

Commentary on the June 2025 Proposed Changes; Form 43-101 F1 and Companion Policy 43-101CP Part B

The Form and Companion Policy need to be read in tandem to understand the content that should be provided in a compliant technical report. This document provides the following:

- In table format, a direct comparison between Form content and Companion Policy guidance
- A blackline comparison back to the 2011 edition where the content is in the 2011 edition;
- MTS commentary on the changes.

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Instructions

Proposed Modernization Draft

Form	Companion Policy
(1) A technical report is a summary document of all relevant scientific and technical information concerning mineral exploration, development, and production activities on a mineral project that is material to an issuer. This Form sets out the requirements for the preparation and content of a technical report.	General Instructions: A technical report is a summary document of relevant scientific and technical information concerning mineral exploration, development and production activities on a mineral project that is material to an issuer.
(2) Do not incorporate by reference any previous disclosure.	
(3) A term used in this Form that is defined or interpreted in the Instrument has that definition or interpretation.	
(4) Be concise and include sufficient context and cautionary language to allow a reasonable person to understand the nature, importance and limitations of the data, interpretations and conclusions summarized in the technical report.	A technical report is intended to offer clear and consistent information that may be used to inform investment decisions. The intended audience is the investing public and their advisors who, in most cases, will not be mining experts. Authors should keep the intended audience in mind. Authors should also consider that the contents of a technical report are a snapshot in time of a mineral project's status.
(5) Include all headings and information specified under Items 1 to 12 and 23 to 27 of this Form. For all other headings and Items in this Form, include the headings and information that are relevant to the mineral project. Disclosure included under one Item is not required to be repeated under another Item.	<p>While the Form mandates the headings and general format of the technical report, the qualified person preparing the technical report is responsible for determining the level of detail required under each item based on the qualified person's assessment of the relevance and significance of the information.</p> <p>As noted in General Guidance (7) of this Companion Policy, the Instrument does not require a qualified person to follow CIM practice guidelines. However, we think that a qualified person, acting in compliance with the professional standards of competence and ethics established by their professional association, will use procedures and methodologies that are consistent with industry standard practices, as established by CIM or similar organizations in other jurisdictions.</p> <p>All Headings Under The Form: For mineral projects without information to disclose under any item, rather than providing disclosure that an item is "not applicable" or "n/a", the technical report should explain that there is no relevant information under those headings. For example:</p> <ul style="list-style-type: none"> - if metallurgical testing was not conducted at the effective date, the technical report should indicate that no metallurgical test work has been completed rather than "not applicable"; - if a mineral project does not have a mineral resource estimate, the technical report should indicate that there are

Form	Companion Policy
	no current mineral resources on the mineral project under Item 14. We consider such information to be relevant to the mineral project, as such, it is not sufficient to only indicate “Not Applicable” under a heading.
(6) Do not include appendices with excessive information.	Appendices: It is not necessary to include appendices with excessive information, such as assay certificates or extensive geological, geochemical, geophysical, other survey results or raw data. The limited use of an appendix may be appropriate in certain circumstances, for example an extensive list of land tenures.
(7) Guidance on how to prepare the technical report can be found in the Companion Policy 43-101CP.	

Blackline Proposed Modernization Draft Form to 2011 Edition Form

- (1) ~~The objective of the~~ technical report is ~~to provide~~ a summary document of ~~material~~ all relevant scientific and technical information concerning mineral exploration, development, and production activities on a mineral ~~property~~ project that is material to an issuer. This Form sets out the requirements for the preparation and content of a technical report.
- (2) ~~Terms~~ Do not incorporate by reference any previous disclosure.
- (2) ~~—A term~~ used in this Form that ~~are~~ is defined or interpreted in ~~National~~ the Instrument
- (3) ~~43-101 Standards of Disclosure for Mineral Projects (the “Instrument”)~~ will ~~have~~ has that definition or interpretation. ~~In addition, a general definition instrument has been adopted as National Instrument 14-101 Definitions that contains definitions of certain terms used in more than one national instrument. Readers of this Form should review both these national instruments for defined terms.~~

- ~~(3)(4) The qualified person preparing the technical report should keep in mind that the intended audience is the investing public and their advisors who, in most cases, will not be mining experts. Therefore, to the extent possible, technical reports should be simplified and understandable to a reasonable investor. However, the technical report shouldBe concise and include sufficient context and cautionary language to allow a reasonable investorperson to understand the nature, importance, and limitations of the data, interpretations and conclusions summarized in the technical report.~~
- ~~(4)(5) The qualified person preparing the technical report must useInclude all of the headings of Items 1 to 14 and 23 to 27 in this Form and provide theand information specified under each heading.Items 1 to 12 and 23 to 27 of this Form. For advanced properties, the qualified person must also use theall other headings ofand Items 15 to 22 and in this Form, include the headings and information required under each of these headings. The qualified person may create sub-headings.that are relevant to the mineral project. Disclosure included under one headingItem is not required to be repeated under another headingItem.~~
- ~~(5) The qualified person preparing the technical report may refer to information in a technical report previously filed by the issuer for the subject property if the information is still current and the technical report identifies the title, date and author of the previously filed technical report. However, the qualified person must still summarize or quote the referenced information in the current technical report and may not disclaim responsibility for the referenced information. Except as permitted by subsection 4.2 (3) of the Instrument, an issuer may not update or revise a previously filed technical report by filing an addendum.~~
- ~~(6) While the Form mandates the headings and general format of the technical report, the qualified person preparing the technical report is responsible for determining the level of detail required under each Item based on the qualified person's assessment of the relevance and significance of the information.~~

- ~~(7) — The technical report may only contain disclaimers that are in accordance with section 6.4 of the Instrument and Item 3 of this Form.~~
- ~~(8) — Since a technical report is a summary document the inclusion and filing of comprehensive appendices is not generally necessary to comply with the requirements of the Form.~~
- ~~(9) — The Instrument requires certificates and consents of qualified persons, prepared in accordance with sections 8.1 and 8.3 respectively, to be filed at the same time as the technical report. The Instrument does not specifically require the issuer to file the certificate of qualified person as a separate document. It is generally acceptable for the qualified person to include the certificate in the technical report and to use the certificate as the date and signature page.~~
- (7) Do not include appendices with excessive information.
- (8) Guidance on how to prepare the technical report can be found in the Companion Policy 43-101CP.

Comment

Instructions versus Guidance

If it was acceptable to retain the introductory instructions, then why was it considered appropriate to move other instructions from the 2011 edition to the Companion Policy, since those instructions were also labelled as such in that Rule edition? Much of what is provided in the Companion Policy is not guidance, there are numerous additional instructions that should be in the Rule. The separation into two documents, and having to constantly read and re-read the Form content and the Companion Policy guidance, is making it much more difficult for a Qualified Person to meet the requirement of being “able to demonstrate their understanding of standards of disclosure for mineral projects”.

Material/Relevant

The primary materiality filter that was required in the 2011 edition of the Form is removed and replaced with relevant.

A point was made as part of the consultation process that the Canadian regulators initiated in April 2022 (CSA Consultation Paper 43-401 – Consultation on National Instrument 43-101 Standards of Disclosure for Mineral Projects) that consultants are generally not in a position to know what influences an investor in a mining company. The company’s management is in the best position to understand what influences their investors:

- The company management has a solid track record of developing projects;
- The risk profile of the company appeals;
- The commodity is attractive in the current market;

It was a consideration, therefore as to whether it was appropriate for a Qualified Person to be making statements on materiality in disclosures such as a technical report, since that was actually a management purview.

To understand “material”, and why removal was requested, the following definitions were reviewed.

The TSX Policy Section 407 states:

Material information is any information relating to the business and affairs of a company that results in or would reasonably be expected to result in a significant change in the market price or value of any of the company's listed securities.

Material information consists of both material facts and material changes relating to the business and affairs of a listed company.

The Ontario securities legislation defines material facts and material change as:

Material fact: a fact that would reasonably be expected to have a significant effect on the market price or value of the securities;

The Canadian Bar association notes:

“This formulation of the materiality test, called the market impact test, asks whether a fact would be reasonably expected to have a significant effect on the price or value of the security. The market impact test, as the Ontario Superior Court has once held, is “built into” the definition of a material fact”.

The definition of material change for investment fund issuers in NI 81-106, the typical source for the definition, reads:

“(a) a change in the business, operations or affairs of the investment fund that would be considered important by a reasonable investor in determining whether to purchase or continue to hold securities of the investment fund”

(b) a decision to implement a change referred to in paragraph (a) made

(i) by the board of directors of the investment fund or the board of directors of the manager of the investment fund or other persons acting in a similar capacity,

(ii) by senior management of the investment fund who believe that confirmation of the decision by the board of directors or such other persons acting in a similar capacity is probable, or

(iii) by senior management of the manager of the investment fund who believe that confirmation of the decision by the board of directors of the manager or such other persons acting in a similar capacity is probable;

Material change is commonly interpreted to require two levels of assessment:

- Whether a change in the business, operations or capital of the issuer has occurred;
- If there was such a change, whether it could reasonably be expected to have, or have had, a significant impact on the issuer's share price.

As a result, the definition of "material" under most securities laws is reasonably well understood: what would cause an investor to buy, trade, or sell shares. That concept can readily be applied to information provided to an investor as part of public disclosure. It can also be readily applied as a filter on information to be summarized into a technical report.

However, in the Companion Policy, materiality guidance is provided, which contradicts some of the definitions above, including the market impact test:

***Materiality** – An issuer should determine materiality in the context of the issuer's overall business and financial condition considering qualitative and quantitative factors, assessed in respect of the issuer as a whole. In making materiality judgments, an issuer should consider a number of factors that cannot be captured in a simple bright-line standard or test, including the potential effect on both the market price and value of the issuer's securities considering the current market activity. An assessment of materiality depends on the context. Information that is immaterial today could be material tomorrow; an item of information that is immaterial alone could be material if it is aggregated with other items.*

There is no definition that MTS could determine in securities rules for "relevant". In the absence of a term or concept not being defined in a National Instrument or Companion Policy, MTS checked the dictionary definition:

Closely connected, or appropriate to the matter in hand [Concise Oxford Dictionary]

This is very different to the concepts of materiality in the securities rules noted above.

The risk for issuers and Qualified Persons with endeavouring to meet Form instructions and provide compliant disclosure, is that the Proposed Modernization Draft does not provide clarity with respect to either content or instructions when "relevant" is used. For example, is there a similar differentiation for relevant as there is for materiality when information is only relevant at the issuer level versus relevant at the project level? The use of relevant in so many instances introduces significant uncertainty as to what would constitute compliant disclosure to meet the instructions.

Instruction 1 to the Form is in dissonance with the "relevant" instructions throughout the Form and Companion Policy. The Qualified Person cannot simultaneously meet the requirement for a "summary document" and meet "all relevant scientific and technical information". An instruction to summarize should allow the Qualified Person to summarize. However, in many Items, the words "all", and "any" are used as part of instructions and override the relevance consideration; in other Items relevance isn't in the instructions as a consideration. The Qualified Person is

caught in a compliance bind between the two conflicting instructions even before they start to compile the technical report. A clear understanding of the concept of what is “relevant” is needed if the section is not to be flooded with immaterial information because the Qualified Person errs on the side of more is better in the hope of the section not being found to have compliance issues.

There is also a significant risk that legal counsel on review will require levels of detail in the report in those Items that require “all” and “any”, as well as “relevant” and more detail cannot also meet summarization. Investors will be swamped with information that is not material and information that is both relevant and material information will be lost in the noise.

Part (5) requires the Qualified Person to address Item headings and information even when the information is not relevant. *“For all other headings and Items in this Form, include the headings and information that are relevant to the mineral project.”* If something is not relevant to the mineral project, why can’t it be omitted? Why cannot the Qualified Person clearly identify the heading and information as not applicable to that project in that technical report?

Not Relevant/Not Applicable

If the Proposed Modernization Draft Rule can use “as applicable” in many of the Item instructions, why does the Companion Policy tell the Qualified Person that they cannot say something is not applicable in response? It is clear that the CSA staff are seeing a major difference between “not applicable” and “not relevant”, and that difference in understanding of the terms will be applied to determine whether disclosure is compliant or not.

It is strange to make this a guidance point. For a resource-only report, claiming that a Qualified Person stating that Items 15 to 22 are “not applicable” could be considered to be a type of misleading disclosure is a very large step. What then is not misleading about stating something is “not relevant”? That appears to be contingent on an understanding of what is, and is not, relevant. What constitutes the differentiation is not provided to the Qualified Person as a definition of relevant, or as guidance as to how relevant should be interpreted. Certainly, consultation with a dictionary suggests that the two terms are not the same:

“Not applicable” means a question or requirement doesn't apply to the subject at hand;

“Not relevant” means information is unrelated to the topic being discussed.

In the context of the technical report, not applicable is actually the most appropriate wording to be using. It is, in fact, a summary of the applicability of the instruction to the response provided by the Qualified Person.

Mineral Project

Part (1) is an example of where the term mineral property has been replaced with “mineral project” in the Form and Companion Policy.

The CSA staff in numerous presentations had previously made a major distinction between a mineral property and a mineral project, with mineral property equated to the mineral tenure, and a mineral project equated to the activity being undertaken on that mineral tenure.

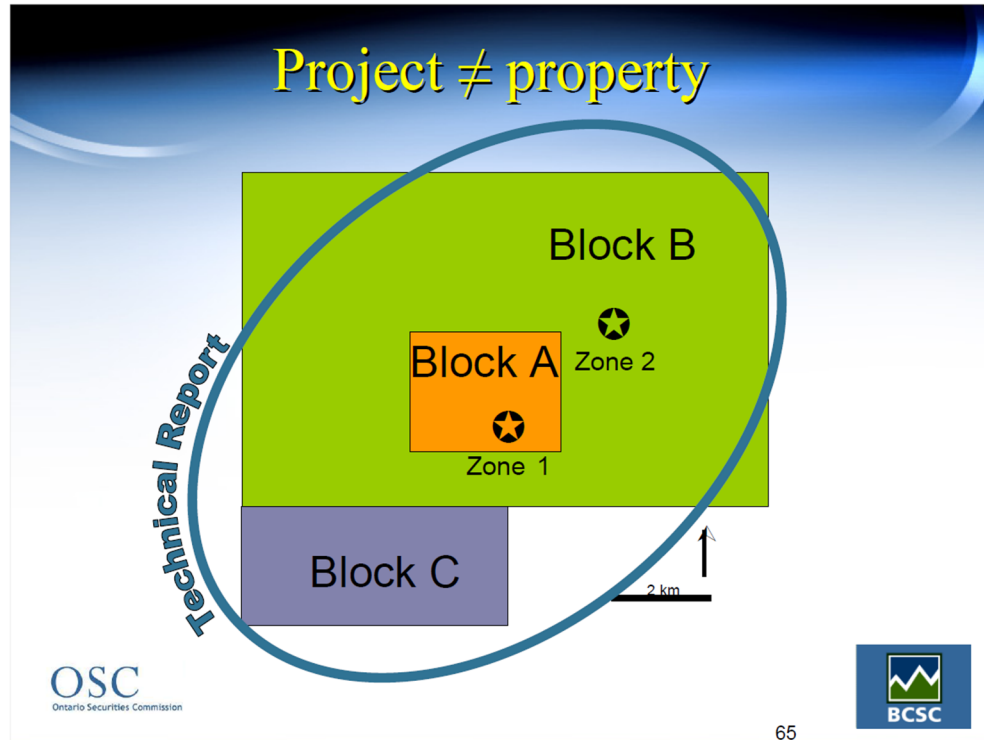


Figure from Holland, R., Waldie, C., Whyte, J., and Bartsch, C., 2012: NI 43-101: What You Need to Know About the New Mining Rules; CSA staff presentation January 20, 2012.

Throughout the Proposed Modernization Draft, the revised definition makes it difficult now to distinguish between the mineral property and the activity being reported on. Issues that arise from this revised definition include:

- Blurs the guidance in the Proposed Modernization Draft Companion Policy where compliant mineral project disclosure is to incorporate all of the mineral tenures that are contiguous or in sufficiently close proximity that the mineralization on those mineral tenures would be treated using common infrastructure;
- Blurs the battery limits for issuers and Qualified Persons as to what must be in the technical report. Historically, for most projects, the technical reports were considered complete at the point of the mine gate or point of loading for sales. The technical reports did not typically cover facilities such as refineries and smelters;
- Too many different ways that the definition can be interpreted;
- Numerous instances where the swap actually does not make sense in the context of the content requirement.

The definition of a “mineral project that is material to an issuer” in (1) requires the Qualified Person to understand the material property definition. In the Companion Policy under General Guidance, is the following statement:

(5) (e) several non-material mineral tenures in an area or region, when taken as a whole, could be a material mineral project of the issuer.

There is no guidance at all as to when this scenario would require a technical report and what the determination of materiality would entail, and what distance would be involved to meet an “area” or “region”. This is a significant new source of uncertainty to place on issuers and Qualified Persons.

Reasonable Investor/Reasonable Person

Part (4) will be problematic for Qualified Persons to address. There is a major difference between a reasonable investor, who is the arbiter of what is material (buy, sell, or trade shares) and the reasonable person who is not necessarily investing in mining stocks. In addition, a reasonable investor is typically knowledgeable about that portion of the mining industry that drives their investment strategy. They can be gold bugs, following gold stocks; investor bugs, following a particular analysts’ predictions; management bugs, following a particular mining industry leader known for exploration and project success; or general investors who like a balanced portfolio with mining stocks. A “reasonable person” is a much lower threshold for the Qualified Person and issuer; the technical report will have to contain significantly more explanation by Qualified Persons on basic concepts, which will affect how much information the Qualified Person can summarize.

Nature and Importance

In instruction (4), what is meant by the word “nature”? What is “importance” in the same instruction? What information is the Qualified Person meant to provide to meet these two words in the instruction? Where is the guidance to explain to the Qualified Person what the CSA staff expect to see to compliantly address this? How does the Qualified Person determine what a reasonable person would or would not understand?

Guidance provided to the Qualified Persons should be necessary, meaningful, and result in sensible outcomes of use to the investor. Guidance should be crafted to be read, not read past.

Clarity and Concision

The onus is placed on the Qualified Persons to provide clear and consistent information. CSA staff should also follow the same requirement for updating the Proposed Modernization Draft. The lack of clarity in many areas results in significant uncertainty for the Qualified Person tasked with being “able to demonstrate their understanding of standards of disclosure for mineral projects” as part of the assessment of being qualified.

Form Headings

The Form doesn’t just mandate the headings and general format, it explicitly requires content that the Qualified Person has to address. There is limited to no flexibility allowed the Qualified Person in many instances in the accompanying Item instructions. There is no flexibility in requirements that include “any”, “all” and “relevant”. How do these instructions fit with “significant information”; since that seems to be different again to relevant information? Does this mean that information that is relevant isn’t necessarily significant? Or that information can be significant but not relevant?

The instruction in (5) appears to be doing away with the allowance for the Qualified Person to provide sub-headings under each Item. It should be clarified that sub-headings can be used.

