

ASX interim guidance:
Reporting scoping studies

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Introduction

ASX is working with ASIC, JORC and industry to develop an appropriate and robust regulatory framework to regulate the disclosure of scoping studies. This will likely take some time.

In the meantime, ASX is publishing this interim guidance to assist listed mining entities disclosing the results of scoping studies to understand and comply with their existing regulatory obligations.

This Guidance should be read in conjunction with Chapter 5 of the ASX Listing Rules, ASX Guidance Note 31 *Reporting on Mining Activities*,¹ ASX's online publication *ASX Mining Reporting – Frequently Asked Questions*² and ASIC's Information Sheet 214 *Mining and Resources – Forward Looking Statements*.³

What is a 'scoping study'?

Clause 38 of the JORC code defines a 'scoping study' as:

... an order of magnitude technical and economic study of the potential viability of Mineral Resources. It includes appropriate assessments of realistically assumed Modifying Factors together with any other relevant operational factors that are necessary to demonstrate at the time of reporting that progress to a Pre-Feasibility Study can be reasonably justified. ...

Scoping Studies are commonly the first economic evaluation of a project undertaken and may be based on a combination of directly gathered project data together with assumptions borrowed from similar deposits or operations to the case envisaged. They are also commonly used internally by companies for comparative and planning purposes.

In some jurisdictions, scoping studies are referred to as "preliminary economic assessments".

Guidelines for reporting the results of a scoping study

Set out below are some guidelines to assist listed mining entities disclosing the results of scoping studies to comply with applicable regulatory obligations.

Further information about the regulatory requirements underpinning these guidelines can be found in the sections following the guidelines.

It should be emphasised that the responsibility for compliance with the regulatory obligations governing the disclosure of scoping studies rests squarely with board and senior management of the entity disclosing the study. ASX does not generally pre-vet announcements before they are released on the Market Announcements Platform. Listed entities therefore need to be vigilant and take appropriate advice to ensure that any announcement about a scoping study complies with all applicable regulatory obligations.

¹ Available online at: http://www.asx.com.au/documents/rules/gn31_reporting_on_mining_activities.pdf.

² Referred to in this guidance as "ASX FAQ" available online at: <http://www.asx.com.au/regulation/compliance/asx-mining-reporting-faqs.htm><http://asic.gov.au/regulatory-resources/takeovers/forward-looking-statements/mining-and-resources-forward-looking-statements/>.

³ Referred to in this guidance as "IS 214" and available online at: <http://asic.gov.au/regulatory-resources/takeovers/forward-looking-statements/mining-and-resources-forward-looking-statements/>.

1. Include all of the information required by the Listing Rules

The initial report⁴ of the results of a scoping study that includes a production target or forecast financial information based on a production target (as most will) must disclose all of the information required under Listing Rules 5.16 and 5.17. This information is outlined in greater detail under the heading 'Listing Rule requirements' on page 6.

Notably, this includes a statement that the estimated ore reserves and/or mineral resources underpinning the scoping study have been prepared by a competent person or persons in accordance with the requirements in the JORC Code.⁵

2. Ensure you have reasonable grounds for any forward-looking statements

To comply with the Corporations and ASIC Acts, you must have reasonable grounds for any forward-looking statement included in the initial report of a scoping study. This includes any production target or forecast financial information based on a production target, such as an NPV, IRR or payback period.

For further details, see 'Corporations Act and ASIC Act requirements for forward-looking statements' on page 8.

3. Disclose all of your material assumptions

The initial report of the results of a scoping study must disclose all of the material assumptions on which it is based.⁶ This includes, in particular, any material assumptions that have been made about:

- the 'modifying factors' in the JORC Code;
- the timeframe for development and production;
- the availability of funding; and
- the sequencing of various categories of resources and reserves in the production schedule.⁷

If you fail to disclose your material assumptions on these matters, you may receive a request for further information from ASX.⁸

4. Include the required cautionary statements

Clause 38 of the JORC Code⁹ requires an *appropriate* cautionary statement to be included in the same paragraph as, or immediately following, the disclosure of a scoping study. Clause 38 includes a short sample cautionary statement¹⁰ but, in ASX's view, that cautionary statement in many cases will need to be augmented to reflect the surrounding facts and circumstances and to address some of the other issues dealt with in this guidance.

The following is a more complete sample cautionary statement that addresses those issues:

⁴ Under Listing Rule 5.19, an entity that has issued a public report under Listing Rules 5.16 or 5.17 is not required to include the information set out in those rules in any subsequent public report in relation to a production target, or forecast financial information derived from a production target, provided all of the conditions set out in rule 5.19 are satisfied.

