish to the Exchange's satisfaction that it has at least a portfolio of:-

(a) Indicated Resources; or

(b) Contingent Resources,

identifiable under a Reporting Standard and substantiated in a Competent Person's Report. This portfolio must be meaningful and of sufficient substance to justify a listing;

(3) if it has commenced production, provide an estimate of cash operating costs including the costs associated with:-

(a) workforce employment;

(b) consumables;

(c) fuel, electricity, water and other services;

(d) on and off-site administration;

(e) environmental protection and monitoring;

(f) transportation of workforce;

(g) product marketing and transport;

(h) non-income taxes, royalties and other governmental charges; and

(i) contingency allowances;



Note: A Mineral Company must:

- set out the components of cash operating costs separately by category;
- explain the reason for any departure from the list of items to be included under cash operating costs; and
- discuss any material cost items that should be highlighted to investors.

(4) demonstrate to the Exchange's satisfaction that it has available working capital for 125% of the group's present requirements, that is for at least the next 12 months, which must include:-

- (a) general, administrative and operating costs;
- (b) property holding costs; and
- (c) the cost of any proposed exploration and/or development;

Note: Capital expenditures do not need to be included in working capital requirements. Where they are financed out of borrowings, relevant interest and loan repayments must be included.

(5) ensure that its working capital statement made under Appendix 1A (paragraph 36) states it has available sufficient working capital for 125% of the group's present requirements, that is for at least 12 months from the date of its listing document.

18A.04 The Exchange may accept a trading record period of less than two financial years for rule 11.12A (and an accountants' report covering a shorter period than that specified in rule 11.10) for a new applicant Mineral Company provided that its directors and senior managers, taken together, have sufficient experience relevant to the exploration and/or extraction activity that the Mineral Company is pursuing. Individuals relied on must have a minimum of five years relevant industry experience. Details of the relevant experience must be disclosed in the listing document of the new applicant.

Note 1: Where the Exchange accepts a trading record of less than two financial years, a new applicant must still meet the cash flow requirement of HK\$20 million for that shorter trading record period, in accordance with Rule 11.14.

Note 2: A Mineral Company relying on this rule must demonstrate that its primary activity is the exploration for and/or extraction of Natural Resources.

### **CONTENTS OF LISTING DOCUMENTS FOR NEW APPLICANTS**

18A.05 In addition to the information set out in Appendix 1A, a Mineral Company must include in its listing document:-

- (1) a Competent Person's Report;
- (2) a statement that no material changes have occurred since the effective date of the Competent Person's Report. Where there are material changes, these must be prominently disclosed;

- (3) the nature and extent of its prospecting, exploration, exploitation, land use and mining rights and a description of the properties to which those rights attach, including the duration and other principal terms and conditions of the concessions and any necessary licences and consents. Details of material rights to be obtained must also be disclosed;
- (4) a statement of any legal claims or proceedings that may have an influence on its rights to explore or mine;
- (5) disclosure of specific risks and general risks. Companies should have regard to Practice Note 4 on suggested risk analysis; and
- (6) if relevant and material to the Mineral Company's business operations, information on the following:-
  - (a) project risks arising from environmental, social, and health and safety issues;
  - (b) any non-governmental organisation impact on sustainability of mineral and/or exploration projects;
  - (c) compliance with host country laws, regulations and permits, and payments made to host country governments in respect of tax, royalties and other significant payments on a country by country basis;
  - (d) sufficient funding plans for remediation, rehabilitation and, closure and removal of facilities in a sustainable manner;
  - (e) environmental liabilities of its projects or properties;
  - (f) its historical experience of dealing with host country laws and practices, including management of differences between national and local practice;
  - (g) its historical experience of dealing with concerns of local governments and communities on the sites of its mines, exploration properties, and relevant management arrangements; and
  - (h) any claims that may exist over the land on which exploration or mining activity is being carried out, including any ancestral or native claims.

**Additional disclosure requirements that apply to certain new applicant Mineral Companies**

18A.06 If a Mineral Company has begun production, it must disclose an estimate of the operating cash cost per appropriate unit for the minerals and/or Petroleum produced.

18A.07 If a Mineral Company has not yet begun production, it must disclose its plans to proceed to production with indicative dates and costs. These plans must be supported by at least a Scoping Study, substantiated by the opinion of a Competent Person. If exploration rights or rights to extract Resources and/or Reserves have not yet been obtained, relevant risks to obtaining these rights must be prominently disclosed.

18A.08 If a Mineral Company is involved in the exploration for or extraction of Resources, it must prominently disclose to investors that its Resources may not ultimately be extracted at a profit.