Author

The Companion Policy states “authors should also consider that the contents of a technical report are a snapshot in time of a mineral project’s status”. In many, but not all cases in the Proposed Modernization Draft, the term “author” has been struck out in favour of Qualified Person. This is an example of where “author” has been retained. In these instances, are the Qualified Person and the issuer to interpret “author” as a direct synonym for “Qualified Person”?

Snapshot in Time

What is the issue or concern that the phrase “snapshot in time” is addressing? What is the expectation of the Qualified Person (assuming author = Qualified Person) when preparing disclosure? If this recognition that the technical report isn’t the place to be providing information that quickly stale dates such as the content requirements the CSA staff are specifying under Item 20 of the Form?

Practice Guidelines

The paragraph in the guidance in the Companion Policy allows Qualified Persons to consult guidelines from organizations that are not the CIM. CIM does not always have deposit-specific guidance or discipline-specific guidance, so looking to other organizations outside CIM makes sense.

However, the devil is in the application: guidelines are not, as the CSA staff are enforcing, rules and extensions to the Rule; they are simply guidance, items to consider are not items that are binding. Using guidance as an extension to the rule is already happening with the AACE International 47R-11 guidance on cost estimation practices for the mining industry, with issuers questioned as to how those guidelines have been used in presenting cost estimates.

Title Page

Proposed Modernization Draft

Form	Companion Policy
<p>Include on the first or front page of the technical report the following:</p> <ul style="list-style-type: none"> (a) the title; (b) the name of the mineral project; (c) the stage of the mineral project; (d) the name of each issuer for which the report has been prepared; (e) the country in which the mineral project is located and its general location within the country; (f) the name and professional designation of each qualified person; (g) the effective date. 	<p>The Form requires issuers to provide the current stage of the mineral project on the first or front page of the technical report. Also, a stage or level of work completed on a mineral project should be clearly identified for the intended audience. Suitable stages include:</p> <ul style="list-style-type: none"> • “early” or “exploration” – meaning without a mineral resource estimate; • “resource” – meaning with a mineral resource estimate but no economic analysis; • “scoping study” – within the meaning of the Instrument; • “pre-feasibility study” – within the meaning of the Instrument; • “feasibility study” – within the meaning of the Instrument; • “life of mine plan” – within the meaning of the Instrument.

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Title Page—

Include a title on the first or front page ~~setting out the title~~ of the technical report, the ~~general location following~~:

- (a) the title;
- (b) the name of the mineral project~~;~~;
- (c) the stage of the mineral project;
- (d) the name of each issuer for which the report has been prepared;
- (e) the country in which the mineral project is located and its general location within the country;
- (f) the name and professional designation of each qualified person~~and~~;
- (g) the effective date~~of the technical report~~.

Comment

Property stages were deleted from the Rule, but are required in the Form. The stages are listed in the Companion Policy, and as with much of the draft wording in the Proposed Modernization Draft Companion Policy, the list is not guidance. These are simply relative terms.

This sends the Qualified Person into a loop: stages are not in the Form, but listed in the Companion Policy, which sends the Qualified Person to the Instrument to find that in fact the definitions are not in the Instrument, they are in the CIM Definition Standards.

It is also simplistic and difficult for a Qualified Person to follow. How does the Qualified Person clearly, and compliantly, categorize projects that are hybrid or multi-stage? This is a real uncertainty for the Qualified Persons and issuers to understand what can be presented.

It is not clear what investor benefit the stage identification brings. Is this for the benefit of the CSA staff when generating filing statistics?

Date and Signature Page

Proposed Modernization Draft

Form	Companion Policy
Include a signature page, at the beginning or end of the technical report, signed in accordance with section 22 of the Instrument. Include on the signature page the effective date of the technical report and the date that the report is signed.	<p>(1) In addition to “effective date” which is a defined term in the Instrument, the following explains the most common dates associated with a technical report:</p> <ul style="list-style-type: none"> • “date of signing” or “signature date” – This is the date that a qualified person completes and signs the technical report; this does not have to be the same date as the effective date; • “filing date” – There is no requirement to include the date on which a technical report is filed on SEDAR+. However, the effective date and signature date should not be after the date on which the document is filed; • “consent date” – This is the date on which the consent of the qualified person is given, which may be after the signature date or effective date, or both, of the relevant technical report.
	(2) If the qualified person includes their certificate in the technical report, it is generally acceptable to use the certificate as the date and signature page.

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Date and Signature Page—~~The technical report must have a~~

Include a signature page, at ~~either~~ the beginning or end of the technical report, signed in accordance with section 5.222 of the Instrument. ~~The~~Include on the signature page the effective date of the technical report and the date ~~of signing must be on the signature page that the report is signed.~~

Comment

Certificates as Date and Signature Page

The issuer and Qualified Persons should not have to go to the Proposed Modernization Draft Companion Policy to find that certificates can be used as date and signature pages. This should be part of the Form instructions.

Other Dates

The provision of other dates is not guidance. These are obviously definitions, and as such, if they are so important as to need a definition, should be part of the Rule.

The information provided in the “date of signing” or “signature date” bullet point in the Companion Policy is not in line with industry practice. Reports are completed prior to the date of signing in most instances to allow peer and legal review. The report completion date and the report signing date are not one and the same, and should not be presented as if they were. The bullet point also does not provide clarity around the use of the Certificate of Qualified Person instead of the date and signature page, an omission that should be rectified.

There is an inconsistency between the guidance on the “filing date” and that provided for the “date of signing” or “signature date”. To match the second bullet point the first should say that the signatory date should be after the effective date or filing date. If this is so important to say, it should be part of the first bullet point.

It is not clear what problem the CSA staff think they are solving with the list of dates, and what clarity they think the Qualified Person should be gaining from providing the various different date types. There is a major risk that legal reviews will now require all of these dates to be in the technical report and on the report cover, which will be a recipe for confusion.

Missed Opportunities

There is a missed opportunity to rationalize the number of times the effective date is required: this is already content expected on the title page. It should not need to be repeated as an instruction for the date and signature page.

Table of Contents

Proposed Modernization Draft

Form	Companion Policy
Provide a table of contents listing the contents of the technical report and all figures and tables.	No guidance provided

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Table of Contents—

Provide a table of contents listing the contents of the technical report, including and all figures and tables.

Comment

It would have been helpful to add that providing a list of appendices in the table of contents is allowed, in the circumstances in which there is an appendix allocation exception.

Illustrations

Proposed Modernization Draft

Form	Companion Policy
<p>Include legible maps, plans and sections, all prepared at scales that distinguish important features. Date each map and include a legend, author or information source, a scale in bar or grid form and an arrow indicating north. Include a location or index map and a compilation map outlining the general geology of the mineral project. Include more detailed maps showing important features described in the technical report, relative to the mineral project boundaries. For greater certainty, include the following important features, as applicable:</p> <ul style="list-style-type: none"> (a) areas of previous exploration, and the location of known mineralization, geochemical or geophysical anomalies, drilling and mineral deposits; (b) the location and surficial outline of mineral resources, mineral reserves and areas for potential access and infrastructure; (c) the location of pit limits, underground developments, plant sites, tailings storage areas, waste disposal areas and all other significant infrastructure features. 	<p>No guidance provided</p>
<p>Item 14(d) also has instructions to provide a “visual representation”.</p> <ul style="list-style-type: none"> (d) a general discussion of the criteria used to classify the mineral resource, the average drill or sample spacing, the continuity of the important zones in the mineralization model and, if applicable, a relevant visual representation; 	<p>14 (4) Visual representations required under Item 14 (d) should clearly show the spatial continuity of the mineral resource, the confidence classifications and the constraining surfaces or shapes.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Illustrations—~~Technical reports must be illustrated by~~

Include legible maps, plans and sections, all prepared at ~~an appropriate scale to~~ scales that distinguish important features. ~~Maps must be dated~~ Date each map and include a legend, author or information source, a scale in bar or grid form, and an arrow indicating north. ~~All technical reports must be accompanied by~~ Include a location or index map and a compilation map outlining the general geology of the property. ~~In addition, all technical reports must include mineral project.~~ Include more detailed maps showing all important features described in the ~~text~~ technical report, relative to the ~~property~~ mineral project boundaries, ~~including but not limited to.~~ For greater certainty, include the following important features, as applicable:

- (a) ~~for exploration projects,~~ areas of previous ~~or historical~~ exploration, and the location of known mineralization, geochemical or geophysical anomalies, drilling, and mineral deposits;
- (b) ~~for advanced properties other than properties under development or in production,~~ the location and surficial outline of mineral resources, mineral reserves and, ~~to the extent known,~~ areas for potential access and infrastructure; ~~and~~
- (c) ~~for properties under development or in production,~~ the location of pit limits ~~or,~~ underground ~~development~~ developments, plant sites, tailings storage areas, waste disposal areas and all other significant infrastructure features.

~~If information is used from other sources in preparing maps, drawings, or diagrams, disclose the source of the information. If adjacent or nearby properties have an important bearing on the potential of the subject property, the location of the properties and any relevant mineralized structures discussed in the report must be shown in relationship to the subject property.~~

*~~**INSTRUCTION:** Summarize and simplify the illustrations so that they are legible and suitable for electronic filing. For ease of reference, consider inserting the illustrations in the text of the report in relative proximity to the text they illustrate.~~*

Comment

For Greater Certainty

In numerous instances, particularly in the Form, the phrase “for greater certainty” has been introduced to content requirements. The phrase appears to be a device to make the sentence it is inserted in sound significant, but generally this is not the case.

The phrase is not helpful, and nor does it do anything for the reader in providing additional clarity for content requirements, or provide more certainty in understanding what must be provided to ensure content provided will be compliant with the instruction.

From the perspective of the Qualified Person preparing a technical report and the issuer for whom the technical report will provide support for much of its disclosure on that material property, it is not clear how they would demonstrate that they have met the criterion of “for greater certainty” to the satisfaction of a Canadian regulator.

How does “for greater certainty” more clearly explain the list of important features to be included in illustrations? What is meant by the “important features” that must have greater certainty? Are they the items listed in (a), (b) and (c)? If so, why not simply make that point with more clarity?

It is not clear that “for greater certainty, include the following important features, as applicable” actually does allow Qualified Persons to not include illustrations that are simply not important to the particular project type and stage being discussed in the technical report. For example, it is unclear what benefit an investor would obtain from provision of an illustration of “geochemical or geophysical anomalies” for a technical report summarizing pre-feasibility or feasibility stage projects or operating mines, since most of these initial anomalies are almost always superseded by drill data in the detailed mining studies, or operating mine data and exposures. In the operating mine context, in addition, often this material is mined away or is no longer relevant as it is covered by infrastructure. Is the Qualified Person expected to explicitly state why a particular type of map is not included for a project even when it is clear that that illustration content requirement isn’t relevant?

On the topic of the numerous instances where “for greater certainty” is used, MTS notes:

- Exploration programs and mining studies are based on imperfect information. Primarily as a function of cost and practicalities of data collection, exploration samples and drill holes used in geological modelling and estimation provide very small samples of mineralization, which have to be extrapolated to the 3D actuality. Mining studies are based on the information available at the time. Each iteration of a mining study refines some aspects of the previous study, but may not necessarily revise all of them: some aspects are very well understood and remain the same from stage to stage. Each study stage is generally based on more data, but not necessarily a change in interpretation.
- An issuer required to include a cashflow that provides “more certainty” is restricted by the Canadian regulator intransigence over accepting multiple evaluations of potential scenarios as being equally valid of presentation to investors. More certainty might well be obtained if the issuer could present all of the alternatives they are considering. But that would still only be certainty that the deposit can, in the issuer’s view, support development, not that any individual scenario is more certain than another.
- How does “for greater certainty” used in the context of the reliance on other expert citations such as the source relied on, date, title and author of the report, opinion, statement or information, as applicable, add anything to the reliability of the information being cited?
- Requiring summarization of information in the technical report into Item 1 does not provide “for greater certainty” if the information that is being summarized has inherent uncertainties that the Qualified Person has already acknowledged in the body of the technical report.

In an attempt to refine what might be meant by the phrase “for greater certainty”, it appears that the general meaning, when used in a legal context, is:

“the state of being completely confident or having no doubt about something”;

and is:

“generally used to emphasize something that has already been stated in order to clarify and ensure that it is understood”.

The phrase in the first meaning is not appropriate when applied to scientific and technical data presented in a technical report. There is no “for greater certainty” that can be implied or should be required when dealing with the summarization of information in the technical report.

The second meaning clearly means that the use is, in the context of technical and scientific information on mineral projects, simply repetition, and extraneous. It does not provide clarity, nor does it contribute to understanding of content requirements by Qualified Persons or issuers.

As already noted, the responsibility is placed on the Qualified Persons to provide clear and consistent information. The same requirement, should be adopted by the CSA staff, this phrase being a good example. This results in significant uncertainty for the Qualified Person tasked with being “able to demonstrate their understanding of standards of disclosure for mineral projects” as part of the assessment of being qualified.

Missed Opportunities

There is a missed opportunity for simplifying the instruction around requirements for “a scale in bar or grid form and an arrow indicating north”. If a grid can work as an alternative to a scale bar, then it can certainly work as an indicator for showing geographic north.

Illustrations not Discussed

Item 14(d) requires a visual representation to accompany “a general discussion of the criteria used to classify the mineral resource, the average drill or sample spacing, and the continuity of the important zones in the mineralization model” “if applicable”. This is an isolated illustration requirement and should have been grouped with the illustrations requirements.

Item 1: Summary

Proposed Modernization Draft Form

Form	Companion Policy
Briefly summarize important information in the technical report, including, for greater certainty, mineral project description and ownership, geology and mineralization, status of exploration, development and operations, mineral resource and mineral reserve estimates and the conclusions and recommendations of each qualified person responsible for preparing or supervising the preparation of all or part of the technical report.	The Information summarized in this item should be consistent with the stage of development of the mineral project, although we do not specifically require every heading in the report to be duplicated in this item. The information summarized by Items 5.4 (2) through 5.4 (14) of Form 51-102F2 <i>Annual Information Form</i> are a suggested framework for the information to be included here.

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 1: — Summary —

Briefly summarize important information in the technical report, including property, for greater certainty, mineral project description and ownership, geology and mineralization, the status of exploration, development and operations, mineral resource and mineral reserve estimates, and the qualified person's conclusions and recommendations of each qualified person responsible for preparing or supervising the preparation of all or part of the technical report.

Comment

Use of NI 51-102F2 Headings

The Proposed Modernization Draft Companion Policy suggests that Item 1 of the technical report provide the information required to meet NI 51-102F2 disclosure.

The recommendation to reproduce the summary of the technical report in the annual information form (AIF) may be in response to poorly-selected, and out-of-context presentation of content from the technical report in the AIF. This may be because the contribution in the AIF is typically written by individuals unfamiliar with scientific and technical information, or how to summarize that information. Companies lean heavily on legal counsel and sometimes investor relations personnel for AIF content. This instruction appears to be aimed at having the Qualified Persons write the AIF scientific and technical information content.

However, what is being said here is that the AIF content should be the summary section of the technical report. This isn't appropriate; the AIF content should be derived from the technical report, including from the summary. Some of the content in NI 51-102F2 disclosure requires more detail than that in the "briefly" summarized summary section of the technical report, other content requires less detail. Some content is not applicable to the technical report at all, for example "the status of exploration, development and operations" requirement in NI 51-102F2.

It should be left to the Qualified Person(s) to decide what sub-headings are appropriate to the technical report, based on the study stage and level of work being reported, together with the complexity of what is being described. Typically, Qualified Persons are very aware of summarization to meet Item 1, and provide only the key findings.

Responsibility

There is a conflict in terminology between the instruction in Item 1 and the Rule requirement when it comes to what the Qualified Person must provide:

Item 1 of Proposed Modernization Draft Form

each qualified person responsible for preparing or supervising the preparation of all or part of the technical report

Proposed Modernization Draft Rule Part 6 Certificates And Consents: Certificate Of Qualified Person

(e) each item of the technical report for which the qualified person is responsible;

Both have to recognized that there will be information for which the Qualified Persons will have to cite sub-parts (sub-sections); they will not be co-responsible for entire Item content. This is particularly true of the summary and interpretation and conclusions sections, but is equally true of the data verification section where each Qualified Person can only talk to their individual verification, and the cost estimation section where numerous discipline areas are co-contributors when reporting the results of major mining studies.

Clarity is required to provide Qualified Persons with a clear understanding of the differences the CSA staff are seeing when using words such as “important” in one context, but “relevant” in another, particularly as neither term comes with guidance as to how the Qualified Person should interpret the instruction.

Conclusions and Recommendations

The requirement for each Qualified Person to individually provide summary content on their conclusions and recommendations is new. The concern here is that a JORC-style “if not why not”-type requirement is being introduced. The Qualified Person cannot be silent on why they don’t have a conclusion or recommendation; they will have to provide an explanation as to why they are not making a conclusion or recommendation.

For Greater Certainty

See comments under Illustrations.

The Proposed Modernization Draft Companion Policy suggests that Item 1 of the technical report provide the information required to meet NI 51-102F2 disclosure:

The Information summarized in this item should be consistent with the stage of development of the mineral project, although we do not specifically require every heading in the report to be duplicated in this item. The information summarized

by Items 5.4 (2) through 5.4 (14) of Form 51-102F2 Annual Information Form are a suggested framework for the information to be included here.

Missed Opportunities

One of the most persistent issues with NI 51-102 disclosure, and a missed opportunity to redress, is the requirement within NI 51-102F2 that requires both the most recently filed technical report on a material property, and the qualified persons, to be named as technical report authors. The unintended consequence of this is that when the AIF is filed as a 40-F with the SEC, each named qualified person must provide a written consent. This is required for *each year* that the particular technical report is cited in the AIF/40-F. A simple fix for what is such a burden on the industry would be to just remove the naming of the qualified persons, and requiring only citation of the name of the technical report and their effective dates. Legal counsel constantly pushes back on a firm being able to be cited as the report author instead of a Qualified Person, so this fix would solve many problems that industry currently has with obtaining the required consents for a 40-F filing.

CSA staff have also taken the stance that Qualified Persons including identification of information that is forward-looking have been using language that equates to a type of disclaimer. Qualified Persons and issuers need to be able to identify the forward-looking information and know how to provide compliant wording around that information so that it is not seen to be a type of disclaimer. This could include ensuring that what is identified is project-specific forward-looking information and appropriate to the type and nature of information such as the mining study stage, and eschewing boiler-plate type language.

Item 2: Introduction

Proposed Modernization Draft

Form	Companion Policy
<p>Include a description of the following:</p> <ul style="list-style-type: none"> (a) each issuer for which the technical report is prepared; (b) the terms of reference for and purpose for which the technical report is prepared; (c) the sources of information and data in the technical report or used in its preparation, with citations if applicable. 	No guidance provided

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Item 2: Introduction~~Item 2: Introduction~~

Include a description of the following:

- (a) ~~the~~each issuer for ~~whom~~which the technical report is prepared;
- (b) ~~the~~ terms of reference for and purpose for which the technical report ~~was~~is prepared;
- (c) the sources of information and data ~~contained~~ in the technical report or used in its preparation, with citations if applicable; ~~and~~.
- ~~(d) — the details of the personal inspection on the property by each qualified person or, if applicable, the reason why a personal inspection has not been completed.~~

Comment

Sources of Information

It has never been clear, including in the 2011 edition, as to the level of detail that the Qualified Person should provide for compliant disclosure to meet (c). Is this the key reports used? Does it also include the assay laboratory reports, metallurgical testwork reports, geotechnical logging data, or the geological model and wireframes?