⁵ See the text accompanying note 23 below.

⁶ See 'Disclosure of material assumptions' on page 8.

⁷ Noting the comment in guidance Note 31 that: "Where a mining entity is reporting a production target that is based on a portion of inferred mineral resources and/or an exploration target in addition to ore reserves and/or measured and indicated mineral resources, the reporting entity must be satisfied that the respective proportions of inferred mineral resources and the exploration target are not the determining factors in project viability. In addition, the inferred mineral resources and exploration target should not feature as a significant proportion early in the mine plan."

⁸ See 'ASX's approach if material assumptions are not disclosed' on page 10.

⁹ By dint of Listing Rule 5.6, compliance with clause 38 is also a requirement under the Listing Rules.

¹⁰ See note 35 below.

The Scoping Study referred to in this announcement has been undertaken [... disclose purpose of scoping study¹¹ ...]. It is a preliminary technical and economic study of the potential viability of the [name of mining project]. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further [exploration and] evaluation work and appropriate studies are required before [Entity] will be in a position to estimate any ore reserves or to provide any assurance of an economic development case.

The Scoping Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While [Entity] considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, funding of in the order of \$XX million will likely be required. Investors should note that there is no certainty that [Entity] will be able to raise that amount of funding when needed.¹² It is also [possible/likely] that such funding may only be available on terms that may be dilutive to or otherwise affect the value of [Entity]'s existing shares.¹³

It is also possible that [Entity] could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce [Entity's] proportionate ownership of the project.¹⁴

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Such a cautionary statement should not only be included in the same paragraph as, or immediately following, the disclosure of the results of a scoping study, it should also be given equal prominence as the disclosure of those results.

Where applicable, you must also include the cautionary statements required under Listing Rule 5.16 (referred to in the text accompanying notes 26, 27 and 30 below).

5. Ensure the report is a fair and balanced summary of the scoping study

A report of a scoping study must be a fair and balanced summary of the study or else it may be misleading and breach the Corporations and ASIC Acts.

In addition to disclosing the material assumptions underpinning the results of the scoping study, the report should disclose any material qualifications expressed in the scoping study.

ASX would expect a scoping study to include a sensitivity analysis that reflects reasonable variations in the material assumptions and other inputs. A report about the results of a scoping study should summarise the results of that sensitivity analysis.¹⁵

¹¹ For example, "to ascertain whether a business case can be made for raising the further funding needed to proceed to more definitive studies on the viability of the [name of mining project]."

¹² Note that if the entity does not have reasonable grounds for believing that it will be able to raise all of the necessary funding on its own, then it must explain the range of options available to it to address that issue and it must have reasonable grounds for believing that those options should in fact be available to it. The entity should generally explain somewhere in its announcement its basis for believing that it will be able to raise all of the necessary funding on its own or that it will be able to pursue the alternative options disclosed. If it does not, it may face queries from ASIC or ASX as to the reasonableness of the grounds supporting its statements to that effect.

¹³ Choose whichever of "possible" or "likely" is the fairer disclosure in the circumstances. The last sentence in this paragraph may not be required if the entity has adequate internal resources to fund the project itself.

¹⁴ This paragraph may not be required or appropriate if the entity is not intending to pursue these alternative 'value realisation' strategies.

¹⁵ Compare Section 4 of Table 1 to the JORC Code.

To avoid misleading investors, a report about the results of a scoping study should also disclose the margin of error allowed for in the study or, if a statement of the relative accuracy and confidence level is not possible, a qualitative discussion of the uncertainties should be provided in its place.¹⁶

If an entity reports the results of a scoping study without publishing the full study, ASX may call for a copy of the full study under Listing Rule 18.7¹⁷ to satisfy itself that the report is a fair and balanced summary of the study and otherwise complies with the Listing Rules. If ASX forms the view that the summary does not comply with the Listing Rules, ASX may require the entity either to publically retract the report or to make a corrective announcement fixing the deficiencies. ASX may also require the entity to publish the full study to the market (if necessary, with any non-compliant material redacted) if ASX considers that is necessary for an informed market.

6. Do not report the results of a scoping study in a headline statement

When you report the results of a scoping study (whether on a stand-alone basis or as an accompaniment to the full study), you should not include any production target or forecast financial information (such as an NPV, IRR or payback period) based on a production target as a 'headline statement' in the report. This is because the headline may be misleading without the contextual information and associated cautionary statements.

7. Report the results of a scoping study as a realistic range of figures rounded to an appropriate number of significant figures, not as single precise figure, and use terms such as 'approximately' to emphasise the imprecise nature of the study

Reporting the results of a scoping study as a single specific figure may mislead investors by conveying a degree of accuracy, rigour or certainty that is simply inappropriate for such a low-level technical and economic assessment.