**RELEVANT NOTIFIABLE TRANSACTIONS INVOLVING THE ACQUISITION OR DISPOSAL OF MINERAL OR PETROLEUM ASSETS**

18A.09 A Mineral Company proposing to acquire or dispose of assets which are solely or mainly Mineral or Petroleum Assets as part of a Relevant Notifiable Transaction must:-

- (1) comply with Chapter 19 and Chapter 20, if relevant;
- (2) produce a Competent Person's Report, which must form part of the relevant circular, on the Resources and/or Reserves being acquired or disposed of as part of the Relevant Notifiable Transaction;

Note: The Exchange may dispense with the requirement for a Competent Person's Report on disposals where shareholders have sufficient information on the assets being disposed of.

- (3) in the case of a major (or above) acquisition, produce a Valuation Report, which must form part of the relevant circular, on the Mineral or Petroleum Assets being acquired as part of the Relevant Notifiable Transaction; and
- (4) comply with the requirements of rules 18A.05(2) to 18A.05(6) in respect of the assets being acquired.

Note: Material liabilities that remain with the issuer on a disposal must also be discussed.

**Requirements that apply to listed issuers**

18A.10 A listed issuer proposing to acquire assets which are solely or mainly Mineral or Petroleum Assets as part of a Relevant Notifiable Transaction must comply with rule 18A.09.

18A.11 On completion of a Relevant Notifiable Transaction involving the acquisition of Mineral or Petroleum Assets, unless the Exchange decides otherwise, a listed issuer will be treated as a Mineral Company.

**Requirements that apply to Mineral Companies and listed issuers**

18A.12 The Exchange may dispense with the requirement to produce a new Competent Person's Report or a Valuation Report under rules 18A.05(1), 18A.09(2) or 18A.09(3), if the issuer has available a previously published Competent Person's Report or Valuation Report (or equivalent) which complies with rules 18A.18 to 18A.34 (where applicable), provided the report is no more than six months old. The issuer must provide this document and a no material change statement in the listing document or circular for the Relevant Notifiable Transaction.

18A.13 An issuer must obtain the prior written consent of a Competent Person(s) or Competent Evaluator for their material to be included in the form and context in which it appears in a listing document or circular for the Relevant Notifiable Transaction, whether or not such person or firm is retained by the listing applicant or the issuer.

## **CONTINUING OBLIGATIONS**

### **Disclosure in reports**

18A.14 A Mineral Company must include in its interim (half-yearly) and annual reports details of its exploration, development and mining production activities and a summary of expenditure incurred on these activities during the period under review. If there has been no exploration, development or production activity, that fact must be stated.

### **Publication of Resources and Reserves**

18A.15 A listed issuer that publicly discloses details of Resources and/or Reserves must give an update of those Resources and/or Reserves once a year in its annual report, in accordance with the reporting standard under which they were previously disclosed or a Reporting Standard.

18A.16 A Mineral Company must include an update of its Resources and/or Reserves in its annual report in accordance with the Reporting Standard under which they were previously disclosed.

18A.17 Annual updates of Resources and/or Reserves must comply with rule 18A.18.

Note: Annual updates are not required to be supported by a Competent Person's Report and may take the form of a no material change statement.

## **STATEMENTS ON RESOURCES AND/OR RESERVES**

### **Presentation of data**

18A.18 Any data presented on Resources and/or Reserves by a Mineral Company in a listing document, Competent Person's Report, Valuation Report or annual report, must be presented in tables in a manner readily understandable to a non-technical person. All assumptions must be clearly disclosed and statements should include an estimate of volume, tonnage and grades.

### **Basis of evidence**

18A.19 All statements referring to Resources and/or Reserves:-

(1) in any new applicant listing document or circular relating to a Relevant Notifiable Transaction, must be substantiated in a Competent Person's Report which must form part of the document; and

(2) in all other cases, must at least be substantiated by the issuer's internal experts.

## **Petroleum Competent Persons' Reports**

18A.20 A Competent Person's Report for Mineral Companies involved in the exploration for and/or extraction of Petroleum Resources and Reserves must include the information set out in Appendix 18.

### **Competent Person**

18A.21 A Competent Person must:-

- (1) have a minimum of five years experience relevant to the style of mineralization and type of deposit under consideration or to the type of Petroleum exploration, reserve estimate (as appropriate), and to the activity which the Mineral Company is undertaking;
- (2) be professionally qualified, and be a member in good standing of a relevant Recognised Professional Organisation, in a jurisdiction where, in the Exchange's opinion, the statutory securities regulator has satisfactory arrangements (either by way of the IOSCO Multilateral MOU or other bilateral agreement acceptable to the Exchange) with the Securities and Futures Commission of Hong Kong for mutual assistance and exchange of information for enforcing and securing compliance with the laws and regulations of that jurisdiction and Hong Kong; and
- (3) take overall responsibility for the Competent Person's Report.