Missed Opportunities

There is a missed opportunity to have streamlined Item 2. Part (c) is exactly the same requirement as Item 27, only Item 27 requires the references to be provided if cited, and Item 2(c) says only to do so if applicable. There is no need to require references to be provided in multiple places in the report. Part (c) should be removed, such that Item 27 is where the Qualified Person provides the list of references used to compile the technical report, not simply cited within the technical report.

Item 3: Reliance on Other Experts

Proposed Modernization Draft

Form	Companion Policy
<p>Do not rely on a report, opinion or statement of a person or company that is not a qualified person for any part of the technical report other than legal, political, environmental or tax matters. If a qualified person who prepares or supervises the preparation of all or part of a technical report relies on a report, opinion or statement of an expert, or information provided by the issuer, concerning legal, political, environmental or tax matters, identify the following:</p> <ul style="list-style-type: none">(a) the source relied on, including, for greater certainty, the date, title and author of the report, opinion, statement or information, as applicable;(b) the extent to which the qualified person relies on the report, opinion, statement or information;(c) each part of the technical report to which the reliance applies.	<p>Reliance on other experts is limited to specific areas: legal, political, environmental or tax matters. Authors are reminded that they may not rely on third parties for any scientific or technical information included in the technical report.</p>

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Item 3: Reliance on Other Experts—~~A qualified person:~~

~~Do not rely on a report, opinion or statement of a person or company that is not a qualified person for any part of the technical report other than legal, political, environmental or tax matters. If a qualified person who prepares or supervises the preparation of all or part of a technical report may include a limited disclaimer of responsibility if:~~

~~(a) The qualified person is relying on a report, opinion or statement of another expert who is not a qualified person, or on information provided by the issuer, concerning legal, political, environmental or tax matters relevant to the technical report, and the qualified person identifies, identify the following:~~

~~(i)(a) the source of the information relied upon, including, for greater certainty, the date, title, and author of any the report, opinion, or statement or information, as applicable;~~

~~(ii) the extent of reliance; and~~

~~(iii) the portions of the technical report to which the disclaimer applies.~~

~~(b) The qualified person is relying on a report, opinion or statement of another expert who is not a qualified person, concerning diamond or other gemstone valuations, or the pricing of commodities for to which pricing is not publicly available, and the qualified person discloses~~

~~(i)(b) the date, title and author of relies on the report, opinion or, statement or information;~~

~~(ii) the qualifications of the other expert and why it is reasonable for the qualified person to rely on the other expert;~~

~~(iii) any significant risks associated with the valuation or pricing; and~~

~~(iv) any steps the qualified person took to verify the information provided.~~

~~(c) each part of the technical report to which the reliance applies.~~

Comment

Company as Qualified Person

The wording in the introduction to the Item contradicts the definition of a Qualified Person

*Do not rely on a report, opinion or statement of a person **or company that is not a qualified person** for any part of the technical report other than legal, political, environmental or tax matters.*

Companies under NI 43-101 cannot be a Qualified Person. It would be extremely helpful if consulting firms and companies could be considered as such.

Expert

In the introductory paragraph, who would be considered an “expert”? This was an issue as well with the 2011 edition, which did not provide guidance for the term. Industry assumed that it was the definition of an expert as provided in, for example the British Columbia *Securities Act*:

“expert” means a person whose profession gives authority to a statement made in a professional capacity by the person including, without limitation, an accountant, actuary, appraiser, auditor, engineer, financial analyst, geologist, or lawyer.

It would be helpful if the Proposed Modernization Draft Companion Policy clarified that the use in this instruction is the same as defined in securities law.

Author

See comment on this point under Instructions.

Removal of Marketing Information Reliance

The allowance for Qualified Persons to rely on experts for marketing information has been removed, and removed with no industry consultation. This is a major issue. Removing the allowance for the Qualified Person to rely on such experts and disclaim responsibility for the information is putting the Qualified Person in an untenable position. What issue were the regulators seeing that caused this important allowance to be removed?

Information on non-freely traded commodities (e.g. critical minerals, battery minerals, industrial minerals, gemstones) such as the price forecasts, supply and demand forecasts, market entry strategies, competitor analysis, and the different product premiums that can be paid on certain commodity forms, is not prepared by Qualified Persons.

This information is typically sourced from commodity analysts and specialists (e.g. CRU, Benchmark Intelligence, CPM Group). This type of expert information literally can make or break a project. A Qualified Person is not in a position to verify the market analyst information from commodity analysts and specialists. The research such companies do is extensive, and is proprietary. It is industry practice to rely on such experts.

See also comment on this point under Item 19.

Rely But Not Disclaim

The guidance appears to disallow the Qualified Persons to rely on subject matter expert reports and documents in the body of the report. It should be clear that Qualified Persons can still rely on this work, for example on geotechnical, hydrogeological, or environmental baseline studies performed by others, but cannot disclaim responsibility for it.

Reliance for Political Matters

Where would the Qualified Person go to source information on political matters? Is governmental the same as political? What information would constitute political information in the context of a technical report? What would be an example of a credible source for this type of information?

Item 4: Mineral Project Description and Location

Proposed Modernization Draft

Form	Companion Policy
<p>Describe the following, as applicable:</p> <p>(a) the area of the mineral project in hectares or other applicable units;</p> <p>(b) the location of the mineral project, using an easily recognizable geographic and grid location system;</p> <p>(c) the type, identifying name or number and expiration date of each mineral tenure comprising the mineral project;</p> <p>(d) the nature and extent of the issuer's title to or interest in the mineral project including, for greater certainty, surface rights and legal access, and the obligations that must be met to retain the issuer's title to or interest in the project;</p> <p>(e) any permit or agreement required under laws to conduct the work proposed for the mineral project, including, for greater certainty, those with Indigenous Peoples, rightsholders or communities, as applicable, and whether the permits or agreements have been obtained or entered into;</p> <p>(f) the terms of any agreement concerning royalties, back-in rights or payments, and any encumbrances, to which the mineral project is subject;</p> <p>(g) to the extent known, any environmental liabilities to which the mineral project is subject; any significant factors and risks that are not described in paragraphs (a) to (g) that may affect the ability to perform work on the mineral project.</p>	<p>(1) Information required under Items 4 (d), (e), (g) and (h) may include the rights of Indigenous Peoples, as defined in the mineral project's jurisdiction. The information to be provided does not require the disclosure of confidential information about rightsholders, for example an agreement between an issuer and a rightsholder that is subject to confidentiality obligations.</p> <p>(2) The reference in Item 4 (c) to type of mineral tenure may include a claim, exclusive exploration right, licence, lease, concession, permit or tenement.</p> <p>(3) Item 4 (d) requires disclosure of who holds the surface rights associated with the mineral project, if any.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 4: ~~Property Mineral Project~~ Description and Location ~~To~~

Describe the extent following, as applicable, describe:

- (a) the area of the ~~property mineral project~~ in hectares or other ~~appropriate applicable~~ units;
- (b) the location, ~~reported by of the mineral project, using~~ an easily recognizable geographic and grid location system;
- (c) the type of mineral tenure (claim, licence, lease, etc.) and the identifying name or number of each and expiration date of each mineral tenure comprising the mineral project;
- (d) the nature and extent of the ~~issuer's issuer's~~ title to, or interest in, the ~~property mineral project~~ including, ~~for greater certainty~~, surface rights, and legal access, and the obligations that must be met to retain the ~~property, and the expiration date of claims, licences or other property tenure rights~~ ~~issuer's title to or interest in the project~~;
- (e) ~~to the extent known, the terms of any royalties, back-in rights, payments, or other agreements and encumbrances to which the property is subject;~~
- (f) ~~to the extent known, all environmental liabilities to which the property is subject;~~
- (g)(e) ~~to the extent known, the permits that must be acquired any permit or agreement required under laws to conduct the work proposed for the property, and if the permits mineral project, including, for greater certainty, those with Indigenous Peoples, rightsholders or communities, as applicable, and whether the permits or agreements have been obtained; and or entered into;~~
- (f) ~~the terms of any agreement concerning royalties, back-in rights or payments, and any encumbrances, to which the mineral project is subject;~~
- (g) ~~to the extent known, any other environmental liabilities to which the mineral project is subject;~~
- (h) ~~any significant factors and risks that are not described in paragraphs (a) to (g) that may affect access, title, or the right or the ability to perform work on the property mineral project.~~

Comment

“Any” Requirement

Use of the term “any” as a requirement in 4(e) and 4(h) is too broad. There is absolutely no filter on this; it is explicitly saying there is no permit at any level of government that can be omitted. Projects commonly have local, provincial/state, and federal permits to obtain. Many projects have in excess of 500 permits to cover all aspects of planned construction and operations once all governmental requirements are met; others have considerably more. A summary document is not the location for a list of “any” permit associated with development and operations.

For exploration-stage properties the requirement should be only those needed to complete the planned work program.

For projects subject to mining studies, a list of the material permits is of use to investors, as is the information as to whether they are in the process of having permit applications drafted, whether the applications have been lodged, or whether selected permits have been granted. All available information on permitting, however, as per the instruction is not reasonable.

An instruction requiring “any information” is also setting the Qualified Person up to fail, since they cannot do this while simultaneously meeting the summarization instruction.

Permits and Agreements for Work Programs

Firstly, which laws does “any permit or agreement required under laws” refer to? Is this literally meant to reflect any law-making entity, including federal, provincial and local?

Permit applications are based on imperfect information, because of a number of factors, including the expense and practicality considerations that are involved in data collection, the small sample size available for interpretation and test work, the need to extrapolate from the data collected, the amount of data interpretation required, and the number of inputs that require predictive assumptions, the attitude of stakeholders to mining generally, and the project in particular. There is no “for greater certainty” that can be implied or should be required when dealing with forecasts and interpretations as to permit grant or ability to enter into agreements.

The phrase does not provide clarity, nor does it contribute to understanding of how rapidly a permit application will progress once lodged, or how successful negotiations are with Indigenous Peoples, rightsholders or communities, or how well agreements that have been concluded operate in actuality.

If there is something the mining industry is certain of, it is that they cannot be certain of the status of any permit application. They can be sure they have submitted the application, but cannot predict what additional studies or consultation will be required prior to a permit decision to grant is made. They also cannot predict what information will result in a permit refusal.

Indigenous Peoples and Rightsholders

Who or what is a rightsholder? This is not defined in the Proposed Modernization Draft, nor, as far as can be ascertained, is it defined in securities law. The Companion Policy is not helpful on

this point as it just notes that the definition of Indigenous Peoples is what is defined as in the jurisdiction that hosts the mineral project.

The United Nations Children's Fund has a definition for rightsholder:

Individuals or social groups that have particular entitlements in relation to specific duty-bearers. In general terms, all human beings are rights-holders under the Universal Declaration of Human Rights. In particular contexts, there are often specific social groups whose human rights are not fully realized, respected or protected. More often than not, these groups tend to include women/girls, ethnic minorities, indigenous peoples, migrants and youth, for example. A human rights-based approach does not only recognize that the entitlements of rights-holders needs to be respected, protected and fulfilled, it also considers rights-holders as active agents in the realization of human rights and development – both directly and through organizations representing their interests.

Is that the context in which the Qualified Person should be determining disclosure? It is a long way from the concept of the materiality and what would cause an investor to buy, trade or sell shares. Rightsholder must be defined; without it, the Qualified Person will never be able to be certain that compliant disclosure for that entity is feasible, or what information needs to be provided.

The requirement to discuss rightsholders is setting an issuer, and its Qualified Persons up for criticism if a possible rightsholder group is not identified in the technical report. It can upset those who were not included as much as upsetting those rightsholders who have been identified. It should be seen to reside with the issuer's management to address through the issuer's continuous disclosure.

There is no "for greater certainty" that can be implied or should be required when dealing with agreements with Indigenous Peoples, rightsholders, or communities, many of which are sensitive, and have confidential terms. "Any" does not allow the Qualified Person leeway to omit information because it is confidential.

Information required in 4(e) of the Form is not information that should be part of technical report disclosure. Prescriptive disclosure requirements will never be able to address the complexity surrounding project evaluation and development in areas of the rights of Indigenous Peoples. Nor will such requirements be able to address each individual circumstance across a wide variety of deposit types, mining and process methods, and infrastructure types and locations. Rights of Indigenous Peoples may be well understood in certain contexts, and are increasingly covered by at least drafts of rights documents. For example, it may be clear as to what consultation and rights are expected in the context of an early-stage exploration play, where no destructive testing is planned. It may also be reasonably understood as to what consultation and rights are expected in the context of initial destructive testing. Work programs beyond that, however, may well require concerted and dedicated consultation and negotiation, which may be in the preliminary stages, or not yet have commenced.

Social consultation, including consultation with Indigenous Peoples, consists of constructing a delicate, fragile network of understanding and mutual obligations between communities and

issuers, where both parties have to be able to express interests, frustrations, and concerns, and negotiate to a point where all parties are, if not completely satisfied, at least able to agree to work together under a mutually-agreed upon set of objectives and frameworks for achieving the objectives. Technical reports are not a good repository for social information as they are designed as snapshot-in-time overviews of a project at a milestone reporting event. They cannot provide the level of detail that is needed to inform investors of real-time and ongoing negotiations, discussions, and changes as they are only current as at their effective date, and can remain current for a number of years. Current disclosure on social information is an issuer obligation, using avenues available through its continuous disclosure obligations, supplemented by information provided through social media, and its website. Discussion of the rights of Indigenous Peoples falls within the same parameters, that maintaining updated and current disclosure on social information is an issuer obligation and best managed by the issuer.

Informed prior consent is considered by many indigenous groups to be a type of informal permit to conduct work. However, in many cases, informed prior consent consists of a combination of prior consultation and ongoing dialogues; that concept is not the same as a signed agreement or formal permit document with a permitting authority. It is, however, an important item of public perception for the issuer to have obtained.

Information on the rights of Indigenous Peoples is not typically within the purview of a Qualified Person. These data types are collected by, and interpreted by experts, but experts who generally do not meet the narrow definition of a Qualified Person in NI 43-101. By their nature, matters relating to Indigenous Peoples fall within the ESG sphere, and focus on judgment and interpretation. They are not on the same basis as the scientific and technical information used by Qualified Persons for other areas of mining project evaluation.

The biggest risk with CSA staff requiring a definitive approach as to what is under negotiation, which whom, and what is agreed upon is that this content alone will jeopardize discussions with some stakeholders. The status might be correct on the date the issuer gave the Qualified Person the information, but as negotiations and negotiating positions can alter rapidly and significantly, the technical report as a snapshot in time is not the correct place for the information; it stale-dates too quickly. The correct place for this information is in the company's management discussion and analysis (MD&A) and continuous disclosure presentations, where changes and updates can be rapidly communicated.

Even a bland general statement may be an issue in a technical report, if stakeholders think that statement is the issuer minimizing concerns, playing down issues, or claiming progress toward a resolution in negotiations.

Environmental Liabilities

Part (g) of the Form remains a problematic area for the Qualified Person to be sure of what compliant disclosure on environmental liabilities should look like. There is no guidance in the Companion Policy. Is the intent to only have the discussion limited to the issuer's liabilities? If so, is what is required a list of the current environmental liabilities and the plan(s) to manage those? Is it requiring documentation in detail of those liabilities; something the laundry list requirements in Item 20 to list every environmental study appears to suggest? How is the Qualified Person to accomplish this in old mining districts, and verify that information?

For Greater Certainty

See comment on this point under Illustrations.

Not Relevant/Not Applicable

See comment under this point in Instructions.

Guidance

There is no guidance provided by (3) in the Companion Policy: it is just restating what is required in item 4 (d), and is redundant. The remainder of (3) is another instruction in addition to what is set out in the Form, it is not guidance:

disclosure of who holds the surface rights associated with the mineral project, if any.

This guidance is more far-reaching than just requesting, as the current Form wording does, the nature and extent of the surface rights held by the issuer.

Missed Opportunities

There was a missed opportunity to remove the repetition in content requirements in Item 4 where those are also required in Item 20.

There was a missed opportunity to explicitly address streaming agreements in 4 (f). A streaming agreement is not a royalty, it is a contract, so the royalty requirement in 4 (f) does not extend to discussion of streaming agreements. Streaming agreements need to be disclosed; a step the United States Securities and Exchange Commission (SEC) took with Regulation S-K 1300 (S-K 1300). The SEC appear to have rejected the argument that a streaming agreement is a financial tool, since if a project is sold, the streaming agreement does not stay with the vendor, it goes with the project to the buyer. Being silent or ignoring streaming agreements is not in the investor's best interest since these agreements are modifying factors: they should be included in the cut-off criteria in estimation, since at the project level, the operation will not receive the full metal price for every block. At the project level, the operation will have some resource blocks with the full metal price, and depending on which elements are covered in the metal streaming agreement, only partial value for other resource blocks.

Item 5: Accessibility? Local Resources? Infrastructure and Physiography

Proposed Modernization Draft

Form	Companion Policy
<p>Describe the following:</p> <p>(a) topography and elevation of the mineral project;</p> <p>(b) the means of access to the mineral project;</p> <p>(c) the proximity of the mineral project to a population centre and to any protected or sensitive environmental or cultural areas;</p> <p>(d) if relevant to the mineral project, the length of the operating season and an explanation of any constraints;</p> <p>(e) if relevant to the mineral project, the sufficiency of surface rights for mining operations and the availability and sources of power, water, personnel, potential tailings storage areas, potential waste disposal areas, potential heap leach pad areas and potential processing plant sites.</p>	<p>We expect that the disclosure of sufficiency of surface rights to include a description of the surface rights necessary to further develop any potential mining operation under Item 5 (e).</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 5: Accessibility, ~~Climate~~, Local Resources, Infrastructure and Physiography—

Describe the following:

- (a) topography, and elevation ~~and vegetation~~ of the mineral project;
- (b) the means of access to the ~~property~~ mineral project;
- (c) the proximity of the ~~property~~ mineral project to a population centre, ~~and the nature of transport~~ and to any protected or sensitive environmental or cultural areas;
- (d) ~~to the extent if~~ relevant to the mineral project, ~~the climate and~~ the length of the operating season; ~~and~~ and an explanation of any constraints;
- (e) ~~to the extent if~~ relevant to the mineral project, the sufficiency of surface rights for mining operations, and the availability and sources of power, water, ~~mining~~ personnel,
- (e) potential tailings storage areas, potential waste disposal areas, potential heap leach pad areas, ~~and~~ potential processing plant sites.

Comment

Vegetation

The removal of the instruction in (a) requiring discussion of vegetation was helpful, since it did not make sense to require discussion of flora but not fauna. Both can have significant impacts on mining projects if protected or vulnerable species are identified. Item 20 already required discussion of environmental information including the base line studies that evaluate flora and fauna, so it makes sense to consolidate the material information on the flora and fauna in that section and avoid the repetition of content requirements that (a) in the 2011 edition introduced.