You should report the results of a scoping study as a realistic range rather than as a single specific and precise figure. You should also reflect the relative uncertainty of the results by rounding off to appropriately significant figures, and qualify the results with terms such as 'approximately' to emphasise the imprecise nature of the study. The results should always be referred to as estimates and not as calculations.¹⁸

8. Do not report the results of scoping studies as a value 'per share' unless there are reasonable grounds for doing so

Expressing the results of a scoping study as a value 'per share' (even if given as a range rather than a single specific figure) suggests that existing shareholders will capture that value. This could be misleading if additional funding is required to achieve the results outlined in the scoping study and the additional funding is likely to be on terms that are dilutive to existing shareholders.

You should only report the results of a scoping study as a value 'per share' where you have reasonable grounds for doing so. Given the imprecise nature of a scoping study, it is likely to be a rare case where you would have reasonable grounds to do this.

9. Do not use non-JORC Code terminology

ASX has observed an increase in the use of non-JORC Code terminology in scoping studies and announcements about scoping studies. This includes, in particular, the use of "mining inventory" or similar terms to describe what should otherwise be referred to as mineral resources or ore reserves.

You must use the correct JORC Code terminology in a scoping study, or summary of a scoping study, that is published to the market.¹⁹ It is not acceptable to substitute a non-JORC Code term when referring to estimates of mineral resources or ore reserves.

¹⁶ Compare the guidelines in clause 25 of the JORC Code applicable to resources.

¹⁷ Under Listing Rule 18.7, ASX may submit, or require the entity to submit, any information given to ASX to the scrutiny of an expert selected by ASX. The entity must pay for the expert.

¹⁸ Again, compare the guidelines in clause 25 of the JORC Code applicable to resources.

¹⁹ Listing Rule 5.6.

Listing Rule requirements

A scoping study will often include as one of its results either:

- a projection or forecast of the amount of minerals to be extracted from a particular mining tenement or tenements for a period that extends past the current year and the forthcoming year – in other words a ‘production target’, as defined in the Listing Rules;²⁰ or
- forecast financial information (such as an NPV, IRR or payback period) that is based on a production target.

If it does, any announcement of the results of the scoping study must comply with the general requirements applicable to the initial disclosure²¹ of production targets or forecast financial information based on production targets in Listing Rule 5.16 and 5.17. This includes:

- disclosing all material assumptions on which they are based;²²
- including a statement that the estimated ore reserves and/or mineral resources underpinning them have been prepared by a competent person or persons in accordance with the requirements in the JORC Code;²³
- disclosing the relevant proportions of:
 - probable ore reserves and proved ore reserves;²⁴
 - inferred mineral resources, indicated mineral resources and measured mineral resources;
 - an exploration target; and
 - qualifying foreign estimates,underpinning the production target;²⁵
- if a proportion of the production target is based on inferred mineral resources, including a cautionary statement proximate to, and with equal prominence as, the reported production target, stating that:

“There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.”²⁶
- if a proportion of the production target is based on an exploration target, disclosing a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting a production target in

²⁰ See Listing Rule 19.12.

²¹ As mentioned in note 4 above, under Listing Rule 5.19, an entity that has issued a public report under Listing Rules 5.16 or 5.17 is not required to include the information set out in those rules in any subsequent public report in relation to a production target, or forecast financial information derived from a production target, provided all of the conditions set out in rule 5.19 are satisfied.

²² Listing Rules 5.16.1 and 5.17.1. If the economic assumptions are commercially sensitive to the mining entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported.

A public report by an entity containing a production target, or forecast financial information derived from a production target, relating to an operating mine(s) and that is underpinned: (a) solely by ore reserves; (b) solely by a combination of ore reserves and measured mineral resources; or (c) solely by a combination of (i) ore reserves and (ii) measured mineral resources and/or indicated mineral resources, is not required to comply with Listing Rules 5.16.1 or 5.17.1 provided, in the case of (c), that the indicated mineral resources are not the determining factor in the project’s viability (Listing Rule 5.18).

²³ Listing Rule 5.16.2.

²⁴ This is likely to be nil since, by definition, a scoping study is an order of magnitude technical and economic study of the potential viability of *mineral resources*.

²⁵ Listing Rule 5.16.3.