18A.22 A Competent Person must be independent of the issuer, its directors, senior management and advisers. Specifically the Competent Person retained must:-

- (1) have no economic or beneficial interest (present or contingent) in any of the assets being reported on;
- (2) not be remunerated with a fee dependent on the findings of the Competent Person's Report;
- (3) in the case of an individual, not be an officer, employee or proposed officer of the issuer or any group, holding or associated company of the issuer; and
- (4) in the case of a firm, not be a group, holding or associated company of the issuer. Any of the firm's partners or officers must not be officers or proposed officers of any group, holding or associated company of the issuer.

### **Additional requirements of Competent Evaluators**

18A.23 In addition to the requirements set out in rules 18A.21(2) and 18A.22, a Competent Evaluator must:-

- (1) have at least ten years relevant and recent general mining or Petroleum experience (as appropriate);
- (2) have at least five years relevant and recent experience in the assessment and/or valuation of Mineral or Petroleum Assets or securities (as appropriate); and

- (3) hold all necessary licences.

Note: A Competent Person's Report and Valuation Report may be performed by the same Competent Person provided he or she is also a Competent Evaluator.

### **Scope of Competent Persons' Reports and Valuation Reports**

18A.24 A Competent Person's Report or Valuation Report must comply with a Reporting Standard as modified by this Chapter, and must:-

- (1) be addressed to the Mineral Company or listed issuer;
- (2) have an effective date (being the date when the contents of the Competent Person's Report or Valuation Report are valid) less than six months before the date of publishing the listing document or circular relating to a Relevant Notifiable Transaction required under the Listing Rules; and
- (3) set out what Reporting Standard has been used in preparing the Competent Person's Report or Valuation Report, and explain any departure from the relevant Reporting Standard.

### **Disclaimers and Indemnities**

18A.25 A Competent Person's Report or Valuation Report may contain disclaimers of sections or topics outside their scope of expertise in which the Competent Person or Competent Evaluator relied upon other experts' opinions, but must not contain any disclaimers of the report in its entirety.

18A.26 The Competent Person or Competent Evaluator must prominently disclose in the Competent Person's Report or Valuation Report the nature and details of all indemnities provided by the issuer. Indemnities for reliance placed on information provided by issuers and third party experts (for information outside the Competent Person's or Competent Evaluator's expertise) are generally acceptable. Indemnities for fraud and gross negligence are generally unacceptable.

### **Obligations of sponsor**

18A.27 Any sponsor appointed to or by a new applicant Mineral Company under Chapter 6A must ensure that any Competent Person or Competent Evaluator meets the requirements of this Chapter.

## **REPORTING STANDARD**

### **Mineral reporting standard**

18A.28 In addition to satisfying the requirements of Chapter 17 (as modified by this Chapter), a Mineral Company exploring for and/or extracting mineral Resources and Reserves must also satisfy rules 18A.29 and 18A.30.

18A.29 A Mineral Company must disclose information on mineral Resources, Reserves and/or exploration results either:-

- (1) under:
  - (a) the JORC Code;
  - (b) NI 43-101; or
  - (c) the SAMREC Code,

as modified by this Chapter; or
- (2) under other codes acceptable to the Exchange as communicated to the market from time to time, provided the Exchange is satisfied that they give a comparable standard of disclosure and sufficient assessment of the underlying assets.

Note: The Exchange may allow presentation of Reserves under other reporting standards provided reconciliation to a Reporting Standard is provided. A Reporting Standard applied to specific assets must be used consistently.

18A.30 A Mineral Company must ensure that:-

- (1) any estimates of mineral Reserves disclosed are supported, at a minimum, by a Pre-feasibility Study;
- (2) estimates of mineral Reserves and mineral Resources are disclosed separately;
- (3) Indicated Resources and Measured Resources are only included in economic analyses if the basis on which they are considered to be economically extractable is explained and they are appropriately discounted for the probabilities of their conversion to mineral Reserves. All assumptions must be clearly disclosed. Valuations for Inferred Resources are not permitted;
- (4) for commodity prices used in Pre-feasibility Studies, Feasibility Studies and valuations of Indicated Resources, Measured Resources and Reserves:-
  - (a) the methods to determine those commodity prices, all material assumptions, and the basis on which those prices represent reasonable views of future prices are explained clearly; and
  - (b) if a contract for future prices of mineral Reserves exists, the contract price is used; and
- (5) for forecast valuations of Reserves and profit forecasts, sensitivity analyses to higher and lower prices are supplied. All assumptions must be clearly disclosed.