Proximity

Part 5(c) is problematic. What would constitute “proximity”, and therefore require the Qualified Person to discuss in this section to provide compliant disclosure. Who is the determiner of what is proximal; is this based on the perceived area of interest for baseline studies? This would not be a useful criterion for studies where field-based baseline data collection has not started or baseline information is based on desktop studies. It is also an unnecessary duplication since Item 20 also contains content requirements that would identify such protected areas. There should be some guidance provided as to the geographical limits of what is proximal.

Climate

It would appear that the rewording of 4(d) to focus on the operating season and constraints on operations would include climate-related conditions where those would have a material impact on operations, so in effect the climate discussion is still retained as a content requirement.

Potential

The repetition of “potential” is ungainly in 5(e). Surely streamlining could have removed the necessity for the modifier to have been used in front of every infrastructure type. It also does not make sense to have “potential” used since technical reports on operations also have to address (e), and they do have those infrastructure types in place and operational; they are not potential.

Surface Rights

“We expect” is not guidance. It is clearly an instruction and should be, as such with the Form, not being used as guidance.

The guidance is not relevant to an early-stage exploration program. There hasn’t been a deposit discovered at this stage, let alone one that will require surface rights. Access for exploration purposes is not the same as surface rights and should not be conflated. An issuer cannot “further develop” something that doesn’t yet exist.

It is also not necessarily relevant to more advanced projects either, as many of the surface rights such as obtaining easements will only be final during the detailed engineering phase, which is not part of Mineral Resource estimation, or mining studies.

Missed Opportunities

There was a missed opportunity to remove repetition of information requirements between Item 5 (a) and (e) and Item 18 (a). Item 18 requires:

(a) roads, rail, port facilities, power and pipelines;

All of the content in 18 (a) should be Item 5 content, since all of this would be as relevant to an early-stage project as an operating mine.

There is a missed opportunity to remove the repetition of the requirement to discuss surface rights between Item 4 and Item 5. It is more logical to require the content as to whether the surface rights are sufficient to support infrastructure locations as part of the property rights discussions required in Item 4(d). It is also more logical to have this in Section 4, given the guidance (but actually an instruction) in the Companion Policy to discuss who holds the surface rights associated with the mineral project.

Item 6: History

Proposed Modernization Draft

Form	Companion Policy
<p>If relevant, summarize the following:</p> <p>(a) the prior ownership, and any changes in prior ownership, of the mineral project;</p> <p>(b) the type, amount, quantity and general results of exploration and development work undertaken by or on behalf of any previous owners or operators of the mineral project;</p> <p>(c) historical estimates in accordance with section 8 of the Instrument;</p> <p>(d) any production from the mineral project.</p>	<p>(1) Historical information required under Item 6 (b) may be presented in tabular format, where appropriate. If a mineral project does not have extensive history to warrant such a table, a summary in paragraph format will generally be sufficient.</p> <p>(2) As historical work may have been conducted outside the current mineral project boundaries, the report should clearly distinguish this historical work from the work conducted on the mineral project area that is the subject of the technical report.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 6: History—~~To the extent known, describe~~

If relevant, summarize the following:

- (a) the prior ownership ~~of the property,~~ and any changes in prior ownership changes, of the mineral project;
- (b) the type, amount, quantity and general results of exploration and development work undertaken by or on behalf of any previous owners or operators of the mineral project;
- (c) ~~any significant~~ historical ~~mineral resource and mineral reserve~~ estimates in accordance with section 2.48 of the Instrument; ~~and~~
- ~~(d) —any production from the property.~~

***INSTRUCTION:** If the technical report includes work that was conducted outside the current property boundaries, clearly distinguish this work from the work conducted on the property that is the subject of the technical report.*

(d) mineral project.

Comment

If Relevant

The initial instruction, “if relevant” will be difficult for a Qualified Person to compliantly address if there is no clear understanding of what “relevant” entails. A clear understanding of the concept is needed if the section is not to be flooded with immaterial information because the Qualified

Person errs on the side of more is better in the hope of the section not being found to have compliance issues.

Historical and Previous Estimates

Part 6(c) should be removed. Historical estimates had their place in the first edition of NI 43-101, as it allowed companies that had not yet upgraded their estimates to use the CIM Definition Standards. It was arguable for the 2005 edition to continue the allowance. However, the 2011 edition, and more particularly this Proposed Modernization Draft, are 11 years and a quarter century, respectively, after the CIM Definition Standards have been in place. The reasons for the allowance to disclose historical estimates made in the first edition no longer apply.

The best outcome from the feedback in the 2022 Consultation Paper would have been for CSA staff to remove the allowance for historical estimates, in the same manner as the SEC did in S-K 1300, restricting disclosure of a historical estimate to only the instance of a takeover or acquisition. This is an approach that would diminish the instances of non-compliance and provide more certainty to Qualified Persons and issuers that they know what compliant disclosure of such an estimate would look like. Given that takeovers and acquisitions typically have legal experts involved in disclosure, such an approach would also likely reduce the instances of non-compliance.

As presented in the Proposed Modernization Draft, the instructions relating to historical estimates need a materiality threshold and more clarity. It should be a CSA staff position that if there is a current Mineral Resource or Mineral Reserve estimate on a mineral project, then no historical estimate can be material (or relevant), and therefore that historical estimate is not suitable for disclosure, since it is superseded. If there are updated estimates available to an issuer and Qualified Person, why is the historical estimate appropriate to disclose?

The Proposed Modernization Draft Rule still has the long list of what must be provided to make compliant historical estimate disclosure; the Proposed Modernization Draft Companion Policy provides even more requirements, despite the Companion Policy intent to provide guidance only.

The content requirements in this sub-section are required each and every time disclosure of a historical estimate is made. Due to the length of the conditions that must be met, an undue emphasis is placed on the historical estimate that is generally not warranted if a materiality determination was also part of the assessment criteria. Outside the context of a takeover or acquisition, there is generally limited value in historical estimate disclosure as the investor reader has to understand the details in the disclosure the issuer and Qualified Person are required to make.

The historical estimate presentation still doesn't address a key issue for the mining industry, that of a previous estimate. What constitutes a previous estimate and how it can be compliantly presented is not part of the Proposed Modernization Draft Rule. However, there is an allowance for a previous estimate in the Proposed Modernization Draft Companion Policy, under Item 14 (7):

(14) (7). If the issuer wishes to disclose a previous mineral resource estimate or previous mineral reserve estimate prepared by the issuer related to the mineral project, these estimates should be referred to as a previous estimate and not a

historical estimate which is a defined term in the Instrument.

An allowance with no definition and no guidance is problematic. Do the Qualified Person and the issuer have to address all of the content requirements for historical estimate disclosure when disclosing a prior estimate, such that the two terms are treated synonymously for disclosure purposes, just under different names? Who is responsible for the information: the Qualified Person for the estimate at the time, or the current Qualified Person for the proposed disclosure?

Production Data

It is questionable if 6(d) constitutes useful information other than for an early-stage exploration property, since “any production from the property” will include poorly documented and often unverifiable information from historical sources, particularly for mineral fields initially discovered in the late 1800s and early 1900s. Issuers with early-stage exploration properties like to talk to the historical production only because that is a significant portion of the attractiveness of the mineral tenure. With the new requirements on data verification, providing “any” production data becomes a more significant issue. Qualified Persons should not be put in the position of providing data to meet a content requirement if the instruction is so broad that it requires them to include unverifiable data, but on the other hand, also be made legally responsible for verifying the unverifiable.

If the production information considered important information to provide to the investor, let alone to the “public” who are the new target of technical reports, guidance on how to meet the content requirements is needed. For operations with decades of production, can the Qualified Person just provide a number with a date range? Or, as appears to be the current presentation method, is the expectation to be an annualized table of production? Can the Qualified Person only talk to the issuer’s production, unlikely given the “any” instruction, or is the Qualified Person required to provide production from previous operators as well. What data verification on historical information will be considered acceptable, since there are no industry guidelines on production data verification.

Outside Property Boundary

Part (2) of the guidance is yet another example of an instruction being presented as if it were guidance. This is not guidance and should be with the instructions in the Form.

Missed Opportunities

It is a missed opportunity to clarify that the history section is also applicable to issuers who have a long history with a project but where there is no prior ownership. There are numerous projects that have essentially the same issuer (changes in name, but not ownership interest) involved since discovery. Those issuers should be able to talk to historical information in the same manner as an issuer that recently acquired a project can disclose historical information. The same concept should apply: both the issuer with the long project history and the issuer with prior ownership history information should describe the historical information in this section, and provide detailed information on the data that are still material to ongoing activities in Item 9 and Item 10 of the technical report.

Where the project has had numerous operators, but much of the information generated by those operators is part of active exploration planning or mineral resource estimation, it is more difficult for the investor to have to read the content required in Item 9 and Item 10 of the report back in Item 6, because that content was not part of the issuer's work on the project, and then read the issuer information in Item 9 and Item 10, and put all of that work in context. Hence both Sections 6 and 9 should allow presentation of issuer and previous operator information as long as it is clear who did the work.

There is a missed opportunity to remove the requirement to discuss "general results of exploration and development work undertaken by on behalf of any previous owners or operators". There is an obligation on the Qualified Person under the proposed data verification component to verify what is being presented and there may be significant work that has to be discussed. Rewording to just require the type, amount, and quantity of work is recommended. If the results of the previous operator are relevant, there should be, as already stated, allowance for this information to be discussed as part of the Item 9 requirements. The Qualified Person should not have to go to the Proposed Modernization Draft Companion Policy to find that, indeed, the Qualified Person can discuss historical work:

If, in addition to any exploration work by the issuer, the technical report includes exploration results from previous operators, clearly identify the work conducted from previous operations. We consider it suitable to include work done by others if the issuer and the qualified person believe the work remains current.

Item 7: Geological Setting and Mineralization

Proposed Modernization Draft

Form	Companion Policy
<p>Include the following:</p> <p>(a) a summary of the regional setting and mineral project geology;</p> <p>(b) a summary of the significant mineralized zones encountered on the mineral project, including, for greater certainty, a summary of the surrounding rock types, relevant geological controls and the length, width, depth and continuity of the mineralization, and a description of the type, character and distribution of the mineralization;</p> <p>(c) if the technical report includes a discussion of mineralization on a neighbouring or analogue project, a statement with the same prominence as and proximate to the discussion that the discussion is not necessarily indicative of the mineralization on the mineral project that is subject of the technical report.</p>	<p>If disclosure under this item or any other item of the Form includes disclosure about a neighbouring or analogue mineral project, the disclosure should clearly distinguish between the information about such other mineral project and the issuer's mineral project, and the disclosure should not state or imply the issuer will obtain similar information from its own mineral project. The source of information for the other mineral project should also be clearly identified.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 7: Geological Setting and Mineralization –

~~Describe~~Include the following:

- (a) a summary of the regional, ~~local setting~~ and ~~property~~mineral project geology; ~~and~~
- (b) a summary of the significant mineralized zones encountered on the ~~property~~mineral project, including, for greater certainty, a summary of the surrounding rock types, relevant geological controls, and the length, width, depth and continuity of the mineralization, ~~together with~~and a description of the type, character and distribution of the mineralization;
- (c) if the technical report includes a discussion of mineralization on a neighbouring or analogue project, a statement with the same prominence as and proximate to the discussion that the discussion is not necessarily indicative of the mineralization on the mineral project that is subject of the technical report.

Comment

Introductory Paragraph

The introduction to this Item requires both a materiality and applicability filter. For early-stage projects, the Qualified Person simply cannot meet most of the content in (b); the project is not sufficiently explored to provide meaningful information on most of the requirements.

Local Geology

Removing the wording in the 2011 edition that required the local geology content in addition to regional and deposit geology is helpful since it was never clear what “local” actually applied to. Now it is clear it applies to the geology in the mineral tenure that collectively forms the mineral project.

For Greater Certainty

From the perspective of the Qualified Person preparing a technical report and the issuer for whom the technical report will provide support for much of its disclosure on that material property, it is not clear how they would demonstrate that they have met the criterion of “for greater certainty” to the satisfaction of a Canadian regulator when addressing the content requirements when most of the information required in (b) is based on interpretation. For deposits that are still under study, either as early-stage projects or being assessed through mining studies, there is no certainty of interpretation with many of the content requirements. For early-stage projects, the Qualified Person simply cannot meet most of the content in (b). Even at the resource estimation stage, the understanding of the “length, width, depth and continuity of the mineralization” is often still preliminary. For many properties, until significant metallurgical testwork is undertaken, and geometallurgical characteristics defined, the “description of the type, character and distribution of the mineralization” is rudimentary. The Qualified Person cannot provide greater certainty; they can provide interpretations and opinions.

See comment on this point in Illustrations.

Adjacent Property

Part 7 (c) is added because the former Item 23 Adjacent Properties content from the 2011 edition was deleted to make way for Item 23 in the Proposed Modernization Draft to become a report section focused on one single aspect of data verification. Obviously, the CSA staff felt that the former Item 23 Adjacent Properties content was only ever used for the geological information provision, which is incorrect for some issuers. The former Item 23 Adjacent Properties content had uses outside that of explaining the geology on land held by another company, and was particularly useful for properties where the process method assumed toll treatment or joint venture properties where the process plant was wholly owned by one participant in the joint venture.

The concern with 7(c) as proposed is that there are content requirements that are not well explained. What would constitute a “neighbouring” project? Does that project have to have tenure contiguous, as in next to, or can it just be nearby? If the latter definition is applicable, what is an appropriate distance from the project that is the subject of the technical report for the Qualified

Person to consider the project to be neighbouring. Can a neighbouring property be one where the issuer has an interest, or must it be a property where the issuer does not have an interest?

The former definition in the 2011 edition, now struck out of the Proposed Modernization Draft Rule was actually helpful, and it would have been useful to have included elements of that definition here, or have explained where those elements of the former definition are explicitly not part of the considerations to meet the content requirements in 7(c).

~~“adjacent property” means a property~~

- ~~(a) — in which the issuer does not have an interest;~~
- ~~(b) — that has a boundary reasonably proximate to the property being reported on; and~~
- ~~(c) — that has geological characteristics similar to those of the property being reported on;~~

The last part of 7(c) [highlighted] should be part of the Rule; it is not part of the Form. This is required cautionary language and should be included under Part 2, Disclosure Requirements, specifically under the instructions on restricted disclosure.

(c) if the technical report includes a discussion of mineralization on a neighbouring or analogue project, a statement with the same prominence as and proximate to the discussion that the discussion is not necessarily indicative of the mineralization on the mineral project that is subject of the technical report.

It is unclear why the cautionary language would be required in the context of the technical report but not required when the information that requires cautionary language is used outside the technical report context. It should not be cautionary language required only in the technical report. If the analogue or neighbouring property is a key driver of why the information is in the technical report, it will likely be part of an issuer's disclosure elsewhere. But that disclosure can be made without requiring the cautionary language is then acceptable?

Missed Opportunities

There was a missed opportunity to provide guidance to the Qualified Person as to what is considered to be a reasonable basis for an “analogue project” as a comparator. There have been hearings that revolved around inappropriate analogues being used when comparing early-stage exploration properties to producing mines. Does the analogue deposit have to be in the same jurisdiction as the mineral project? Or can global examples provide sufficient basis?

Item 8: Deposit Type

Proposed Modernization Draft

Form	Companion Policy
Describe the mineral deposit types being investigated or being explored for and the geological model or concepts being applied and on the basis of which the exploration program is planned.	No guidance provided

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Item 8: Deposit ~~Types~~ Type

Describe the mineral deposit ~~type(s)~~types being investigated or being explored for and the geological model or concepts being applied ~~in the investigation~~ and on the basis of which the exploration program is planned.

Comment

Missed Opportunities

This was a missed opportunity to rewrite the content requirement to explain that the purpose of the Item requirement is to have the Qualified Person provide the genetic model type. One of the biggest issues with not changing the Item heading or the Item instructions is that so many Qualified Persons interpret “deposit type” and “geological model” to be another requirement to describe the mineralization of the deposit, making the disclosure they provide under this Item non-compliant.

Item 9: Exploration

Proposed Modernization Draft Form

Form	Companion Policy
<p>Describe the nature and extent of all relevant exploration work by the issuer, other than drilling, including the following:</p> <p>(a) the procedures and parameters relating to surveys and investigations;</p> <p>(b) the sampling methods and sample quality, including whether samples are representative, and any factors that may have resulted in sample biases;</p> <p>(c) the location, number, type, nature and spacing or density of samples collected and the size of the area covered;</p> <p>(d) the significant results and interpretation of the exploration information.</p>	<p>(1) If the issuer has not conducted any exploration on the mineral project this should be clearly stated.</p> <p>(2) If, in addition to any exploration work by the issuer, the technical report includes exploration results from previous operators, clearly identify the work conducted from previous operations. We consider it suitable to include work done by others if the issuer and the qualified person believe the work remains current.</p>

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Item 9: Exploration—~~Briefly describe~~

~~Describe~~ the nature and extent of all relevant exploration work by the issuer, other than drilling, ~~conducted by or on behalf of, the issuer~~, including the following:

- (a) the procedures and parameters relating to ~~the~~ surveys and investigations;
- (b) the sampling methods and sample quality, including whether ~~the~~ samples are representative, and any factors that may have resulted in sample biases;
- (c) ~~relevant information of the~~ location, number, type, nature, and spacing or density of samples collected, ~~and the size of the area covered; and~~
- (d) the significant results and interpretation of the exploration information.

~~INSTRUCTION: If exploration results from previous operators are included, clearly identify the work conducted by or on behalf of the issuer.~~

Comment

Previous Operators

Exploration information should be clearly allowed to include information from previous operators. That needs to be part of the Form, not something relegated to guidance in the Companion Policy as is currently the case in the Proposed Modernization Draft Companion Policy

Item 10 explicitly, in the Form, allows the use of information from previous operators in the introductory paragraph. Item 9 should have a similar instruction in the introductory paragraph as well.

Guidance

The first paragraph in the Companion Policy is an instruction, it is not guidance. It does not belong in the Companion Policy.

In (2), it is not clear what value asking for “current” is providing. This is actually one place where the term “relevant” would be a better substitute. Geological maps remain useable for years without having to be constantly checked to see if they are current.

This is one amongst many items in the Proposed Modernized Draft that disregards and discounts the fact that mining projects only advance by teamwork. The Qualified Person relies on those who came before. Information collected in campaigns is used over, and over again, with new information added as it becomes available. The last sentence should be removed.