²⁶ Listing Rule 5.16.4.

that context, and including a cautionary statement proximate to, and with equal prominence as, the reported production target stating that:

“The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realised.”²⁷

- if the production target is based solely on inferred mineral resources, disclosing:
 - a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting a production target based solely on inferred mineral resources;²⁸
 - the level of confidence with which the inferred mineral resources are estimated and the basis for that level of confidence;
 - a technical report of a sufficient level of confidence to support the production target that is prepared by, or under the supervision of, a named independent competent person or persons and includes the information referred to in Listing Rules 5.22(b) and (c);²⁹ and
 - a cautionary statement proximate to, and with equal prominence as, the reported production target, stating that:

“There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The stated production target is based on the entity’s current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.”³⁰

- if a proportion of the production target is based on qualifying foreign estimates that have not been verified and reported as mineral resources or ore reserves in accordance with the JORC Code after 3 years from the date the qualifying foreign estimates were initially reported, including the statement and explanation referred to in Listing Rule 5.14.2;³¹ and
- in the case of forecast financial information, specifically disclosing the production target from which the forecast financial information is derived (including all of the information contained in Listing Rule 5.16 and referred to above)³² and, if a significant proportion of the production target is based on an exploration target, the implications for the forecast financial information of not including the exploration target in the production target.³³

A listed entity is not permitted to publish a scoping study or the results of a scoping study containing or referring to a production target that is based:

²⁷ Listing Rule 5.16.5.

²⁸ As mentioned in Guidance Note 31, ASX considers that it would only be in exceptional circumstances that an entity might form the view that it has reasonable grounds for a production target, or a financial forecast derived from a production target, that is based solely on inferred mineral resources.

²⁹ The note to Listing Rule 5.16.6 acknowledges that while the rule requires the technical report to be prepared by, or under the supervision of, an independent competent person, the inferred mineral resources underlying the production target must be prepared by, or under the supervision of, a competent person or persons, but are not required to be prepared by, or under the supervision of, an independent competent person or persons.

³⁰ Listing Rule 5.16.6.

³¹ Listing Rule 5.16.7. The proximate cautionary statement referred to in Listing Rule 5.12.9 will also be required and should be provided together with the statement and explanation referred to above.

³² Listing Rule 5.17.2.

³³ Listing Rule 5.17.3.

- solely on an exploration target or solely on a combination of inferred mineral resources and an exploration target; or
- solely or partly on historical estimates or foreign estimates (other than qualifying foreign estimates) of mineralisation.³⁴

JORC Code requirements

Clause 38 of the JORC Code requires an **appropriate** cautionary statement to be included in the same paragraph as, or immediately following, the disclosure of a scoping study.

Clause 38 includes a short sample cautionary statement³⁵ but, as mentioned previously, in ASX's view that cautionary statement in many cases will need to be augmented to reflect the surrounding facts and circumstances and to address some of the other issues dealt with in this guidance.

A more complete sample cautionary statement for a scoping study is set out under '**4 Include the required cautionary statements**' above.

Corporations Act and ASIC Act requirements for forward-looking statements

As noted in ASX FAQ 23:

Production Targets and forecast financial information derived from them are statements about future matters. ... [The Corporations Act and ASIC Act]³⁶ require statements as to future matters to be based on reasonable grounds or else they are taken to be misleading. The test for whether reasonable grounds exist is an objective one.

The publication of a Production Target or forecast financial information derived from a Production Target for a project carries with it an implication that the publisher believes that the project will be economically viable at some point in the future and that the target or forecast is achievable. The publisher must have reasonable grounds for that belief as of the date of publishing the target or forecast. If they do not, then they may breach various provisions of the law³⁷ ... They may also be liable to compensate anyone who suffers loss or damage as a result³⁸ ...

ASX Guidance Note 31 recommends, therefore, that an appropriate level of due diligence needs to be applied to the preparation of a Production Target or forecast financial information derived from a Production Target. The underlying figures and assumptions should be carefully vetted and signed off at a suitably senior level before they are released.

Further guidance on these and other Corporations Act and ASIC Act requirements can be found in IS 214.

You should also have regard to the following cautionary guidance in ASX FAQ 25:

Where the entity does not have a reasonable basis for a Production Target or forecast financial information derived from a Production Target, this information must not be released to the market.

³⁴ Listing Rule 5.15.

³⁵ The sample cautionary statement suggested in clause 38 of the JORC Code reads:

The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

³⁶ See sections 670A(2), 728(2) and 769C of the Corporations Act 2001 (Cth) (referred to in this guidance as the "Corporations Act") and section 12BB of the Australian Securities and Investments Commission Act 2001 (Cth) (referred to in this guidance as the "ASIC Act").

³⁷ See, for example, sections 670A(1), 728(1), 1041H and 1309 of the Corporations Act and section 12DA of the ASIC Act.