## Petroleum reporting standard

18A.31 In addition to satisfying the requirements of Chapter 17 (as modified by this Chapter), a Mineral Company exploring for and/or extracting Petroleum Resources and Reserves must also satisfy rules 18A.32 and 18A.33.

18A.32 A Mineral Company must disclose information on Petroleum Resources and Reserves either:-

- (1) under PRMS as modified by this Chapter; or
- (2) under other codes acceptable to the Exchange if it is satisfied that they give a comparable standard of disclosure and sufficient assessment of the underlying assets.

Note: A Reporting Standard applied to specific assets must be used consistently.

18A.33 A Mineral Company must ensure that:-

- (1) where estimates of Reserves are disclosed, the method and reason for choice of estimation are disclosed (i.e. deterministic or probabilistic methods, as defined in PRMS). Where the probabilistic method is used, the underlying confidence levels applied must be stated;
- (2) if the NPVs attributable to Proved Reserves and Proved plus Probable Reserves are disclosed, they are presented on a post-tax basis at varying discount rates (including a reflection of the weighted average cost of capital or minimum acceptable rate of return that applies to the entity at the time of evaluation) or a fixed discount rate of 10%;
- (3) Proved Reserves and Proved plus Probable Reserves are analysed separately and principal assumptions (including prices, costs, exchange rates and effective date) and the basis of the methodology are clearly stated;
- (4) if the NPVs attributable to Reserves are disclosed, they are presented using a forecast price as a base case or using a constant price as a base case. The bases for the forecast case must be disclosed. The constant price is defined as the unweighted arithmetic average of the closing price on the first day of each month within the 12 months before the end of the reporting period, unless prices are defined by contractual arrangements. The basis on which the forecast price is considered reasonable must be disclosed and Mineral Companies must comply with rule 18A.30(5);

Note: In the forecast case under PRMS, the economic evaluation underlying the investment decision is based on the entity's reasonable forecast of future conditions, including costs and prices, which will exist during the life of the project.

- (5) if estimated volumes of Contingent Resources or Prospective Resources are disclosed, relevant risk factors are clearly stated;

Note: Under PRMS, wherever the volume of a Contingent Resource is stated, risk is expressed as the chance that the accumulation will be commercially developed and graduate to the reserves class. Wherever the volume of a Prospective Resource is stated, risk is expressed as the chance that a potential accumulation will result in a significant discovery of Petroleum.



- (6) economic values are not attached to Possible Reserves, Contingent Resources or Prospective Resources; and
- (7) where an estimate of future net revenue is disclosed, whether calculated without discount or using a discount rate, it is prominently disclosed that the estimated values disclosed do not represent fair market value.

### **Mineral or Petroleum Asset Valuation Reports**

18A.34 A Mineral Company must ensure that:-

- (1) any valuation of its Mineral or Petroleum Assets is prepared under the VALMIN Code, SAMVAL Code, CIMVAL or such other code approved by the Exchange from time to time;
- (2) the Competent Evaluator states clearly the basis of valuation, relevant assumptions and the reason why a particular method of valuation is considered most appropriate, having regard to the nature of the valuation and the development status of the Mineral or Petroleum Asset;
- (3) if more than one valuation method is used and, different valuations result, the Competent Evaluator comments on how the valuations compare and on the reason for selecting the value adopted; and
- (4) in preparing any valuation a Competent Evaluator meets the requirements set out in rule 18A.23.

# The Stock Exchange of Hong Kong Limited

## Practice Note 4

to the Rules Governing the Listing of Securities  
on the Growth Enterprise Market of  
The Stock Exchange of Hong Kong Limited  
(the “GEM Listing Rules”)

Issued under rule 1.07 of the GEM Listing Rules

### SUGGESTED RISK ASSESSMENT FOR MINERAL COMPANIES

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#### Risk Assessment

Although other jurisdictions do not have a specific risk factor requirement, a listing of significant risk factors provides investors with a summary of significant risks to the company and its properties. A risk factor section is often included in reports filed in jurisdictions without a specific requirement for their inclusion. This can be particularly important for investors looking to invest in the mineral resource sector.