Item 10: Drilling

Proposed Modernization Draft

Form	Companion Policy
<p>Describe the following, as applicable:</p> <p>(a) the type and extent of drilling, including procedures followed, a summary and interpretation of all relevant results and, if applicable, drilling conducted from previous operations;</p> <p>(b) any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results including, for greater certainty, any underground sampling or test work;</p> <p>(c) for a mineral project without mineral resources, the following:</p> <p>(i) the location, azimuth and dip of any drill hole, and the depth of the relevant sample intervals;</p> <p>(ii) the relationship between the sample length and the true thickness of the mineralization, if known, and if the orientation of the mineralization is unknown, state this;</p> <p>(iii) the results of any significantly higher-grade intervals within a lower-grade intersection.</p>	<p>(1) If the issuer has not conducted any drilling on the mineral project this should be clearly stated.</p> <p>(2) The disclosure required under this item may include any underground sampling, drilling or test work.</p> <p>(3) For mineral projects with mineral resource estimates, the qualified person may meet the requirements under Item 10 (c) by providing a drill plan and representative drill sections through the mineral deposit.</p> <p>(4) If drill results from previous operators have been verified by the qualified person and are included in a mineral resource estimate and are therefore being treated as reliable, we expect that these drill results will be included under this Item. The report should clearly distinguish the results of drilling conducted by or on behalf of the issuer from those of previous operators.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 10: ~~Drilling~~

Describe the following, as applicable:

- (a) the type and extent of drilling, including ~~the~~ procedures followed ~~and~~, a summary and interpretation of all relevant results and, if applicable, drilling conducted from previous operations;
- (b) any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results including, for greater certainty, any underground sampling or test work;
- ~~(c) for a property other than an advanced property~~
(c) for a mineral project without mineral resources, the following:
 - (i) the location, azimuth and dip of any drill hole, and the depth of the relevant sample intervals;
 - (ii) the relationship between the sample length and the true thickness of the mineralization, if known, and if the orientation of the mineralization is unknown, state this; ~~and~~
 - (iii) the results of any significantly higher-grade intervals within a lower-grade intersection.

INSTRUCTIONS:

- ~~(1) For properties with mineral resource estimates, the qualified person may meet the requirements under Item 10 (c) by providing a drill plan and representative examples of drill sections through the mineral deposit.~~
- ~~(2) If drill results from previous operators are included, clearly identify the results of drilling conducted by or on behalf of the issuer.~~

Comment

Typo?

The wording in (a) is wrong, since the technical report applies to more than just previous operations and restricting the content in (a) to only apply to historical operations would be poor practice. “Operations” should be replaced by “operators”.

Underground Sampling = Drilling

The requirement in (b) for underground sampling is simply wrong. How is underground sampling equated to drilling? Drilling and underground sampling are two different techniques, and are not equivalent. Nor is underground sampling generally seen to be an acceptable dataset for use in

Mineral Resource and Mineral Reserve estimation, it is most commonly a production tool because of the inherent biases in channel, face, and back sampling. How is testwork equivalent to drilling? Drilling is not a type of testwork. Both underground sampling and testwork need to be removed as types of drill data.

Nor is it clear what the CSA staff are referring to by requiring the Qualified Person to discuss underground testwork, in the latter part of the 10(b) requirements. What type of testwork would this be, and how does that relate to drilling? Drilling is not a type of test work; it is a sampling method.

For Greater Certainty

From the perspective of the Qualified Person preparing a technical report and the issuer for whom the technical report will provide support for much of its disclosure on that material property, it is not clear how they would demonstrate that they have met the criterion of “for greater certainty” when addressing the content requirements of, in particular, “any underground sampling or test work” when that information is clearly not part of drill data.

See comment on this point in Illustrations.

Not Relevant/Not Applicable

See comment under this point in Instructions.

Verification

The first sentence in the guidance in (4) is redundant. Verification is already required in the Rule and Form under those instructions for data verification. This is just a repeat of content that already has specific instructions for verifying.

Guidance

Much of this is not guidance. (1), (3), and (4) should be part of the Form instructions.

Item 11: Sample Preparation, Analyses and Security

Proposed Modernization Draft

Form	Companion Policy
<p>Include the following:</p> <p>(a) a description of sample preparation methods and quality control measures used before dispatch of samples to an analytical or testing laboratory, the method or process of sample splitting and reduction and the security measures taken to ensure the validity and integrity of samples taken;</p> <p>(b) a description of relevant information regarding sample preparation, assaying and analytical procedures used, the name and location of each analytical or testing laboratory, the relationship of the laboratory to the issuer and whether the laboratory is certified by any standards association and, if so, the particulars of any certification;</p> <p>(c) a summary of the nature, extent and results of quality control procedures used, and quality assurance actions taken or recommended, to provide adequate confidence in data collected and processed under this Item;</p> <p>(d) the qualified person's opinion on the adequacy of sample preparation, security and analytical procedures.</p>	No guidance provided

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Item 11: Sample Preparation, Analyses and Security—Describe

Include the following:

- (a) a description of sample preparation methods and quality control measures ~~employed~~used before dispatch of samples to an analytical or testing laboratory, the method or process of sample splitting and reduction, and the security measures taken to ensure the validity and integrity of samples taken;
- (b) a description of relevant information regarding sample preparation, assaying and analytical procedures used, the name and location of ~~the each~~ analytical or testing ~~laboratories~~laboratory, the relationship of the laboratory to the issuer, and whether the ~~laboratories are~~laboratory is certified by any standards association and, if so, the particulars of any certification;
- (c) a summary of the nature, extent, and results of quality control procedures ~~employed~~used, and quality assurance actions taken or recommended, to provide adequate confidence in ~~the data collection~~collected and ~~processing; and~~processed under this Item;
- (d) the ~~author's~~qualified person's opinion on the adequacy of sample preparation, security, and analytical procedures.

Comment

Certification

In 11(b) it has never been clear what “the particulars of any certification” requires to compliantly meet the instruction. Typically, the Qualified Persons report the laboratory’s ISO accreditations, but do not provide details as to that certification. This assumes that ISO accreditations are a type of certification by a “standards association”. Is that sufficient to meet the content requirement of “particulars”?

If streamlining is an important part of the update, is the laboratory certification requirement in (b) still needed? The issue of phony laboratories, very much a concern in the past, has been defused. Laboratory performance is now universally monitored using QA/QC, since proper QA/QC, properly evaluated, is a good reflection of how well a laboratory is doing. Even certified laboratories, if certification was a concern, can have issues: poor calibration, sample swaps, contamination between samples. Certification does not address those. The certification requirement should be removed; it is no longer relevant.

On the same topic, is (b) content requirement on the relationship of the laboratory to the issuer still relevant? The majority of the mine laboratories are very conscious of procedures and analytical accuracy. They, unlike mine laboratories historically, are generally only used for production samples. Current industry practice is generally not to routinely use the mine laboratories to analyze exploration samples. Current industry practice for operations is to have grade estimation performance validated by reconciliation data. Current industry practice is also to outsource mine laboratory management and operation to third-parties, which are primarily major laboratory groups. Is there any significant benefit to continuing to require independence statements?

Adequate Confidence

When would the CSA staff interpret that the QA/QC was insufficient to provide “adequate confidence” as required in 10(c)? Can Measured Mineral Resources be supported by data of “adequate confidence” given the definition of Measured Mineral Resources?

What is the Qualified Person intended to understand from the use of the word “processed” in 10(c)? This was not clear as to what content was required in the 2011 edition either. Does “processed” refer to how the data are reviewed and uploaded into a database? Does it refer to QA/QC or data verification by the Qualified Person?

Suitable for Use

The biggest concern with content in 10(c) and 10(d) is how the Qualified Person can meet compliance requirements around explaining that analytical data are suitable for use in the technical report but also convey the inherent risks with imperfect data, limited data, and the extrapolation the Qualified Person has to make from small sample sizes to resource blocks and selective mining unit scales.

Author

The change from the 2011 edition where author is replaced by Qualified Person in 10(d) is a helpful change, and clarifies who must make the statement.

Item 12: Data Verification

Proposed Modernization Draft

Form	Companion Policy
Describe the data verification steps taken by each qualified person who prepared or supervised the preparation of all or part of an Item of the technical report and include the following: (a) the information required under section 11 of the Instrument; (b) an opinion on the adequacy of the data for the purposes used in the technical report.	The appropriate qualified person should conduct data verification on any scientific and technical information included in the report. Data verification steps may be necessary for, but not limited to, parts or all of Items 9, 10, 11, 13, 14, 15 and 17, and any assumptions used in Items 21 and 22. Technical report authors are reminded that simply referencing prior data verification conducted by others does not meet the requirements of this Item. We remind issuers that a technical report disclosing mineral resources or mineral reserves under Items 14 and 15, respectively, must comply with the requirements set out in sections 6, 7 and 13 of the Instrument.

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Item 12: Data Verification—

Describe the data verification steps taken by ~~the~~each qualified person ~~to verify the data in who prepared or supervised the preparation of all or part of an Item of~~ the technical report, ~~including and include the following:~~

- (a) ~~the data verification procedures applied by~~information required under section 11 of the qualified person~~Instrument;~~
- (b) ~~any limitations on or failure to conduct such verification, and the reasons for any such limitations or failure; and~~
- (c)(b) ~~the qualified person's~~an opinion on the adequacy of the data for the purposes used in the technical report.

Comment

Definition

Data verification is no longer a defined term in the Proposed Modernization Draft; it has been removed from the definitions in Part 1 of the Proposed Modernization Draft Rule. There is minor guidance provided under “Meaning of Personal Inspection” in Part A of the Companion Policy, where that states:

21 (1) Meaning – The current personal inspection referred to in section 21 of the Instrument is the most recent personal inspection of the mineral project, provided there is no new relevant scientific or technical information about the mineral

project since that personal inspection. A personal inspection may constitute a current personal inspection even if the qualified person conducted the personal inspection considerably before the filing date of the technical report, if there is no new relevant scientific or technical information about the mineral project at the filing date. However, since the qualified person is certifying that the technical report contains all relevant information about the mineral project, the qualified person should consider taking the necessary steps to verify independently that there has been no additional work done on the mineral project since their last personal inspection.

(21) (2) Importance of personal inspection – *We consider a current personal inspection under section 21 of the Instrument to be particularly important because it will enable qualified persons to become familiar with conditions on the mineral project. A qualified person can observe the geology and mineralization, verify work done and, on that basis, design or review and recommend to the issuer an appropriate exploration or development program. A current personal inspection is required even for mineral projects with poor exposure. In such cases, it could be relevant for a qualified person to observe the depth and type of the overburden and cultural effects that could interfere with the results of the geophysics. A current personal inspection also allows for a qualified person to observe the access, limitations, environmental setting and the overall nature of the mineral project, which may or may not impact the ability to conduct further work or development.*

Verification On All Items

The first paragraph of the Companion Policy is extremely confusing. The Form requirements make it clear that all Items in the form require verification. Here the wording suggests, and is likely to be misinterpreted, as only certain Items needing verification since there is a selective list of Form Items.

The requirement to verify “any scientific and technical information included in the report” in the Companion Policy is too sweeping. This requirement needs to have a materiality assessment. Assumptions and opinions are part of the information in a technical report. How is the Qualified Person expected to verify these? As a result Qualified Persons will provide pages of data verification in a technical report in an attempt to stave off interpretations by the regulators that inadequate verification was performed.

Applying data verification to every Item in the technical report is not practical. How does the Qualified Person complete data verification on Item 3, reliance on other experts? The point of Item 3 is that the Qualified Person is relying on that expert for the information, and disclaiming responsibility for the information. On Item 12, which is the data verification section? What data verification is required to be conducted on how data verification was performed? On Item 26, which are recommendations based on the Qualified Person’s opinions of the work suggested to the issuer to complete?

Section 12 requires now that data verification is completed on all technical report sections. However, data can be verified, opinions and interpretations cannot. A Qualified Person should never be required to validate relationships between an issuer and stakeholders, particularly Indigenous Peoples. Validation is a concept that normally assumes a parallel check on the information and interpretations, to come up with a similar result. An example in the Mineral Resource estimation sphere is to use a different interpolation method to check the outcomes of the preferred interpolation, such as a nearest-neighbour versus ordinary kriging estimate. How would a Qualified Person perform a parallel check on the “rightsholder” or “socio-economic” factors that could materially affect each of the Mineral Resources, Mineral Reserves and cost estimates?

The CSA staff are requiring verification by Qualified Persons on information for which industry has yet to establish standards or guidelines on verification processes. This means that CSA staff will now determine what is acceptable data verification for most discipline areas, and moreover, what compliant data verification will consist of. The requirement for data verification should have both a materiality filter, and a filter on what it is actually reasonable to ask for a Qualified Person to have verified. There have to be industry-accepted practices for data verification for that particular discipline area. Neither the materiality nor the reasonableness filter are currently part of the Proposed Modernization Draft.

Securities lawyers completing compliance reviews will require each Qualified Person to provide data verification. However, this leaves the Qualified Person with significant uncertainty as to what to provide if their discipline area is one of the many for which there are no industry guidelines. Or where they are unaware of a CSA staff determination for that discipline area as to what the CSA staff consider to be appropriate verification. Or where the section of the technical report is one where, as already noted, the subsection has information that cannot be validated since it is either opinion-based or is based on information that the Qualified Person has sourced from another expert and is relying on that expert for the information, and disclaiming responsibility for the information.

An Opinion

With (b), is this changed wording now allowing “an opinion” to be that of the issuer? Does only one Qualified Person have to provide the opinion since it is referring to “an opinion”, as singular, such that like site visits, one Qualified Person has to have gone to site, so only one Qualified Person needed to provide the opinion?

Previous Data Verification

Previous data verification efforts are part of the team approach used across mining projects. Industry has always regarded data verification as a team effort, and in fact in many of the reporting codes globally, that team effort is enshrined in guidance when preparing Mineral Resource and Mineral Reserve estimation. Verification builds and rebuilds on work completed by others. If one area of data has been well verified, and that verification is well documented, and the Qualified Person has read the work, and agreed that it is what they would have done themselves, then there is no benefit to the issuer or investor to have the work repeated because a regulatory instruction requires Qualified Persons to re-invent the wheel each and every time a new technical report is prepared.

Issuer Responsibility

The guidance included to remind issuers that a technical report disclosing mineral resources or mineral reserves is redundant. If the Rule already requires specific compliance requirements, then this last paragraph is not necessary. It is not providing useful guidance or clarity.

The compilation of and responsibility for information in the technical report, including compliant presentation of the estimates is with the Qualified Persons, not with the issuer; that is clear from content that must be provided in the Certificate of Qualified Person and Consent of Qualified Person.

Item 13: Metallurgical Testing

Proposed Modernization Draft

Form	Companion Policy
<p>If metallurgical testing analyses have been carried out, discuss the following:</p> <p>(a) the nature and extent of the testing and analytical procedures and, in summary form, the relevant results;</p> <p>(b) the basis for any assumptions or predictions regarding recovery estimates;</p> <p>(c) the degree to which test samples are representative of the various types and styles of mineralization and the mineral deposit as a whole;</p> <p>(d) any factors or deleterious elements that could have a significant effect on potential economic extraction.</p>	<p>Disclosure related to the amount and reliability of the metallurgical test work conducted on the mineral deposit should be appropriate and sufficient to support the stage of development of the mineral project.</p>

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Item 13: ~~Mineral Processing and~~ Metallurgical Testing – ~~If mineral processing or~~

If metallurgical testing analyses have been carried out, discuss the following:

- (a) the nature and extent of the testing and analytical procedures, ~~and provide a, in~~ summary ~~ofform~~, the relevant results;
- (b) the basis for any assumptions or predictions regarding recovery estimates;
- (c) ~~to the extent known,~~ the degree to which ~~the~~ test samples are representative of the various types and styles of mineralization and the mineral deposit as a whole; ~~and~~
- (d) ~~to the extent known, any processing~~ any factors or deleterious elements that could have a significant effect on potential economic extraction.

Comment

To The Extent Known

The removal of “to the extent known” is problematic, when no relevancy or materiality filter is allowed the Qualified Person.

Representative Samples

Part 13(c) does not help issuers and Qualified Persons manage investor expectations when dealing with early stage projects with limited data availability. At this stage, the most honest

answer from the Qualified Person is that they simply don't know whether samples selected for metallurgical testwork are representative. Often, at this stage, the deposit limits haven't been established, and there will be limited understanding of the geometallurgical characteristics. In addition, geometallurgical characteristics of a deposit are constantly being assessed during mining studies, and during operations, as the mineralization being extracted in the LOM plan changes with location and depth. Geometallurgy is not static, and constantly evolves as a project progresses.

Any

In 13 (d), "any" is now a very difficult standard for a Qualified Person to address. It is too broad an ask to provide "any", and a materiality filter must be included in the instructions.

See also comment on this point in Item 4.

Guidance

What is provided is not guidance. It is motherhood statements being presented as if they were guidance. This entire section should be struck out.

What would be useful to the Qualified Person is to provide meaningful guidance on presentation of metallurgical information: testwork, variability, recovery forecasts and deleterious elements.

Item 14: Mineral Resource Estimates

Proposed Modernization Draft

Form	Companion Policy
<p>If the technical report includes disclosure of mineral resources, include the following, as applicable:</p> <p>(a) the key assumptions, parameters and methods used to estimate the mineral resource and how it was generated;</p> <p>(b) the inputs for each cut-off grade or economic limit and how they meet the test of “reasonable prospects for eventual economic extraction”, as defined by CIM;</p> <p>(c) if the grade for a multiple commodity mineral resource is reported as a metal or mineral equivalent, the individual grade of each metal or mineral and the metal prices, recoveries and other relevant conversion factors used to estimate the metal or mineral equivalent grade;</p> <p>(d) a general discussion of the criteria used to classify the mineral resource, the average drill or sample spacing, the continuity of the important zones in the mineralization model and, if applicable, a relevant visual representation;</p> <p>(e) the statistical representation of the distribution of distances from the nearest data support for each category of the mineral resource;</p> <p>(f) the mineral resources reported on a 100% basis and, if the issuer does not hold the mineral resources on a 100% basis, the percentage of the mineral resources attributable to the issuer;</p> <p>(g) if known, any environmental, permitting, legal, title, taxation, rightsholder, socio-economic, marketing, political and other relevant factors that could materially affect the mineral resource estimate;</p> <p>(h) if multiple cut-off grade scenarios are presented, identification of the base case or preferred scenario.</p>	<p>(1) A statement of quantity and grade or quality is an estimate and should be rounded to reflect the fact that it is an approximation.</p> <p>(2) Where multiple cut-off grade scenarios are presented, the qualified person must identify and highlight the base case or preferred scenario. All estimates resulting from each of the cut-off grade scenarios must meet the test of reasonable prospects requirements of mineral resources.</p> <p>(3) We do not interpret “relevant conversion factors” in Item 14 (c) related to metal equivalents to include the application of the modifying factors used in the conversion to mineral reserves.</p> <p>(4) Visual representations required under Item 14 (d) should clearly show the spatial continuity of the mineral resource, the confidence classifications and the constraining surfaces or shapes.</p> <p>(5) Each mineral project has its own set of risks and uncertainties, any of which could materially affect the mineral resource estimate. Disclosure under Item 14 (g) should be relevant to the particular mineral project. Failure to provide known risks specific to the mineral project may make the mineral resource estimate disclosure potentially misleading.</p> <p>(6) A mineral deposit is not a mineral resource unless it demonstrates the reasonable prospects requirements of mineral resources. Item 14 (b) requires the technical report to disclose the assumptions used to establish the reasonable prospects, which we interpret to include both economic and technical aspects.</p> <p>The economic aspects may include the metallurgical recovery, cost assumptions, metal prices and any other factors that might impact the eventual mining of the mineral resource. And depending on the type of mining method, the technical aspects may include minimum widths, spatial continuity and the application of appropriate constraining surfaces, areas and volumes.</p> <p>For example, a technical report disclosing a pit shell must also provide a description of the geological controls that are the basis for the geological model used to constrain the mineral resource estimation, including descriptions of the data and the criteria and methodology used to develop the model.</p> <p>(7) If the issuer wishes to disclose a previous mineral resource estimate or previous mineral reserve estimate prepared by the issuer related to the mineral project, these estimates should be referred to as a previous estimate and not a historical estimate which is a defined term in the Instrument.</p>

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Item 14: Mineral Resource Estimates—A

If the technical report disclosing includes disclosure of mineral resources must, include the following, as applicable:

- (a) ~~provide sufficient discussion of~~ the key assumptions, parameters and methods used to estimate the mineral ~~resources for a reasonably informed reader to understand the basis for the estimate resource~~ and how it was generated;
- (b) ~~comply with all disclosure requirements for mineral resources set out in the Instrument, including sections 2.2, 2.3 and 3.4;~~
- (b) ~~when~~ the inputs for each cut-off grade or economic limit and how they meet the test of “reasonable prospects for eventual economic extraction”, as defined by CIM;
- (c) ~~if~~ the grade for a multiple commodity mineral resource is reported as a metal or mineral equivalent, ~~report~~ the individual grade of each metal or mineral and the metal prices, recoveries, and ~~any~~ other relevant conversion factors used to estimate the metal or mineral equivalent grade; ~~and~~
- (d) ~~include~~ a general discussion ~~on the extent of~~ the criteria used to classify the mineral resource, the average drill or sample spacing, the continuity of the important zones in the mineralization model and, if applicable, a relevant visual representation;
- (e) ~~the statistical representation of the distribution of distances from the nearest data support for each category of the mineral resource;~~
- (f) ~~the mineral resources reported on a 100% basis and, if the issuer does not hold the mineral resources on a 100% basis, the percentage of the mineral resources attributable to which the mineral resource estimates could be materially affected by any the issuer;~~
- (d)(g) ~~if~~ known, any environmental, permitting, legal, title, taxation, rightsholder, socio-economic, marketing, political ~~or~~ and other relevant factors: that could materially affect the mineral resource estimate;

INSTRUCTIONS:

- (1) ~~A statement of quantity and grade or quality is an estimate and should be rounded to reflect the fact that it is an approximation.~~
- (2)(h) ~~Where~~ if multiple cut-off grade scenarios are presented, ~~the qualified person must identify and highlight~~ identification of the base case, or preferred scenario. ~~All estimates resulting from each of the cut-off grade scenarios must meet the test of reasonable prospect of economic extraction.~~

Comment

Generation of Mineral Resource

It is still not clear what content must be provided in 14 (a) for the Qualified Person to compliantly meet how a Mineral Resource estimate “was generated”.