³⁸ See, for example, sections 670B, 729, 1041I, 1317HA and 1325(1) of the Corporations Act and section 12GF of the ASIC Act.

Before publishing a [scoping study] that contains a Production Target or forecast financial information derived from it, an entity should therefore satisfy itself that there is a reasonable basis for the Production Target or forecast financial information derived from a Production Target.

If the entity is concerned that there may not be a reasonable basis for the Production Target or forecast financial information included in a [scoping study] but it wishes nonetheless to publish the general outcome of the [scoping study], then it can publish a summary of the preliminary study that does not mention the Production Target or forecast financial information.

The entity can still say, if this is the case, that the results of the [scoping study] were positive and that the results justify the entity to commit to the next stage of exploration and development

What are reasonable grounds for a forward-looking statement?

ASX FAQ 24 sets out the following guidance on what are reasonable grounds for a production target or forecast financial information derived from a production target that is highly relevant to the publication of scoping studies:

It is the responsibility of the entity publishing a Production Target or forecast financial information derived from a Production Target to ensure that it has reasonable grounds for it. ...

Even where disclosure of a Production Target or forecast financial information derived from a Production Target is made in accordance with these Listing Rules, ... it must still be based on reasonable grounds existing as at the date of the disclosure or else it will be taken to be misleading under the Corporations Act.

Reasonable grounds extend not only to the mineralisation underpinning the Production Target or forecast financial information but also to any assumptions regarding the 'Modifying Factors' in Table 1 of the JORC Code.

What constitutes 'reasonable grounds' for a Production Target or forecast financial information derived from a Production Target must be judged according to the facts and circumstances of each case and the requirements of the Corporations Act. The following general observations may, however, be helpful:

- *Probable or Proved Ore Reserves (properly declared) will generally provide a reasonable basis for a Production Target or forecast financial information derived from a Production Target, given the level of geological knowledge and confidence and the consideration of the Modifying Factors they involve.*
- *Indicated or Measured Mineral Resources (properly declared) may provide a reasonable basis for a Production Target or forecast financial information derived from a Production Target provided the entity has given sufficient consideration to the Modifying Factors in order to have reasonable grounds and it clearly outlines the material assumptions it has made in this regard.*
- *Where an entity has Ore Reserves or Indicated or Measured Mineral Resources, it may have reasonable grounds for including some level of Inferred Mineral Resources or an Exploration Target in a Production Target or forecast financial information derived from a Production Target, subject to the following caveat in section 8.5 of ASX Guidance Note 31:*

“Where a mining entity is reporting a production target that is based on a portion of inferred mineral resources and/or an exploration target in addition to ore reserves and/or measured and indicated mineral resources, the reporting entity must be satisfied that the respective proportions of inferred mineral resources and the exploration target are not the determining factors in project viability. In addition, the inferred mineral resources and exploration target should not feature as a significant proportion early in the mine plan.”

The proportion of Inferred Mineral Resources and Exploration Targets that may be added to the end of a mine plan depends on the maturity of the project. For example, a greater proportion may be justified for a producing mine with a history of converting Exploration Targets and Mineral

Resources into Ore Reserves, than an exploration entity that has Indicated Mineral Resources as the highest confidence Mineral Resource.

- *A Production Target or forecast financial information derived from a Production Target may only be based on an Inferred Mineral Resource alone if the entity complies with Listing Rule 5.16.6 and section 8.7 of ASX Guidance Note 31.*

The general observations above assume, of course, that the relevant Ore Reserve, Mineral Resource or Exploration Target is a genuine one that would withstand scrutiny by a Competent Person's peers (see clause 11 of the JORC Code).

Disclosure of material assumptions

As mentioned previously, where a scoping study includes a production target or forecast financial information based on a production target, it must include all material assumptions on which the target or forecast is based.

IS 214 includes the following guidance on the disclosure of assumptions about the modifying factors in the JORC Code:

A forward looking statement based on mineral resources must disclose the extent to which the modifying factors have been analysed and progressed and, where they have not been fully analysed and progressed, any material assumptions that have been made about the modifying factors. For the forward looking statement not to be misleading, there must be objectively reasonable grounds for those assumptions.

Section 4 of Table 1 of the JORC Code provides a useful framework that you can use to disclose this information. ...

IS 214 also includes the following guidance on the disclosure of assumptions about the timeframe for development and production and the availability of funding:

Any assumptions made about scheduling of development and production and about the availability of project finance that underpin a production target or forecast financial information or income-based valuation based on a production target are material assumptions that must be disclosed under ASX Listing Rules 5.16.1 and 5.17.1.