In their technical reports, most consulting firms include risk analysis tables that address common areas of risk along with an assessment of the degree of risk for the particular project. These assessments are necessarily subjective and qualitative. Risk has been classified from minor to major, which can be further clarified as:

- **Major Risk:** the factor poses an immediate danger of a failure, which if uncorrected, will have a material effect (>15% to 20%) on the project cash flow and performance and could potentially lead to project failure.
- **Moderate Risk:** the factor, if uncorrected, could have a significant effect (10% to 15% or 20%) on the project cash flow and performance unless mitigated by some corrective action.
- **Minor Risk:** the factor, if uncorrected, will have little or no effect (<10%) on project cash flow and performance.

The likelihood of a risk must also be considered. Likelihood within a 7-year time frame can be considered as:

- Likely: will probably occur
- Possible: may occur
- Unlikely: unlikely to occur

The degree or consequence of a risk and its likelihood are combined into an overall risk assessment as presented in Table 1.1.

<b>Table 1.1</b>			
<b>Overall Risk Assessment</b>			
<b>Likelihood of Risk</b> <b>(within 7 years)</b>	<b>Consequence of Risk</b>		
	<b>Minor</b>	<b>Moderate</b>	<b>Major</b>
<u>Likely</u>	<u>Medium</u>	<u>High</u>	<u>High</u>
<u>Possible</u>	<u>Low</u>	<u>Medium</u>	<u>High</u>
<u>Unlikely</u>	<u>Low</u>	<u>Low</u>	<u>Medium</u>

Table 1.2 presents an example of a risk assessment for a coal project and shows how the likelihood and consequences of a risk are combined into an overall rating. Note that the detailed items considered are project specific.

<b>Table 1.2</b>			
<b>Project Risk Assessment Table Before Mitigation</b>			
<b>Hazard/Risk Issue</b>	<b>Likelihood</b>	<b>Consequence Rating</b>	<b>Risk</b>
<b><u>Geological</u></b>			
<u>Lack of Significant Resource</u>	<u>Unlikely</u>	<u>Minor</u>	<u>Low</u>
<u>Loss of Significant Reserve</u>	<u>Possible</u>	<u>Major</u>	<u>High</u>
<u>Significant Unexpected Faulting</u>	<u>Likely</u>	<u>Major</u>	<u>High</u>
<u>Significant Subsidence</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Poor Geological Roof</u>	<u>Likely</u>	<u>Moderate</u>	<u>Medium</u>
<u>Unexpected Groundwater Ingress</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Unexpected Seam Gas Outburst</u>	<u>Unlikely</u>	<u>Moderate</u>	<u>Low</u>
<b><u>Mining</u></b>			
<u>Significant Production Shortfalls</u>	<u>Possible</u>	<u>Major</u>	<u>High</u>
<u>Production Pumping System Adequacy</u>	<u>Unlikely</u>	<u>Major</u>	<u>Medium</u>
<u>Adverse Pre-Mining Stress</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Excessive Gas</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Spontaneous Combustion</u>	<u>Unlikely</u>	<u>Major</u>	<u>Medium</u>
<u>Significant Geological Structures</u>	<u>Likely</u>	<u>Moderate</u>	<u>High</u>
<u>Poor Development Roof/Rib Conditions</u>	<u>Possible</u>	<u>Minor</u>	<u>Low</u>
<u>Poor Development Floor Conditions</u>	<u>Unlikely</u>	<u>Moderate</u>	<u>Low</u>
<u>Poor Production Roof</u>	<u>Unlikely</u>	<u>Major</u>	<u>Medium</u>
<u>Excess Surface Subsidence</u>	<u>Possible</u>	<u>Major</u>	<u>High</u>
<u>Outbursts</u>	<u>Unlikely</u>	<u>Major</u>	<u>Medium</u>
<u>Windblasts</u>	<u>Unlikely</u>	<u>Moderate</u>	<u>Low</u>
<b><u>Processing/Handling</u></b>			
<u>Lower Yields</u>	<u>Possible</u>	<u>Minor</u>	<u>Low</u>
<u>Lower Plant Production Levels</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Higher Plant Production Costs</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>

<u>Plant Reliability</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Handling System</u>	<u>Unlikely</u>	<u>Moderate</u>	<u>Low</u>
<b><u>Environmental</u></b>			
<u>Water Discharge Non-Compliance</u>	<u>Possible</u>	<u>Minor</u>	<u>Low</u>
<u>Significant Unpredicted</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Subsidence</u>			
<u>Regulatory Consent/Variation</u>	<u>Possible</u>	<u>Minor</u>	<u>Low</u>
<u>Delays</u>			
<b><u>Capital and Operating Costs</u></b>			
<u>Project Timing Delays</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Mine Management – Plan</u>	<u>Unlikely</u>	<u>Minor</u>	<u>Low</u>
<u>Capital Cost Increases – Start-Up</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<u>Capital Costs – Ongoing</u>	<u>Unlikely</u>	<u>Minor</u>	<u>Low</u>
<u>Operating Costs Underestimated</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>
<b><u>Project Implementation</u></b>			
<u>Critical Path Delays</u>	<u>Possible</u>	<u>Moderate</u>	<u>Medium</u>