(a) the key assumptions, parameters and methods used to estimate the mineral resource and how it was generated;

This was also a concern with the 2011 edition. Most Qualified Persons equated “generated” with “estimated” and gave a description of the stepwise processes that were used to arrive at the final estimation tabulation. Is that common practice sufficient to meet the “generated” instruction?

What does the “it” in (a) refer to? The mineral resource estimate itself? Or the key assumptions, parameters and methods? Or both?

Cut-off Grade

Part 14(b) has problematic content requirements. How much detail is required for the inputs for each cut-off grade/economic limit? It would be helpful to clarify what level of detail will be considered compliant disclosure to meet the content requirements. Will disclosure primarily in table format that summarize information, rather than as text presentation, be acceptable?

The first paragraph in part (6) of the guidance is both a re-statement of the Form, and a misappropriation by the regulators of setting industry practices by claiming that Item (14) (b) sets out what must be considered to be a Mineral Resource. In the first instance, it is not guidance, it is redundant and a re-statement that should be deleted. In the second instance, the CSA staff role is not to set or interpret what is and is not accepted industry practice. Nor is it to set out the definition of what a Mineral Resource is, what it is based on, and how it is assessed by the Qualified Person to have reasonable prospects of economic extraction. The CSA staff reword of that concept to “establish the reasonable prospects” both misstates the CIM definition, which does not say “the reasonable prospects requirements of mineral resources”, and reserves to the CSA staff the right to determine what that concept means. The CIM defines what must be considered in the assessment of reasonable prospects of economic extraction, and the CIM already cover both technical and economic parameters within the concept itself. The paragraph should be deleted.

In the same paragraph, the CSA staff demonstrate their lack of understanding of key concepts fundamental to the industry. Within the industry, it is accepted that the Qualified Person can never “demonstrate” reasonable prospects for economic extraction: all they can do is show that there are, under conceptual but reasonable parameters used to constrain potentially mineable shapes, the possibility of potential economic extraction. “Demonstrate” is only used in the context of Mineral Reserves, where the modifying factors are assessed, and the Qualified Person has shown that the mineralization can be economically extracted. A Qualified Person cannot “demonstrate[s] the reasonable prospects requirements of mineral resources”, they can only assess the likelihood of having reasonable prospects”. Again, the paragraph should be deleted.

The second and third paragraphs step firmly into industry practices and are not the purview of CSA staff and disclosure. These are practices, they are not law. They both need deletion.

Reasonable Prospects Test

The CIM does not and has not required considerations of reasonable prospects of economic extraction as a “test” as stated in (b):

(b) the inputs for each cut-off grade or economic limit and how they meet the test of “reasonable prospects for eventual economic extraction”, as defined by CIM;

The phrase is part of the definition of a Mineral Resource [text highlighted]:

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.

It is also a phrase that has guidance attached under the CIM Mineral Resource definition [text highlighted]:

The phrase ‘reasonable prospects for eventual economic extraction’ implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cutoff grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing.

The CIM does not limit, or equate, the consideration of reasonable prospects of economic extraction to a cut-off grade or economic limit as the wording in (b) implies; there are more considerations than those two terms that are set out in the CIM guidance that must be considered as part of a reasonable prospects assessment. CIM also does not define the term “reasonable prospects”, although the guidance highlighted in grey does provide some context as to what that assessment might entail.

If the CSA staff are reserving the right to assess passes or fails on the “test” assessment, then what is the test? Is it a positive cashflow? Net present value? Mine plan and cost estimate? All at the resource stage? The use of the word “test” implies that there is a formula or test applied to a portion or all of the Mineral Resource estimate to show that it has reasonable prospects. What has to be provided in (b) to demonstrate that the term “test” has been adequately addressed and that the information provided will be compliant?

It may be that the CSA staff are trying to introduce the S-K 1300 concept of an initial assessment. For US reporting issuers, an initial assessment must always be completed in support of mineral resource estimates, no matter the confidence category. The content requirements for the initial

assessment are specified in S-K 1300. In S-K 1300 that study may be disclosed in its entirety or summarized to show that the study was done, and the disclosed Mineral Resource estimates have reasonable prospects. Are the CSA staff requiring a scoping study, a term introduced in the Proposed Modernization Draft Rule to support Mineral Resource disclosure: is that what the “test” is?

The concept of a test may well be a reasonable ask by the CSA staff. However, there has to be clearly provided expectations of what is needed to meet the “test” requirement, and what types of disclosure would meet that requirement.

The end of the sentence in 14 (g) ties the request to materiality, which is a known, clear-cut threshold. This is one of the few cases where the “if known” requirement for a data dump is overridden by the “materially affect” wording.

Confidence Classification

Parts 14(d) and 14(e) are out of order. In the estimation process, confidence classification is completed before determinations of cut-off grades, or of metal equivalency. It would be helpful to have the list of instructions follow normal estimation processes.

Classification Criteria

What are the “criteria” (a general discussion of the criteria used to classify the mineral resource) referred to in 14(d)? Absent an explicit requirement for this to be the confidence classification criteria, the Qualified Person could reasonably assume that classification into oxide-, transition-, and fresh-rock hosted mineralization would be sufficient to meet this instruction. Or open pit versus underground mineralization.

It is not clear what asking for the average drill spacing in 14(d) is intended to address. Is it intended force standardization of drill spacings used for confidence classifications so that a database of acceptable drill spacing for any confidence classification could be constructed for any deposit type? Unfortunately, this breaks the golden rule, so clearly espoused by Dr. Harry Parker: “an ounce of geology is worth a pound of geostatistics; this may be disappointing to geostatisticians with no geological background; tough”. Drill spacing studies supporting resource confidence classifications are not a reflection of the average drill hole spacing; the average drill hole spacing is the outcome. The average drill hole spacing is highly variable across the mineralization, because, done properly, a number of input factors are considered in the drill spacing study, including the geology, mineralized zones, mining method, number of active mining faces planned, and the proposed throughput rate. For example, if the throughput rate changes, then the drill spacing used to classify the Mineral Resource estimate changes.

Drill spacing studies are an industry practice, but they are not the only methods within industry of assigning confidence classifications to Mineral Resource estimates. CSA staff should not be imposing a single method of classification; they are regulators, not industry practice standard setters. All of the content around drill spacing should be removed because that is a practice issue; Qualified Persons determine what is the most appropriate method, or combination of methods, when assigning confidence classifications.

What are the expectations for disclosure to be provided in 14(d) with the instruction to discuss “the continuity of the important zones in the mineralization model”. What is an important zone? Conversely, what would constitute an unimportant zone? What is a mineralization model? What if there is no mineralization model because the estimator has used grade shells? Is a grade shell the equivalent of a mineralization model? These terms need clarification.

A similar lack of clarity occurs with the phrase “if applicable, a relevant visual representation”. That is only explained in the Companion Policy to be:

Visual representations required under Item 14 (d) should clearly show the spatial continuity of the mineral resource, the confidence classifications and the constraining surfaces or shapes.

In context, are the items listed as being required in the visual interpretation what should be interpreted as “important zones”?

Why does the instruction include both “if applicable” and “relevant”? If it is to be considered relevant, why would it not be applicable? If the Qualified Person makes a determination that providing a visual representation is not applicable, does that negate the consideration of “relevant” in “relevant visual representation”?

Visual Representation

Part (4) is regulator imposed and is not a common industry practice. It may not be what a Qualified Person with relevant experience would do or choose to disclose. It is also not guidance. Something cannot be required to be clearly shown if that requirement is presented as guidance. It also is in contradiction to the Form, which uses “if applicable” wording.

There is no useful guidance in (4). For example, to be able to provide and show “the spatial continuity of the mineral resource, the confidence classifications and the constraining surfaces or shapes” will typically require orthogonal sections in three dimensions. Is this really useful for an investor? It is certainly useful for the CSA staff who do not understand estimation to use as a tool to question the Qualified Person’s judgement. Industry should be very concerned with how legal counsel are going to interpret this instruction, who they will get to opine as the source of industry practice, and then how they will implement their inevitable compliance checklist to make sure the item is addressed.

Statistical Representation of the Distribution of Distances

What is required in (e) is not standard industry practice and should be removed. It is assuming that all Qualified Persons in all instances use drill spacing.

Rounding

Part (1) of the guidance is a practice issue; it is not a disclosure issue. This is an example of CSA staff stepping into industry practices, and not confining to their responsibility of disclosure-related items. In addition, it is wrong, it should reflect not just rounding but that the estimate is reported using the appropriate significant figures. CIM correctly makes that distinction.

Factors That May Affect the Mineral Resources

It would be helpful to clarify what is meant by “if known” in the instructions to (g).

(g) if known, any environmental, permitting, legal, title, taxation, rightsholder, socio- economic, marketing, political and other relevant factors that could materially affect the mineral resource estimate.

Is the intent of the wording to allow the Qualified Person to provide information to the extent that the information is known and available, but not ask the Qualified Person to comment on information that is not available to them, or that the Qualified Person could not be expected to know for reasons such as confidentiality? The Qualified Person should not need to go to the Companion Policy to find that there is an allowance there for information required under Items 4 (d), (e), (g) and (h) to be omitted if it is confidential. This should be part of the Form instruction.

Why would relevant factors required to be discussed for Mineral Reserves omit taxation, but require taxation discussions for Mineral Resources? It is concerning that the CSA staff appear not to understand the differences between confidence classifications; reserves include the modifying factors such as taxes; resources do not.

Why does the relevant factors language for Mineral Resources require discussion of socio-economic, marketing, political legal, title information, but not Mineral Reserves? Why does the Mineral Reserves discussion require discussion of mining, metallurgical, and infrastructure factors, but not the Mineral Resources, when assumptions in those discipline areas are equally likely to be relevant factors that may affect the Mineral Resource estimates. Again, it is concerning that the CSA staff apparently do not understand the differences between the confidence classifications, what affects estimates, and what constitute the technical and economic factors considered when estimating Mineral Resources, and the modifying factors used to convert those Mineral Resources to Mineral Reserves.

Who or what is a rightsholder? See comment on this point in Item 4.

The content requirement in 14 (g) is asking the Qualified Person to provide commentary on information that is outside the purview of a Qualified Person (e.g. rightsholder, environmental), and, in terms of professional practice, outside their discipline area. CSA staff should be aware that their role in professional association enforcement cannot also simultaneously require a Qualified Person to provide opinions that are outside the Qualified Person’s area of practice.

Risks, including environmental, social, and permitting risks, are rightly seen by both Qualified Persons and an issuer’s management to be within management’s purview. Issuers communicate risks through MD&As, news releases, AIF and other disclosure documents. Issuers and investors do not solely rely on risks being identified in the technical report, since the technical report is a snapshot in time view of a project, is only required at certain corporate or project milestones, and is only episodically updated. Risks to the project can change significantly between a technical report and its update. It would be more misleading for the Qualified Persons in the technical reports to be the only source of identification of risks to the project, or the Mineral Resource or Mineral Reserve estimates. Unlike the technical report, the issuer’s other disclosures to investors are done on a timely basis.

The guidance in part (5) has no materiality threshold, but to provide misleading disclosure would mean the information has to be material. Qualified Persons are already being held responsible, before preparing the technical report, for providing misleading disclosure if known risks are not discussed. This is worrying language. Providing misleading disclosure is an offence under securities laws. This is explicitly saying that not providing specific risks is breaking the law.

There may be no specific risks known to the Qualified Person that meet a materiality threshold in the view of the Qualified Person. There may well be a number of general risks, and these are typically identified. Those risks are likely to be applicable to many deposit types and study stages. Just because a study is based on more detailed information does not necessarily mean that the risks facing the project have changed. Nor does completion of a particular project evaluation stage necessarily result in identification of any more specific risks than an earlier study stage.

Many technical reports only provide general disclosure about potential risks and uncertainties, simply because that is all that is known for that project stage. Many projects, even though they are for different commodities and different deposit types, also face exactly the same risks. Just because those risks may apply to all cost estimates doesn't mean that they are not real risks or uncertainties.

The expectation is that the CSA staff will continue to question a Qualified Person's judgement as to what are known project risks, further increasing the uncertainty for Qualified Persons around what will and will not be seen as compliant disclosure.

A further concern is that by explicitly requiring Qualified Persons that the expectation is that the Qualified Person will from the start not act professionally in performing risk assessments, the Qualified Person will provide a laundry list of risk statements that are risks, but not material risks. The message of risks will be drowned in the noise; and the risks will not be read by the investor, they will join the long list of securities-required pabulum, such as forward-looking information statements, that the investor reads past.

The CSA staff requirements in Item 14, Item 15 were being addressed, under the 2011 edition by Qualified Persons simply stating that they were "not aware of any" risks. Nothing in the revised and added wording in the Proposed Modernization Draft addresses this as a potential source of misleading information. Instead the Proposed Modernization Draft simply doubles down on the Qualified Person showing bad behaviour if the Qualified Person doesn't somehow produce a set of risks and uncertainties that can only be applied to the single project that is the subject of the technical report and never applied to any other project.

The requirement in (g) is also counter-productive, and would have benefitted from streamlining of content. Item 25 should consolidate the risk and uncertainty discussion; content requirements need to be restricted to only those parameters and interpretations that are within the purview of the Qualified Person, and CSA staff should abandon the position that there will always be a set of risks and uncertainties that can only be applied to the single project that is the subject of the technical report and never applied to any other project. Major risks are common to the industry, across jurisdictions, projects, studies, and commodities. Just because those risks are stated for different projects, again, does not invalidate them as being project-specific in each case.

Taxation

Why would relevant factors such as taxation be required to be discussed for Mineral Resources but not for Mineral Reserves?

Sensitivity Presentations

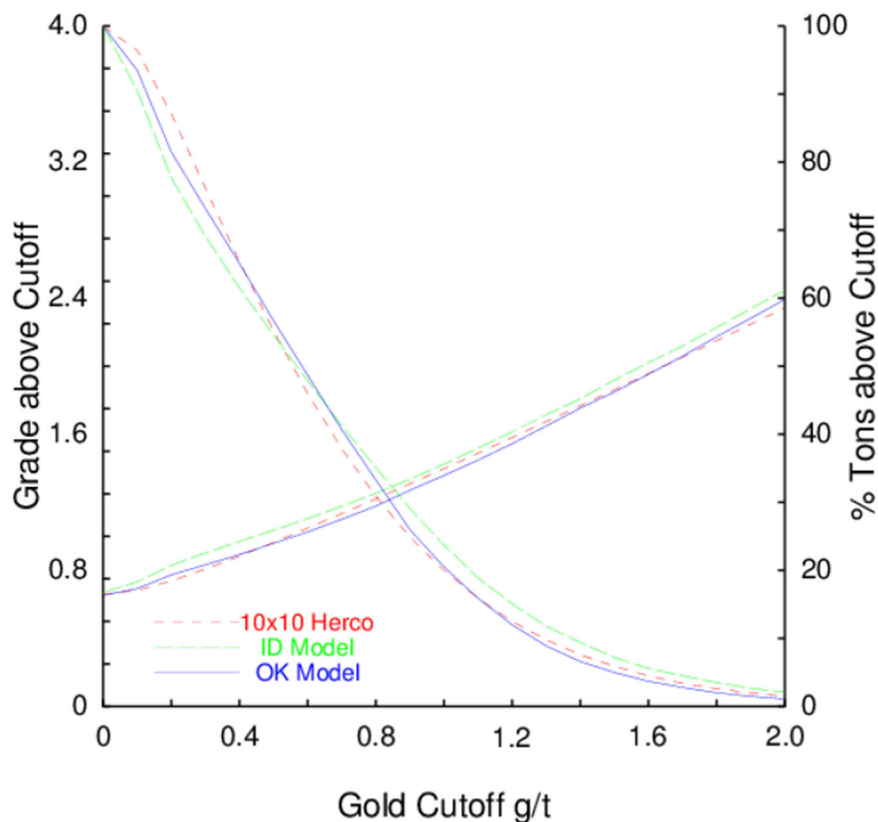
The instruction in 14 (h) does not make it clear how the Qualified Person can provide compliant disclosure. The wording should make it clear that the instruction applies to grade sensitivity tables, if that is the intent, or scenarios in Hermitian correction (HERCO) grade–tonnage curve plots as another common method of illustrating grade sensitivity. Given that there can only be one current Mineral Resource estimate, how can the grade sensitivity tables or HERCO plots be presented in such a way that they do not break that fundamental requirement? Does each row in such a table also have to meet reasonable prospects, or as long as the Qualified Person identifies that the table or figure does not include consideration of reasonable prospects is that acceptable? The grade–tonnage curve truncated so it does not show zero tonnage or zero grade scenarios? The Proposed Modernization Draft Companion Policy is silent on this issue. The instruction does not appear to prohibit disclosure of scenarios in grade sensitivity tables or HERCO plots that are below the break-even cut-off, down to zero cut-off. Similarly, the instruction does not appear to prohibit disclosure of scenarios in grade sensitivity tables or HERCO plots that are very high grade but of such limited tonnage that reasonable prospects cannot be met in any potential mining scenario. Showing scenarios in grade sensitivity tables or HERCO plots can be helpful; what is required is clarity around what will and will not be considered compliant disclosure of these scenarios.