For the production target or forecast financial information or income-based valuation not to be misleading, there must be objectively reasonable grounds for those assumptions. ...

Entities reporting the results of a scoping study need to be careful that they do not mislead investors about their financial capacity to deliver those results.

ASX acknowledges that resources entities at early stages of the project assessment process will often not be in a position to make definitive statements about the availability of any funding needed for the development of a mining project. An entity is required to have reasonable grounds for the assumptions it makes in relation to the future availability of funding, not to make definitive statements.

ASX also acknowledges that resources entities often have business plans that involve the realisation, or partial realisation, of potential project value prior to actual project development. Examples include a full or partial sale of the project pre-development or the introduction of a joint venture partner to fund project development in return for earning project equity.

If funding (debt or equity) will be required to achieve the outcomes of a scoping study then that fact and an estimation of the amount needed should be clearly disclosed. If the entity does not have reasonable grounds for believing that it will be able to raise all of the necessary funding on its own, then it must explain the range of options available to it to address that issue and it must have reasonable grounds for believing that those options should in fact be available to it.

It will also generally be appropriate to warn readers that it is possible or likely (as the case may be) that the required funding may only be available on terms that may be dilutive to or otherwise affect the value of the entity's existing shares.

ASX's approach if material assumptions are not disclosed

Given the regulatory requirements mentioned above and ASIC's guidance in IS 214, ASX expects that any initial announcement about a scoping study or other production target or forecast financial information based on a production target that is not largely based on ore reserves to disclose clearly:

- the extent to which the modifying factors have been analysed and progressed and, where they have not been fully analysed and progressed, any material assumptions that have been made about the modifying factors;
- any assumptions made about the timeframe for development and production and about the availability of funding;³⁹ and
- the sequencing of various categories of resources and reserves in the production schedule.

ASX also expects the basis for such assumptions to be disclosed (for example, are the assumptions about opex, capex and pricing based on a competent person's or other expert's opinion or made on some other basis?).

ASX recommends that these disclosures are given reasonable prominence in the announcement (for example, in a separate section headed "Assumptions").

If an entity releases an announcement on the ASX Markets Announcements Platform that does not meet the expectations set out above, it may receive from ASX a request under Listing Rule 18.7 asking it to explain who approved the announcement, what assumptions they made as to the matters set out above, whether in their opinion those assumptions are reasonable, and the factors to which they had regard in forming that opinion.

If an entity requests a trading halt pending an announcement and the announcement it lodges to lift the trading halt does not meet the expectations set out above, this will likely delay the release of the announcement and the lifting of the trading halt. Depending on the length of the delay, this may require trading in the entity's securities to be suspended (noting that a trading halt can only last a maximum of 2 trading days).

ASX may refer an announcement to ASIC for its view on whether it complies with the law and will refer any suspected significant contravention of the disclosure requirements in the Listing Rules or the Corporations Act to ASIC for consideration of regulatory action (as ASX is required to do under that Act).

Disclosure checklist

Attached to this guidance is a checklist ASX has developed to assist listed entities disclosing the results of a scoping study to verify that they have met all applicable Listing Rule requirements.

If ASX has concerns that an announcement by a listed entity about the results of a scoping study may not meet all applicable Listing Rule requirements, ASX may require the entity⁴⁰ to provide it with a completed checklist.

For further guidance

Listed entities that have any queries about this guidance should direct them to their listings adviser at ASX.

³⁹ Any other material assumptions that underpin a production target or forecast financial information derived from a production target must also be disclosed under Listing Rules 5.16.1 and 5.17.1. Even where disclosure of a production target or forecast financial information derived from a production target is made in accordance with the Listing Rules, it must still be based on reasonable grounds existing as at the date of the disclosure or else it will be taken to be misleading under the Corporations Act.

⁴⁰ Pursuant to Listing Rule 18.7.

Annexure: ASX Scoping Study Disclosure Checklist

Name of entity

ABN/ARBN/ARSN

A reference in this Checklist to JORC means the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Resources - 2012 Edition, a copy of which is included in Annexure 5A of the Listing Rules. Terms used in this Annexure which are defined in the Listing Rules (including, without limitation, 'exploration target', 'exploration results', 'mineral resource', 'ore reserve' and 'competent person') have the same meaning as in the Listing Rules.

JORC clause 38 defines a "scoping study" as an order of magnitude technical and economic study of the potential viability of mineral resources. It includes appropriate assessments of realistically assumed modifying factors together with any other relevant operational factors that are necessary to demonstrate at the time of reporting that progress to a pre-feasibility study can be reasonably justified.