There are five high risk areas identified in Table 1.2. While this approach is necessarily subjective and a number of issues are related, the areas with high risk rating may be summarized as follows:

- loss of significant reserve,
- significant production shortfalls,
- significant unexpected faulting,
- significant geological structures, and
- excess surface subsidence.

The areas of high risk, ranked by their importance, should be an important part of technical and valuation reports. Although general areas such as geology, reserve estimation, production, processing, financial issues, social and environmental issues, etc. are common major topics in risk assessments, the specific risks appropriate to each property and each company will differ from property to property and company to company. For a particular property or company, the number and order of risk factors will vary from year to year. In periods of low commodity prices, a risk factor relating to commodity prices will be far more important than during periods when commodity prices are high. Availability of needed equipment (drill rigs, trucks, shovels, etc.) also varies from year to year. The issuer is responsible for ensuring that appropriate risk factor disclosures are made.

## Appendix 18

### CONTENT OF A COMPETENT PERSON'S REPORT FOR PETROLEUM RESERVES AND RESOURCES

(See rule 18A.20)

The Competent Person's Report for Petroleum Reserves and Resources must include the following:-

1. (1) Table of contents
- (2) Executive summary
- (3) Introduction:-
  - (a) the Competent Person's terms of reference;
  - (b) a statement by the Competent Person confirming his details including his full name, address, professional qualifications, expertise, years of experience, professional society affiliations, and membership details of a relevant Recognised Professional Organisation;
  - (c) a statement by the Competent Person that he is independent of the Mineral Company, its directors, senior management, and advisers, in compliance with GEM Listing Rule 18A.22.
  - (d) a description of the nature and source of any information used in the preparation of the Competent Person's Report including any limitations on the availability of information;
  - (e) details of any information used in the preparation of the Competent Person's Report that was provided by the Mineral Company;
  - (f) a statement that the Resources and Reserves have been substantiated by evidence (from a site visit, if appropriate) that:-
    - (i) is supported by analyses; and
    - (ii) takes account of information supplied to the Competent Person;
  - (g) if a site visit has been undertaken, when the site visit was undertaken and by whom;
  - (h) if a site visit has not been undertaken, a satisfactory reason as to why not;

Note: It is for the Competent Person to determine whether or not a site visit is necessary.

  - (i) the effective date of the estimates;

- (j) the effective date of the Competent Person's Report;
- (k) the Reporting Standard used in the Competent Person's Report, and an explanation of any departure from the relevant Reporting Standard;
- (l) abbreviated definitions of the categories of Reserves and Resources used in the Competent Person's Report.

(4) Summary of Assets:-

- (a) a description or table of assets held by the Mineral Company including:-
  - (i) the percentage ownership by the Mineral Company; and
  - (ii) the gross and net acreage of the assets;
- (b) a summary of gross and net:-
  - (i) Proved Reserves; and
  - (ii) Proved Reserves plus Probable Reserves,  
(net of any revenue interest and/or entitlement interests, as appropriate) as of [date];
- (c) gross (100% of field) production profiles for:-
  - (i) Proved Reserves; and
  - (ii) Proved Reserves plus Probable Reserves (optional),  
(listed separately)
- (d) a summary of any upside in respect of Possible Reserves, Contingent Resources, and Prospective Resources (optional);
- (e) a summary of net present values ("NPVs") attributable to:-
  - (i) Proved Reserves; and
  - (ii) Proved Reserves plus Probable Reserves;  
including any caveats. This disclosure is optional.

Note: Volumetric or monetary results of differing classes of Reserves and Resources with other classes must not be combined. Prospective Resources must not be summed (either to each other or to other classes).

(5) Discussion:-

- (a) general description of the region's petroleum history;
- (b) details of the regional and basin generalized geology and evident petroleum system;

(6) Field(s), licence(s) and asset(s):-

- (a) For each field, licence and asset (or a number of fields, licences, and assets), reporting shall be divided into four explicitly different sections:-

- (i) Reserves;
- (ii) Contingent Resources;
- (iii) Prospective Resources; and
- (iv) other assets material to the Mineral Company;

Note: Examples of other assets material to a Mineral Company are: a pipeline which is not part of the producing assets facilities, an evacuation pipeline, or a petrochemical plant.