In part (2) of the guidance, to require “must” is to equate the instruction with law. If that is the case, it needs to be in the Form at a minimum.

Secondly, the wording in (2) does not provide clarity. Why the distinction between “all” and “preferred”? The proposed guidance is simplistic, and open to misinterpretation. Many deposits have, for example, zones with different cut-off grades, as a result of oxidation profiles, changes in mineralogy between zones, changes in the type and orientation of the mineralization, different mining methods due to such changes, process recoveries, treatment charges, and stakeholder sensitivities.

The (2) instruction, using the “cut-off grade scenarios” wording, is sub-optimal. This should refer to sensitivity analyses, not scenarios. A further concern is the reference in (2) to “all estimates”. Sensitivities are not different estimates; they are a tool that shows sensitivity of an estimate to changes, typically in the cut-off grade, as a proxy for changes in metal pricing.

What would the Qualified Person have to provide to compliantly meet (2)? That expectation would be useful guidance. Can a Qualified Person still be providing compliant disclosure in the CSA staff view if they include a HERCO plot that has scenarios that do not meet reasonable prospects criteria? E.g.:



Previous Estimates

Part (7) of the guidance is appearing to encourage the provision of non-compliant disclosure, despite the clause being worded as directed at the issuer.

If the information is in a technical report, it has to have a Qualified Person take responsibility for the information, that is a fundamental within the Rule and the Form. Secondly, Mineral Resources and Mineral Reserves are never prepared by the issuer; there is always a Qualified Person named for those estimates, whether the Qualified Person is independent of, or an employee of, the issuer.

Another area of concern is that the CIM do not define what a “previous estimate” is. The CSA staff define a “historical estimate”, and provide pages of instructions on what must be done to present such an estimate, but use “previous estimate” with no definition, no instructions as to how to present, and no guidance. Presumably “previous” is used in the context of:

Existing or occurring before in time or order [Concise Oxford Dictionary]

How does the Qualified Person provide a previous estimate compliantly, since a previous estimate is no longer current? It is superseded, or it would not be labelled as a previous estimate. As the clause points out, a historical estimate is not the same as a previous estimate.

A comparison between a previous estimate and a current estimate can only be meaningful if the key parameters and assumptions for both are presented so the changes can be understood holistically. Since the key parameters and assumptions, and the Mineral Resource and Mineral Reserves on which those assumptions are based are superceded, this is (a) requiring the Qualified Person to endorse two Mineral Resource and Mineral Reserve estimates in the same 3D space as still current, which is not acceptable to the CIM, (b) requiring the Qualified Person to take responsibility for an estimate that they may not have any familiarity with, and (c) meet the instruction in the Rule that information provided by others be verified as still current.

Instructions to the shelf life of a technical report in the Companion Policy:

Continued reference to outdated technical reports or economic projections without appropriate context and cautionary language could result in misleading disclosure.

make it clear that in other contexts, CSA staff already expect that previous estimates could readily be interpreted to be misleading disclosure.

An allowance with no definition and no guidance is another example of CSA staff not thinking through the impact of an instruction. Do the Qualified Person and the issuer have to address all of the content requirements for historical estimate disclosure when disclosing a prior estimate, such that the two terms are treated synonymously for disclosure purposes, just under different names? Who is responsible for the information: the Qualified Person at the time of the prior estimate, or the current Qualified Person?

Guidance would have been helpful to the Qualified Person so that they understood how to present a previous estimate compliantly, since it would appear that the Rule, and the CIM both would prohibit such disclosure.

Metal Equivalent Factors

It is completely unclear why the guidance (3) note is needed. Who would do this?

Not Relevant/Not Applicable

See comment under this point in Instructions.

Missed Opportunity

Item 25 should consolidate the risk and uncertainty discussion. Content requirements should be restricted to only those parameters and interpretations that are within the purview of the Qualified Person, and meaningful for a Mineral Resource estimate.

Item 15: Mineral Reserve Estimates

Proposed Modernization Draft

Form	Companion Policy
<p>If the technical report includes disclosure of mineral reserves, include a discussion of the following, as applicable:</p> <p>(a) the key assumptions, parameters and methods and the application of the modifying factors explaining how a qualified person converted the mineral resources to mineral reserves;</p> <p>(b) if the grade for a multiple commodity mineral reserve is reported as a metal or mineral equivalent, the individual grade of each metal or mineral and the metal prices, recoveries and any other relevant conversion factors used to estimate the metal or mineral equivalent grade;</p> <p>(c) if known, any mining, metallurgical, infrastructure, environmental, permitting, rightsholder and other relevant factors that could materially affect the mineral reserve estimate.</p>	No guidance provided

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Additional Requirements for Advanced Property Technical Reports

Item 15: Mineral Reserve Estimates

If ~~the~~ technical report ~~disclosing~~includes disclosure of mineral reserves ~~must, include a discussion of the following, as applicable:~~

- (a) ~~provide sufficient discussion and detail of~~ the key assumptions, parameters and methods ~~used for a reasonably informed reader to understand how the~~ and the application of the modifying factors explaining how a qualified person converted the mineral resources to mineral reserves;
- (b) ~~comply with all disclosure requirements for mineral reserves set out in the Instrument, including sections 2.2, 2.3, and 3.4;~~
- (c) ~~when~~ if the grade for a multiple commodity mineral reserve is reported as a metal or mineral equivalent, ~~report~~ the individual grade of each metal or mineral and the metal prices, recoveries, and any other relevant conversion factors used to estimate the metal or mineral equivalent grade; ~~and~~
- (d) ~~discuss the extent to which the mineral reserve estimates could be materially affected by if known, any~~ mining, metallurgical, infrastructure, environmental, permitting, rightsholder and other relevant factors that could materially affect the mineral reserve estimate.

Comment

Mineral Reserves Table

A most unusual omission in the Item instructions is the lack of requirement to provide a Mineral Reserve table. It would be reasonable for this section to have required the same presentation of Mineral Reserves as required in Section 14(f) of the Proposed Modernization Draft Form, with the reference to Mineral Resources changed to Mineral Reserves:

14 (f) the mineral reserves reported on a 100% basis and, if the issuer does not hold the mineral reserves on a 100% basis, the percentage of the mineral reserves attributable to the issuer;

While the requirement for a reserve table is covered under Part 2 of the Proposed Modernization Draft Rule, this is one area where duplication of presentation content may be warranted.

Qualified Person Estimating

Part 15(a) should not be requiring a Qualified Person to do the conversion. The steps taken to convert a Mineral Resource to a Mineral Reserve are not necessarily performed by a Qualified Person, and this should not be now inserted as a practice requirement. The resulting estimate is reviewed and signed off by a Qualified Person, but not necessarily prepared by that person.

Factors That May Affect the Mineral Reserves

It would be helpful to clarify what is meant by “if known” in the instructions to 15(c).

(c) if known, any mining, metallurgical, infrastructure, environmental, permitting, rightsholder and other relevant factors that could materially affect the mineral reserve estimate.

Is the intent of the wording to allow the Qualified Person to provide information to the extent that the information is known and available, but not ask the Qualified Person to comment on information that is not available to them, or that the Qualified Person could not be expected to know for reasons such as confidentiality? The Qualified Person should not need to go to the Companion Policy to find that there is an allowance there for information required under Items 4 (d), (e), (g) and (h) to be omitted if it is confidential. This should be part of the Form instruction.

Who or what is a rightsholder? See discussion on this point in Item 4, and the definition in that Item. Is that the context in which the Qualified Person should be determining disclosure? It is a long way from the concept of the materiality and what would cause an investor to buy, trade or sell shares. Rightsholder must be defined; without it, the Qualified Person will never be able to be certain that compliant disclosure for that entity is feasible, or what information needs to be provided.

The requirement to discuss rightsholders is setting an issuer, and its Qualified Persons, up for criticism if a possible rightsholder group is not identified in the technical report. It can upset those who were not included as much as upsetting those rightsholders who have been identified. It

should be seen to reside with the issuer's management to address through the issuer's continuous disclosure.

The end of the sentence in 15 (c) ties the request to materiality, which is a known, clear-cut threshold. However, the content requirement is asking the Qualified Person to provide commentary on information that is outside the purview of a Qualified Person (e.g. rightsholder, environmental), and, in terms of professional practice, outside their discipline area. CSA staff should have been aware that their embracing being a tool of professional association enforcement could not simultaneously then also require a Qualified Person to provide opinions that are outside the Qualified Person's area of practice.

Risks, including environmental, social, and permitting risks, are rightly seen by both Qualified Persons and an issuer's management to be within management's purview. Issuers communicate risks through MD&As, news releases, AIF and other disclosure documents. Issuers and investors do not solely rely on risks being identified in the technical report, since the technical report is a snapshot in time view of a project, is only required at certain corporate or project milestones, and is only episodically updated. Risks to the project can change significantly between a technical report and its update. It would be more misleading for the Qualified Persons in the technical reports to be the only source of identification of risks to the project, or the Mineral Resource or Mineral Reserve estimates. Unlike the technical report, the issuer's other disclosures to investors are done on a timely basis.

There may be no specific risks known to the Qualified Person that meet a materiality threshold in the view of the Qualified Person. There may well be a number of general risks, and these are typically identified. Those risks are likely to be applicable to many deposit types and study stages. Just because a study is based on more detailed information does not necessarily mean that the risks facing the project have changed. Nor does completion of a particular project evaluation stage necessarily result in identification of any more specific risks than an earlier study stage.

Many technical reports only provide general disclosure about potential risks and uncertainties, simply because that is all that is known for that project stage. Many projects, even though they are for different commodities and different deposit types, also face exactly the same risks. Just because those risks may apply to all cost estimates doesn't mean that they are not real risks or uncertainties.

The CSA staff requirements in Item 14 and Item 15 were being addressed, under the 2011 edition, by Qualified Persons simply stating that they were "not aware of any" risks. Nothing in the revised and added wording in the Proposed Modernization Draft addresses this as a potential source of misleading information. Instead, the Proposed Modernization Draft doubles down on the Qualified Person showing bad behaviour if the Qualified Person doesn't somehow generate set of risks and uncertainties that can only be applied to the single project that is the subject of the technical report and never applied to any other project.

The requirement in 15(c) is also counter-productive. Content requirements need to be restricted to only those parameters and interpretations that are within the purview of the Qualified Person, and CSA staff should abandon the ludicrous position that there will always be a set of risks and uncertainties that can only be applied to the single project that is the subject of the technical report and never applied to any other project. Major risks are common to the industry, across

jurisdictions, projects, studies, and commodities. Just because those risks are stated for different projects, again, does not invalidate them as being project-specific in each case.

Relevant Factors

Why would relevant factors required to be discussed for Mineral Reserves omit legal, title, taxation, socio-economic, marketing, and political factors but require discussion on these areas for Mineral Resources and cost estimates?

Mineral Reserves: if known, any mining, metallurgical, infrastructure, environmental, permitting, rightsholder and other relevant factors that could materially affect the mineral reserve estimate.

Mineral Resources: if known, any environmental, permitting, legal, title, taxation, rightsholder, socio-economic, marketing, political and other relevant factors that could materially affect the mineral resource estimate;

Cost estimates: the extent to which any known environmental, permitting, legal, title, taxation, rightsholder, socio-economic, marketing, political or other relevant factors could materially affect the capital and operating cost estimates

Why are these considerations not relevant to the Mineral Reserves, particularly marketing since Mineral Reserves demonstrate economic viability. Why does the Mineral Reserves discussion require discussion of mining, metallurgical, and infrastructure factors, but not the Mineral Resources, when assumptions in those discipline areas are equally likely to be relevant factors that may affect the Mineral Resource estimates?

Why would relevant factors required to be discussed for Mineral Reserves omit taxation, but require taxation discussion for Mineral Resources? Mineral Reserves include the modifying factors such as taxes; Mineral Resources do not.

It is concerning that the CSA staff apparently do not have a firm grasp of the differences between the confidence classifications, what affects estimates, and what constitute the technical and economic factors considered when estimating Mineral Resources, and the modifying factors used to convert the Measured and Indicated Mineral Resources to Mineral Reserves.

Not Relevant/Not Applicable

See comment under this point in Instructions.

Missed Opportunity

Part 15(a) is repeating a content requirement that is already in the Mineral Reserves definition, where the application of modifying factors is already required. It is also requiring, in effect a repetition of all of the information provided in Items 16 to 22, since all of that content represents modifying factors. Can the Qualified Person refer to these sections to compliantly meet the content requirements in (a)? If so, that would be helpful guidance in the Companion Policy.

Item 25 should consolidate the risk and uncertainty discussion; content requirements need to be restricted to only those parameters and interpretations that are within the purview of the Qualified Person.

Item 16: Mining Methods

Proposed Modernization Draft Form

Form	Companion Policy
<p>Discuss the current or proposed mining methods and provide a summary of the relevant information used to establish the amenability or potential amenability of the mineral resources or mineral reserves to the proposed mining methods. If relevant, include the following, as applicable:</p> <p>(a) geotechnical, hydrological and other parameters of the mine or pit designs and plans;</p> <p>(b) production rates, expected mine life, mining unit dimensions, strip ratio, mining dilution and mining loss factors used;</p> <p>(c) requirements for stripping, underground development and backfilling;</p> <p>(d) the necessary type of mining fleet and machinery used or to be used.</p>	<p>Scoping studies, pre-feasibility studies, feasibility studies and life of mine plans generally analyse and assess the same geological, engineering and economic factors with increasing detail and precision. Therefore, the criteria for Items 16 to 22 can be used as a framework for reporting the results of all four studies. In situations where a mineral project does not have mineral resources or mineral reserves but the mineral project is in production, or was previously in production, we expect disclosure will be provided under Items 16 to 22, where applicable.</p> <p>For a mineral project in production or operation, we expect the technical report to disclose the mining methods currently in place.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 16: ~~— Mining Methods —~~

Discuss the current or proposed mining methods and provide a summary of the relevant information used to establish the amenability or potential amenability of the mineral resources or mineral reserves to the proposed mining methods. ~~Consider and, where~~If relevant, include the following, as applicable:

- (a) geotechnical, hydrological and other parameters ~~relevant to of the~~ mine or pit designs and plans;
- (b) production rates, expected mine life, mining unit dimensions-, strip ratio, mining dilution and mining dilution loss factors used;
- (c) requirements for stripping, underground development and backfilling; ~~and~~

(d) ~~required~~the necessary type of mining fleet and machinery;

(d) ~~INSTRUCTION: Preliminary economic assessments, pre-feasibility studies, and feasibility studies generally analyse and assess the same geological, engineering, and economic factors with increasing detail and precision. Therefore, the criteria for Items 16 to 22 can~~ used or to be used ~~as a framework for reporting the results of all three studies.~~

Comment

Strip Ratios

Part 16 (b) continues the CSA staff practice in the Proposed Modernization Draft of requiring information that is not in line with industry practices. Strip ratios are a common term for open pit mines; it is not common to see the term in underground operations. It would have been better to have asked for waste rock to mineralization/ore ratio, if that is the information that is being required. It is still unclear how a waste rock to mineralization/ore ratio would apply or be calculated, for a block cave operation.

Backfill

Part 16 (c) is commonly an area of confusion during legal reviews. Qualified Persons understand what is being asked, but legal counsel performing compliance reviews do not. As only the first requirement, stripping, is applicable to open pit mines, legal review constantly comes back with a non-compliance comment when neither the underground development nor backfill requirements are discussed in a technical report that assumes open pit operations. Clarification for legal would have been helpful and is a missed opportunity.

Equipment

Part 16(d) identifies “necessary” as a requirement, over and above requiring, in the introduction, what is “relevant” to be provided. This suggests that the CSA staff see the instructions necessary as somehow different to relevant, but neither are defined. What level of detail will be required to meet the “necessary” part of the equipment provision instruction to compliantly meet both the relevant and necessary provisions?

Item 16-22 Instructions, Companion Policy

How is a cost estimate able to be assembled absent a Mineral Resource or Mineral Reserve estimate, since so many of the cost estimate elements have the tonnage and grade estimates as the key basis?

If the project is a site undergoing, or has undergone reclamation, what is the Qualified Person expected to provide in terms of cost estimates and cashflows?

There are numerous examples of brownfields sites with a long history of previous production from closed or exhausted open pit and underground operations. Do these now also require all of the information in Items 16–22 to be provided?

Telling the Qualified Person to state the mining method is not needed; if that is a content requirement it should be in the Form. The sentence is not guidance and should be removed.

Not Relevant/Not Applicable

See comment under this point in Instructions.

Missed Opportunities

This is a missed opportunity to fill a major gap in the 2011 edition. In that edition, a production schedule was only required when providing a cashflow analysis. Producing issuers, exempt from that requirement, also were exempt from providing a production schedule. However, a Qualified Person cannot meet (b), (c), or (d) without a production schedule, and it should have been clear that there was no reasonable basis for the information provided to meet (b), (c), or (d) without that. A production schedule should be part of the content requirements in Item 16.

Item 17: Processing Methods

Proposed Modernization Draft

Form	Companion Policy
Discuss reasonably available information on test or operating results relating to the recoverability of the valuable component or commodity and amenability of the mineralization to the proposed processing methods. If relevant, include the following, as applicable: (a) a description or flow sheet of any current or proposed process plant; (b) plant design, equipment characteristics and specifications; (c) current or projected requirements for energy, water and process materials.	No guidance provided

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Item 17: ~~Recovery Processing Methods~~

Discuss reasonably available information on test or operating results relating to the recoverability of the valuable component or commodity and amenability of the mineralization to the proposed processing methods. If relevant, include the following, as applicable:

~~amenability of the mineralization to the proposed processing methods. Consider and, where relevant, include~~

- (a) a description or flow sheet of any current or proposed process plant;
- (b) plant design, equipment characteristics and specifications, ~~as applicable; and;~~
- (c) current or projected requirements for energy, water and process materials.

Comment

Toll Treatment

This section needs clarification as to whether content such as toll treatment at third-party facilities can be discussed under Item 17. Toll treatment is becoming a more common option in mining studies, as issuers and their study managers seek cost reductions. Formerly, this type of information would have been presented as part of Item 23 Adjacent Properties in the 2011 edition. However, adjacent properties as it was presented in Item 23 has been struck out.

Amenability to Process Methods

The addition of the last clause in the first paragraph is likely to try and address a concern that the SEC staff also have in S-K 1300, that the various elements can actually be processed and recovered together. For example, copper should not be part of the recoverable assumptions in

the process facility if a gold heap leach is proposed, since copper is a contaminant in the leach process.