Nº Item

Location/Confirmation

General requirements

1. Please enter "Confirmed" in the column to the right to indicate that the directors of the entity believe they have reasonable grounds for any forward-looking statement included in the scoping study (ASX Scoping Study Guideline 2)
2. Please enter "Confirmed" in the column to the right to indicate that the directors of the entity believe the Announcement is a fair and balanced summary of the scoping study (ASX Scoping Study Guideline 5)
3. Where in the Announcement is there a summary of the results of the sensitivity analysis undertaken in the scoping study (ASX Scoping Study Guideline 5)?
4. Where in the Announcement does it disclose the margin of error allowed for in the scoping study or, if a statement of the relative accuracy and confidence level is not possible, a qualitative discussion of the uncertainties (ASX Scoping Study Guideline 5)?
5. Please enter "Confirmed" in the column to the right to indicate that the Announcement does not include any production target or forecast financial information (such as an NPV, IRR or payback period) based on a production target as a 'headline statement' in the report (ASX Scoping Study Guideline 6)
6. Please enter "Confirmed" in the column to the right to indicate that the results of the scoping study have been expressed as a realistic range of figures rounded to an appropriate number of significant figures, not as a single specific figure, and that terms such as 'approximately' have been used to emphasise the imprecise nature of the study (ASX Scoping Study Guideline 7)
7. Please enter "Confirmed" in the column to the right to indicate that the results of a scoping study have not been reported as a value per share unless there are reasonable grounds for doing so (ASX Scoping Study Guideline 8)

N° Item	Location/Confirmation
8. Please enter “Confirmed” in the column to the right to indicate that the Announcement uses the correct JORC Code terminology (ASX Scoping Study Guideline 9)	

Listing Rule requirements for production targets or financial information derived from production targets

Complete this section if the Announcement includes any reference to a production target or financial information derived from a production target (such as forecast revenues, forecast costs of production, forecast capex, a net present value, internal rate of return or payback period).

9. Where in the Announcement does it disclose the material assumptions on which the production target is based (Listing Rule 5.16.1)?

Specifically, where in the Announcement does it disclose the material assumptions about the ‘modifying factors’ in the JORC Code (ASX Scoping Study Guideline 3)?

Specifically, where in the Announcement does it disclose the material assumptions about the timeframe for development and production (ASX Scoping Study Guideline 3)?

Specifically, where in the Announcement does it disclose the material assumptions about the availability of project finance (ASX Scoping Study Guideline 3)?

Specifically, where in the Announcement does it disclose the material assumptions about the sequencing of various categories of resources and reserves in the production schedule (ASX Scoping Study Guideline 3)?

10. Where in the Announcement does it state that the reserves or resources underpinning the production target have been prepared by a competent person in accordance with the JORC Code (Listing Rule 5.16.2)?¹

11. Where in the Announcement does it state the relevant proportions of ore reserves, mineral resources, exploration target and qualifying foreign estimates underpinning the production target (Listing Rule 5.16.3)?

12. Please enter “Confirmed” in the column to the right to indicate that the ore reserves and mineral resources relied on in the scoping study have been publically reported (as per Listing Rules 5.8 and 5.9) and state when and when they were reported for the first time.

13. Is a proportion of the production target based on an inferred mineral resource?

If so, please indicate where in the Announcement the required cautionary statement has been included stating that:²

“There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised” (Listing Rule 5.16.4)?

¹ Note that disclosing a production target that is based solely on an exploration target or solely on a combination of inferred mineral resources and an exploration target is prohibited (Listing Rule 15.5(a)), as is disclosing a production target based solely or partly on historical estimates or foreign estimates (other than qualifying foreign estimates) of mineralisation (Listing Rule 15.5(b)). A production target that is based solely on an inferred mineral resource must comply with Listing Rule 5.16.6.

² Note that the cautionary statement must be proximate to, and have equal prominence as, the reported production target.