- (b) For each of 6(a)(i), (ii) and (iii) the following information must be provided, as applicable:-

- (i) the nature and extent of any rights to explore and extract hydrocarbons and a description of the properties to which those rights attach, including the duration and other principal terms and conditions of the concessions and any necessary licences and consents and the responsibility for any rehabilitation and/or abandonment costs;
- (ii) a description of geological characteristics including a stratigraphic column;
- (iii) the characteristics of the reservoir (including thickness, porosity, permeability, pressure, and any recovery mechanism), or that judged to be expected in the case of Prospective Resources;
- (iv) details of any exploration drilling including the depth of zone tested, rock formation encountered, and any liquids and/or gases encountered and/or recovered;
- (v) the date production commenced;
- (vi) details of any developments;
- (vii) details of any commercial risks for any Contingent Resources;

- (viii) details of any geological risk assessment for any Prospective Resources;
- (ix) the methods employed for exploration and/or extraction;
- (x) plans and maps for each field demonstrating any geological characteristics, platforms, pipelines, wells, bore holes, sample pits, trenches and similar characteristics;
- (xi) discussion on the field development plan;
- (xii) comments on plant and machinery including suitability and expected life capability in terms of rates, conditions, and costs of maintaining;
- (xiii) production schedules and the basis for any estimations;
- (xiv) comments on any production forecasts made by the Mineral Company; and
- (xv) a statement of:-

(A) Proved Reserves;

(B) Proved Reserves plus Probable Reserves;

(C) Possible Reserves; (optional)

including the method of estimation and the expected recovery factor;

Note: Information on Possible Reserves must be stated separately and not combined with information on any other Reserves. A clear statement must be provided that any Possible Reserves are entirely excluded from any asset valuation or statement of Reserves.

(7) Business:-

- (a) the general nature of the business of the Mineral Company, distinguishing between different activities which are material to the business having regard to the profits or losses, assets employed and any factors affecting the importance of the activity;
- (b) a statement about the Mineral Company's long term prospects;
- (c) an assessment of the technical staff employed by the Mineral Company;
- (d) any other factors that might affect value perceptions;



Note: Examples of other factors that might affect value perceptions are transportation difficulties and marketing.

(8) Economic evaluation:-

If a Mineral Company provides an economic evaluation based on Discounted Cash Flow analyses, the following additional requirements should be complied with:-

- (a) separate NPVs must be calculated for:-
  - (i) Proved Reserves; and
  - (ii) Proved Reserves plus Probable Reserves; (optional)
- (b) the oil prices or gas prices used in forecast cases and constant cases must be clearly stated, including any discounts or premiums of quality, transportation, or logistics, if applicable;
- (c) a summary of the fiscal terms under which the licence(s) or permit(s) are held must be stated;
- (d) varying discount rates (including the weighted average cost of capital or the minimum acceptable rate of return that applies to the Mineral Company when the evaluation is made) or a fixed discount rate of 10% must be applied;
- (e) if the NPVs attributable to Reserves are disclosed, they are presented using a forecast price as a base case or using a constant price as a base case. Under the base case:-
  - (i) any assumptions made by the Competent Person must be stated including:-
    - (A) the cost inflation rate;
    - (B) if applicable, the exchange rate;
    - (C) the effective date; and
    - (D) any salient fiscal terms and assumptions;
- (f) a table of NPV results for the Mineral Company's net economic interests must be included, which must not combine volumes or monetary conclusions for different categories;
- (g) sensitivity analyses for oil and gas prices, must be included, if appropriate, clearly stating the parameters chosen;
- (h) separate economic evaluation of plant and machinery must be included if not used in the extraction of Reserves;

Note: Pipelines are an example of plant and machinery not used in the extraction of Reserves.

(9) Social and Environmental:-

Discussion on any social and/or environmental issues, which are relevant to the exploration or exploitation of the hydrocarbons must be included, if material.

Note: Examples of social and environmental issues include difficulties of access, difficulties in laying pipelines, and special environmental concerns such as fishing grounds.

(10) Basis of opinion:-

(a) a statement that the Competent Person's Report has been prepared within the context of the Competent Person's understanding of the effects of petroleum legislation, taxation, and other regulations, that currently apply to assets;

(b) a statement that the Competent Person is in a position to attest to the rights of the Mineral Company to explore, mine, or explore and mine, the relevant Resources and Reserves;

(c) a statement that the Competent Person's Report is, and must remain, an independent opinion despite certain information used in the preparation of the Competent Person's Report having been given to it by the Mineral Company;

(11) Illustrations – of sufficient clarity to graphically present the material within the text. Maps must include a geographical reference system and scale bar for clarity. Technical drawings must include a legend to explain features within the diagram.

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**Chapter 11**  
**EQUITY SECURITIES**  
**QUALIFICATIONS FOR LISTING**

**Additional conditions applicable to new applicants**

*Accountants' report*

...

11.14 The Exchange may accept a trading record period of less than two financial years for the purposes of rule 11.12A (and an accountants' report covering a shorter period than that specified in rule 11.10) and waive or vary the ownership and management requirements in rule 11.12A(2) and (3) for prospective new applicants with reasons acceptable to the Exchange in the following cases:

- (1) in respect of newly-formed "project" companies (for example a company formed for the purposes of a major infrastructure project);
- (2) in respect of ~~natural resource exploitation companies~~ Mineral Companies; and
- (3) in exceptional circumstances under which the Exchange considers it desirable to accept a shorter period.

*Note: Where the Exchange accepts a trading record of less than two financial years, the applicant must nevertheless still meet the cash flow requirement of HK\$20 million for that shorter trading record period.*

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**Chapter 17**  
**EQUITY SECURITIES**  
**CONTINUING OBLIGATIONS**

**Preliminary**

17.01 An issuer shall comply (and undertakes pursuant to its application for listing (Appendix 5A), once any of its securities have been admitted to listing, to comply), at all times, with all of the requirements of the GEM Listing Rules from time to time in force, save for any that are stated not to apply. Set out in this Chapter is the general continuing obligation of disclosure, together with certain other general continuing obligations.

This Chapter is not exhaustive and issuers are reminded that other Chapters contain additional specific obligations, including, in particular, the following:—

Chapter 5 — Directors, Secretary and Corporate Governance Matters

Chapter 9 — Suspension and Resumption of Trading, Cancellation and Withdrawal of Listing

Chapter 11 — Qualifications for Listing

Chapter 13 — Restrictions on Purchase, Disposal and Subscription

Chapter 16 — Publication Requirements

Chapter 18 — Financial Information

Chapter 19 — Notifiable Transactions

Chapter 20 — Connected Transactions.

Additional continuing obligations are set out in Chapter 31, in so far as they relate to issuers having debt securities in issue. Additional requirements relating to continuing obligations are set out in Chapter 18A dealing with Mineral Companies.

# Appendix 1

## Contents of Listing Documents

### Part A

#### Equity Securities

##### **In the case where listing is sought for equity securities of an issuer no part of whose share capital is already listed**

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##### **Financial information about the group and the prospects of the group**

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36.

Note. In the case of a Mineral Company, a statement by the directors that in their opinion the issuer has available sufficient working capital for 125% of the group's present requirements.

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##### **Information about the issuer's management**

41. (1) The full name, residential or business address of every director and senior manager or proposed director and senior manager. In addition, brief biographical details in respect of the directors, proposed directors, senior managers and proposed senior managers of the issuer shall be provided. Such details will include name, age, positions held with the issuer and other members of the issuer's group, length of service with the issuer and the group including current and past directorships in other listed public companies in the last three years and such other information (which may include business experience) of which shareholders should be aware, pertaining to the ability or integrity of such persons. As regards the biographical details in respect of each director, proposed director, supervisor and proposed supervisor, such details must not be less than those required to be disclosed in an announcement relating to the appointment or re-designation of the director or supervisor pursuant to rule 17.50(2). Where any of the directors or senior managers are related, having with any other director or senior manager any one of the relationships set out below, that fact should be stated. The relationships are spouse; any person cohabiting with the director or senior manager as a spouse; and any relative meaning a child or step-child regardless of age, a parent or step-parent, a brother, sister, step-brother or a step-sister, a mother-in-law, a father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law. Where any director or proposed director is a director or employee of a

company which has an interest or short position in the shares or underlying shares of the issuer which would fall to be disclosed to the issuer under Divisions 2 and 3 of Part XV of the Securities and Futures Ordinance, that fact shall be stated. (Notes 9 and 12)

It is the responsibility of the directors of the issuer to determine which individual or individuals constitute senior management. Senior management may include directors of subsidiaries and heads of divisions, departments or other operating units within the group as senior management as, in the opinion of the issuer's directors, is appropriate.

41. (2) Where the issuer is a Mineral Company and wishes to apply for a waiver of the trading record period requirement under rule 18A.04, the relevant management expertise and experience of such persons described in paragraph 41(1) of at least five years relevant to the exploration and/or extraction activity that the Mineral Company is pursuing.