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14. Is a proportion of the production target based on an exploration target?	
<p>If so, please enter “Confirmed” in the column to the right to indicate that the exploration target has been publically reported (as per JORC clause 17) and state when and when it was reported for the first time.</p>	
<p>If so, where in the Announcement does it include a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting the production target in that context (Listing Rule 5.16.5 and section 8.6 of Guidance Note 31 <i>Reporting on Mining Activities</i>)?</p>	
<p>Please also indicate where in the Announcement the required cautionary statement has been included stating that:³</p> <p><i>“The potential quantity and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource and there is no certainty that further exploration work will result in the determination of mineral resources or that the production target itself will be realised.”</i> (Listing Rule 5.16.5 and section 8 of Guidance Note 31 <i>Reporting on Mining Activities</i>)?</p>	
15. Is the Production Target based solely on an inferred mineral resource?	
<p><i>If so, where in the Announcement does it include a statement of the factors that lead the entity to believe that it has a reasonable basis for reporting the production target based solely on inferred mineral resources (Listing Rule 5.16.6 and section 8.7 of Guidance Note 31 <i>Reporting on Mining Activities</i>)?</i>⁴</p>	
<p>Please indicate where in the Announcement it states the level of confidence with which the inferred mineral resources are estimated and the basis for that level of confidence (Listing Rule 5.16.6)</p>	
<p>Please also indicate where in the Announcement the required cautionary statement has been included stating that:⁵</p> <p><i>“There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. The stated production target is based on the company’s current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met.”</i> (Listing Rule 5.16.6)</p>	
<p>And provide a copy of the technical report required under Listing Rule 5.16.6 to support the production target with a sufficient level of confidence and which has been prepared by, or under the supervision of, a named independent competent person or persons and includes the information referred to in Listing Rules 5.22(b) and (c)</p>	

³ Note again that the cautionary statement must be proximate to, and have equal prominence as, the reported production target.

⁴ Note the statement in Guidance Note 31 that: “ASX considers that it is only in exceptional circumstances that an entity might form the view that it has reasonable grounds for a production target, or a financial forecast derived from a production target, when that production target, or forecast financial information, is based solely on inferred mineral resources.”

⁵ Note again that the cautionary statement must be proximate to, and have equal prominence as, the reported production target.

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16. Is the Production Target based on a portion of inferred mineral resources and/or an exploration target in addition to ore reserves and/or measured and indicated mineral resources?	
If so, please enter “Confirmed” in the column to the right to indicate that the entity is satisfied that the respective proportions of inferred mineral resources and the exploration target are not the determining factors in project viability (section 8.5 of Guidance Note 31 <i>Reporting on Mining Activities</i>)	
Please also enter “Confirmed” in the column to the right to indicate that the inferred mineral resources and exploration target do not feature as a significant proportion early in the mine plan (section 8.5 of Guidance Note 31 <i>Reporting on Mining Activities</i>)	
17. Is a proportion of the production target based on qualifying foreign estimates that have not been verified and reported as mineral resources or ore reserves in accordance with the JORC Code after 3 years from the date the qualifying foreign estimates were initially reported?	
If so, where in the Announcement is the statement and explanation referred to in Listing Rule 5.14.2 (Listing Rule 5.16.7)?	
18. Does the Announcement include forecast financial information derived from a production target relating to: <ul style="list-style-type: none"> • the mineral resources and ore reserves holdings of the entity (an entity level production target); or • a material mining project of the entity (or two or more mining projects which together are material to the entity)? 	
If so, where in the Announcement does it include all material assumptions on which the forecast financial information is based (Listing Rule 5.17.1)? ⁶	
Where in the Announcement does it state the production target from which the forecast financial information is derived, including all the information contained in Listing Rule 5.16 (Listing Rule 5.17.2)	
If a significant proportion of the production target is based on an exploration target, where in the Announcement does it state the implications for the forecast financial information of not including the exploration target in the production target (Listing Rule 5.17.3)	

JORC requirements for scoping studies⁷

19. Is the scoping study partially supported by an inferred mineral resource and/or exploration target?	
If so, where in the Announcement does it state both the proportion and relative sequencing of the inferred mineral resource and/or exploration target (JORC clause 38)?	

⁶ If the economic assumptions are commercially sensitive to the entity, an explanation of the methodology used to determine the assumptions rather than the actual figure can be reported. Note, however, that economic assumptions may not be commercially sensitive. An entity that considers that certain information is commercially sensitive should refer to section 8.6 of Guidance Note 31 on the steps ASX expects it to take in these circumstances.

⁷ JORC clause 38 defines a “scoping study” as an order of magnitude technical and economic study of the potential viability of mineral resources. It includes appropriate assessments of realistically assumed modifying factors together with any other relevant operational factors that are necessary to demonstrate at the time of reporting that progress to a pre-feasibility study can be reasonably justified.

Nº Item

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20. Where in the Announcement is the cautionary statement required under clause 38 of the JORC Code about the scoping study?⁸

21. Has the sample cautionary statement suggested in clause 38 of the JORC Code been augmented to reflect the surrounding facts and circumstances and to address the other issues dealt with in ASX's scoping study guidance (ASX Scoping Study Guideline 4)?

⁸ Note that the cautionary statement must be in the same paragraph as, or immediately following, the disclosure of the scoping study.