It may also be there to address the use of novel processes where most of the information is proprietary to the patentholder. It could also have been designed to include processes that have not been used in commercial production for one element but are well-known for other elements (e.g. heap leach for vanadium; bacterial digest for copper).

Not Relevant/Not Applicable

See comment under this point in Instructions.

Item 18: Mineral Project Infrastructure

Proposed Modernization Draft

Form	Companion Policy
Summarize applicable infrastructure and logistics necessary for the mineral project. If relevant, include the following, as applicable: (a) roads, rail, port facilities, power and pipelines; (b) leach pads, waste dumps and stockpiles; (c) tailings storage facilities; (d) site monitoring and water management requirements during operations and after closure.	No guidance provided

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 18:— Mineral Project Infrastructure—Provide a summary of

Summarize applicable infrastructure and logistic requirements logistics necessary for the mineral project, which could. If relevant, include the following, as applicable:

- (a) roads, rail, port facilities, ~~dams, dumps, stockpiles, leach pads, tailings disposal,~~ power and pipelines, ~~as applicable~~;
- (b) leach pads, waste dumps and stockpiles;
- (c) tailings storage facilities;
- (d) site monitoring and water management requirements during operations and after closure.

Comment

Mineral Project

This is an area where it is not clear that the change in the meaning of “mineral project” has been sufficiently considered. It would appear to restrict the information required to only that of the infrastructure within the mineral tenure bounds. It would appear that the Qualified Person does not need to provide information on infrastructure that is not within the mineral claims. What this means for compliantly reporting infrastructure information for projects with significant off-site infrastructure well removed from the actual mine site is not clear: e.g. ports, concentrate pipelines etc. There is no reasonable guidance provided on this in the Proposed Modernization Draft Companion Policy.

Logistics

The introductory sentence in the instructions does not make it clear how far Qualified Person would have to go to adequately summarize the “logistics necessary” requirement in a compliant manner. Logistics typically mean:

How resources are acquired, transported, and stored to the final destination.

Since this definition would cover everything transported to the mine, by the issuer and its suppliers, what would need to be provided to address “relevant”? What would be non-applicable? It is not clear what level of detail will be required to meet the “necessary” part of the logistics instruction either.

Not Relevant/Not Applicable

See comment under this point in Instructions.

Missed Opportunities

There is yet another missed opportunity to streamline the Form in this Proposed Modernization Draft by not requiring repetition of content already required in Item 5 in this Item. Item 5 already requires access and roads, as well as power. All of the content in (a) should be Item 5 content, since all of this would be as relevant to an early stage project as an operating mine.

It would have been helpful to have provided guidance on separation of content required in Item 18 and that required in Item 20. One way of doing that would have been to require the actual built infrastructure discussion in Item 18, and site monitoring in Item 20. Part (d) is an example of where the content should have been split, with the water management infrastructure part of Item 18, and the monitoring required to meet regulatory requirements in Item 20.

Item 19: Market Studies and Contracts

Proposed Modernization Draft

Form	Companion Policy
<p>If relevant, include the following, as applicable:</p> <p>(a) a summary of available information concerning markets for the issuer's production, including the nature and material terms of any agency relationships;</p> <p>(b) a discussion of the nature of any studies or analyses completed by the issuer on commodity price projections, product valuations, market entry strategies or product specifications and confirmation that a qualified person has reviewed the studies or analyses and that the results of the studies or analyses support the assumptions in the technical report;</p> <p>(c) a list of contracts required to develop the mineral project including, for greater certainty, mining, concentrating, smelting, refining, transportation, sales and hedging, handling, and forward sales contracts or arrangements, a list of those entered into and a discussion of whether the terms, rates or charges are within industry norms.</p>	<p>The discussion of market studies should clearly explain any impacts that the mineral project that is subject of the technical report may have on the market. Discussion under this item should also include identification of any circumstances unique to that market.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 19: Market Studies and Contracts

Provide If relevant, include the following, as applicable:

- (a) a summary of ~~reasonably~~ available information concerning markets for the issuer's production, including the nature and material terms of any agency relationships. ~~Discuss the nature of any studies or analyses completed by the issuer, including any relevant market studies, commodity price projections, product valuations, market entry strategies, or product specification requirements. Confirm that the qualified person has reviewed these studies and analyses and that the results support the assumptions in the technical report;~~
- (b) ~~Identify~~ a discussion of the nature of any ~~contracts material to~~ studies or analyses completed by the issuer on commodity price projections, product valuations, market entry strategies or product specifications and confirmation that are a qualified person has reviewed the studies or analyses and that the results of the studies or analyses support the assumptions in the technical report;
- ~~(b)(c)~~ a list of contracts required for property development to develop the mineral project including, for greater certainty, mining, concentrating, smelting, refining, transportation, handling, sales and hedging, handling, and forward sales contracts or arrangements. State which contracts are in place and which are still under negotiation. For contracts that are in place, discuss, a list of those entered into and a discussion of whether the terms, rates or charges are within industry norms.

Comment

Agency Relationship

What an "agency relationship" is, was not defined or explained in the 2011 edition, and nor is it in the Proposed Modernization Draft. If a term is neither defined nor guidance provided as to how to address the content requirement, it cannot be complied with.

Does it mean:

Agency relationship: principal and agent where principal gives agent legal permission to act on behalf of the principal?

Does the requirement cover any agreement? Is it only intended to apply to an issuer's subsidiaries, for example where one subsidiary produces a product, and another subsidiary in a different jurisdiction sells the product? If this is the intended meaning, how does this differ from the requirement to discuss contracts in (c)?

Market Studies

The wording in 19 (b) does not reflect a significant portion of industry practice, particularly for those commodities that are not freely traded with restricted markets. In many cases the issuer

does not complete market studies themselves (“studies or analyses completed by the issuer”); they source market studies from reputable experts in specific commodities. The wording should be changed to read studies or analyses completed by or on behalf of the issuer”.

The Proposed Modernization Draft Companion Policy goes beyond (b) requirements, since it, under the pretext of being guidance, but actually written as an instruction, states:

The discussion of market studies should clearly explain any impacts that the mineral project that is subject of the technical report may have on the market.

The guidance provided for market studies is problematic. This is not within the purview of the Qualified Person, and should never have been asked of the Qualified Person. In addition, the clause is not providing any guidance, it is requiring information provision as if it were part of the Rule.

The allowance for Qualified Persons to rely on experts for marketing information has been removed without industry consultation. This is a major issue, but requiring the Qualified Person to now comment on market impact of a project goes a step further into disclosure requirements.

Removing the allowance for the Qualified Person to rely on marketing experts and disclaim responsibility for the information is putting the Qualified Person in an untenable position. Information on non-freely traded commodities (e.g. critical minerals, battery minerals, industrial minerals, gemstones) such as the price forecasts, supply and demand forecasts, market entry strategies, competitor analysis, and the different product premiums that can be paid on certain commodity forms, is not prepared by Qualified Persons. This information is typically sourced from commodity analysts and specialists (e.g. CRU, Benchmark Intelligence, CPM Group). This type of expert information literally can make or break a project, particularly the market entry strategy formulated. A Qualified Person is not in a position to verify the market analyst information from commodity analysts and specialists. The research such companies do is extensive, and is proprietary. It is industry practice to rely on such experts, with good reason.

If a commodity is freely-traded, then production of that commodity is likely to have no market impact. What expectation is there of the Qualified Person to compliantly quantify the impact in that situation?

If production of a particular commodity is likely to have a market impact, then any commentary around that impact will require disclosure of the issuer’s planned market entry strategy. There is no consideration that in the case of non-freely traded commodities, divulging both the impact on the market and the market entry strategy effectively means the project will not progress. This is a counter-productive requirement.

Contracts

Part (c) is a known issue for industry. While material contracts are meant to be filed on SEDAR, issuers do not file them, because so many contracts include confidential information. The Qualified Person should not be asked to provide a specific “list of contracts required to develop the mineral project” given how much of the information is likely to be confidential. The requirement should be to talk generally as to the types of contracts that will be in place and the general discipline or operations areas that will be covered.

For Greater Certainty

There is no “for greater certainty” that can be implied or should be required when dealing with forecasts and interpretations that form a market study, particularly the aspects of “commodity price projections, product valuations, and market entry strategies”.

From the perspective of the Qualified Person preparing a technical report and the issuer for whom the technical report will provide support for much of its disclosure on that material property, it is not clear how they would demonstrate that they have met the criterion of “for greater certainty” to the satisfaction of a Canadian regulator when addressing the content requirements of, in particular, market entry strategies for non-freely traded commodities.

See comment on this point in Illustrations.

Not Relevant/Not Applicable

See comment under this point in Instructions.

Item 20: Environmental Studies, Permitting and Regional or Local Impact

Proposed Modernization Draft

Form	Companion Policy
<p>Discuss available information on environmental, permitting and other regional or local factors concerning the mineral project, including, in each case the source of the information. If relevant, include a list of the following, as applicable:</p> <p>(a) the date of any environmental study and a discussion of any known environmental issues that could impact the issuer's ability to extract the mineral resources or mineral reserves;</p> <p>(b) regional, local or other permitting requirements or obligations and plans for the mineral project including, for greater certainty, the status and date of any permit application and any known requirements or obligations to post performance or reclamation bonds;</p> <p>(c) the status and dates of any negotiations or agreements entered into with Indigenous Peoples, rightsholders or communities.</p>	<p>The information disclosed in this item should include the dates of any current (meaning in place at the effective date) reports, documents, studies, permits or permit status.</p> <p>Along with the date, titles of any reports, documents, studies or permits should also be disclosed to ensure the intended audience can understand that these documents may have been superseded even if the remainder of the technical report remains current.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 20: Environmental Studies, Permitting and ~~Social or Community Impact~~—Discuss reasonably available information on environmental, permitting and social or community factors related to the project. Consider and, where relevant, include Regional or Local Impact

~~a summary of the results~~ Discuss available information on environmental, permitting and other regional or local factors concerning the mineral project, including, in each case the source of the information. If relevant, include a list of the following, as applicable:

- (a) the date of any environmental ~~studies~~ study and a discussion of any known environmental issues that could ~~materially~~ impact the issuer's ability to extract the mineral resources or mineral reserves;
- ~~(b) regional, local or other permitting requirements or obligations and plans for waste and tailings disposal, site monitoring and water management both during operations and post mine closure;~~
- ~~(c)~~ (b) the mineral project ~~permitting requirements~~ including, for greater certainty, the status and date of any permit ~~applications~~ application and any known requirements or obligations to post performance or reclamation bonds;
- ~~(d)~~ (c) a discussion of any potential social or community related requirements and plans for the project and the status and dates of any negotiations or agreements entered into with local Indigenous Peoples, rightsholders or communities; and,
- ~~(e) a discussion of mine closure (remediation and reclamation) requirements and costs.~~

Comment

Available Information

Almost all of the rewritten section is of significant concern.

Firstly, in the introduction, the Qualified Person is told to “Discuss available information on environmental, permitting and other regional or local factors”. There is absolutely no filter on this, it is explicitly saying there is no information if its available, that can be omitted. “Available information” discussion cannot be provided by the Qualified Person while simultaneously meeting the summarization instruction. There has to be a materiality filter to the information, not a relevant filter, and certainly not this broad instruction for everything to be provided.

What would “discussion” entail? There is no guidance on how the Qualified Person can meet the instruction compliantly, given “available information”. If all of the available information is provided, what is there to discuss?

For an instruction that already requires “available information”, requiring “in each case the source of the information” is also setting the Qualified Person up to fail, since they cannot do this while simultaneously meeting the summarization instruction.

The definition of “current” in this clause has changed from that used throughout the Rule and Form, and previously applied in the Companion Policy. It is being applied with the criteria that current = in place at the effective date. This definition will require inclusion of superceded reports, documents, studies, and permits, and may also end up including superceded information on the status of some or all of the permits. It is not clear why a new definition and usage of the term “current” is warranted.

Environmental Studies

It should also be subject to a materiality filter, as the instruction for “date of any environmental study” opens up a huge list of likely studies, many of which will be interim, or provisional.

The instructions in Item 20, and the guidance paragraphs, are in direct contravention to the instruction to the Qualified Person that a technical report is to be a summary document. Qualified Persons are again put in an impossible position. They can meet one, but not both instructions.

The requirement should have been directed toward providing only material disclosure for what is simply one amongst many modifying factors that are considered by the Qualifying Person when converting Mineral Resources to Mineral Reserves. The CSA staff role revolves around mining disclosure; it does not require the CSA staff to adopt a new persona as adjuncts to the roles of the federal and provincial environmental regulators.

Reports and documents prepared as part of social baseline, particularly studies that deal with culturally sensitive matters are not appropriate to be listed in a technical report. There are major sensitivities that are common around aspects of agreement and impact benefit negotiations, locations of endangered species, particularly breeding areas, native title, cultural and traditional knowledge and traditional use studies that pertain to cultural heritage. These are not studies that are pabulum for the masses, they are a mark of the way respect is shown by the issuer and its representatives; they may have certain information but it is not disseminated.

The list of current reports, documents, studies, permits or permit status for a major mining project runs into literally hundreds of documents, many of which will be interim, or provisional. The sheer data dump that will be required in the technical report in an attempt to be compliant with the instruction and this guidance is not going to provide any additional clarity; in fact, it is more likely than not that the dump will lead to investors reading past, not reading, the disclosure. The Qualified Person should have been allowed to use judgement and a materiality filter on what was provided.

The requirement in the Form and this guidance also assumes that the Qualified Persons will validate and verify all of these reports, documents, studies to be current in all aspects.

Permits

Part 20 (b) has a number of areas to unpick.

A list of the material permits is of use to investors, as is the information as to whether they are in the process of having permit applications drafted, whether the applications have been lodged, or whether selected permits have been granted. All available information on permitting, however, as per the instruction is not reasonable.

What would constitute an “obligation” for a mineral project, if regulatory requirements are something other than obligations? Does this refer to Impact Benefit Agreements, accommodations made to advance local stakeholder objectives such as better healthcare?

What are the “plans” in part 20 (b), since plans is expressly linked to mineral project, and appears not to be linked to regulatory requirements? There is no clarity provided as to what this would cover. Does this mean all, or any of execution, production, mine, waste management, sensitive species management, monitoring, marketing plans? This may be able to be addressed for operating mines, but will be difficult for early-stage mining studies when there has been insufficient work completed to know what plans will be required, if the plan definition covers any of those plan types just listed.

The requirement to provide “the status and date of any permit application” will require significant detail. “Any” is a ludicrous requirement for projects that commonly have local, provincial/state, and federal permits to obtain. Many projects have in excess of 500 permits to cover all aspects of planned construction and operations once all governmental requirements are met; others have considerably more. A summary document is not the location for “the status and date of any permit application”.

The second paragraph in the guidance on this topic contradicts the first. Superseded documents are not current documents as specified in the first paragraph. Superseded reports do not help to, as stated by CSA staff in postings on the Proposed Modernization Draft, keep a technical report current for longer.

Closure

Part 20(b) should not conflate permits with closure. Closure should have been a serious part of the content requirements, and its own content requirement. Closure is more than just whether or not there is an obligation to post a bond.

Negotiations and Agreements

Part 20 (c) is simply wrong to ask of a Qualified Person in a technical report. Prescriptive disclosure requirements will never be able to address the complexity surrounding project evaluation and development in areas of the rights of Indigenous Peoples. Nor will such requirements be able to address each individual circumstance across a wide variety of deposit types, mining and process methods, and infrastructure types and locations. Rights of Indigenous Peoples may be well understood in certain contexts, and are increasingly covered by at least drafts of rights documents.

For example, it may be clear as to what consultation and rights are expected in the context of an early-stage exploration play, where no destructive testing is planned. It may also be reasonably understood as to what consultation and rights are expected in the context of initial destructive testing. Work programs beyond that, however, may well require concerted and dedicated consultation and negotiation, which may be in the preliminary stages, or not yet have commenced.

The onus on the Qualified Person to explain how the “rights of Indigenous Peoples, as defined in the mineral project’s jurisdiction” requirement in Item 4 in the Proposed Modernization Draft Companion Policy is likely to entail some comparison back to Canadian norms for clear

understanding of the jurisdictional requirements, otherwise the context of the information may be interpreted to be “potentially misleading”. This is again completely outside the purview of a Qualified Person.

Social consultation, including consultation with Indigenous Peoples, consists of constructing a delicate, fragile network of understanding and mutual obligations between communities and issuers, where both parties have to be able to express interests, frustrations, and concerns, and negotiate to a point where all parties are, if not completely satisfied, at least able to agree to work together under a mutually-agreed upon set of objectives and frameworks for achieving the objectives. Technical reports are not a good repository for social and information as they are designed as snapshot in time overviews of a project at a milestone reporting event. They cannot provide the level of detail that is needed to inform investors of real-time and ongoing negotiations, discussions, and changes as they are only current as at their effective date, and can remain current for a number of years. Current disclosure on social information is an issuer obligation, using avenues available through its continuous disclosure obligations, supplemented by information provided through social media, and its website. Discussion of the rights of Indigenous Peoples falls within the same parameters, that maintaining updated and current disclosure on social information is an issuer obligation and best managed by the issuer.

Informed prior consent is considered by many indigenous groups to be a type of informal permit to conduct work. However, in many cases, informed prior consent consists of a combination of prior consultation and ongoing dialogues; that concept is not the same as a signed agreement or formal permit document with a permitting authority. It is, however, an important item of public perception for the issuer to have obtained.

Information on the rights of Indigenous Peoples is not typically within the purview of a Qualified Person. These data types are collected by, and interpreted by experts, but experts who generally do not meet the narrow definition of a Qualified Person in NI 43-101. By their nature, matters relating to Indigenous Peoples fall within ESG sphere, and focus on judgment and interpretation. They are not on the same basis as the scientific and technical information used by Qualified Persons for other areas of mining project evaluation.

The biggest risk requiring a definitive approach as to what is under negotiation, which whom, and what is agreed upon is that this content alone will jeopardize discussions with some stakeholders. The status might be correct on the date the issuer gave the Qualified Person the information, but as negotiations and negotiating positions can alter rapidly and significantly, the technical report as a snapshot in time is not the correct place for the information; it stale-dates too quickly. The correct place is in management MD&A and continuous disclosure, where changes and updates can be rapidly communicated.

Even a general statement may be an issue in a technical report, if stakeholders think that statement is the issuer minimizing concerns, playing down issues, or claiming progress toward a resolution in negotiations.

Rightsholder

See comment on this point in Item 4.

For Greater Certainty

The permit application is based on imperfect information, because of a number of factors, including the expense and practicality considerations that are involved in data collection, the small sample size available for interpretation and test work, the need to extrapolate from the data collected, the amount of data interpretation required, and the number of inputs that require predictive assumptions, and the attitude of stakeholders to mining generally, and the project in particular. There is no “for greater certainty” that can be implied or should be required when dealing with forecasts and interpretations.

If there is something the mining industry is certain of, it is that they cannot be certain of the status of any permit application. They can be sure they have submitted the application, but cannot predict what additional studies or consultation will be required prior to a permit decision to grant is made. They also cannot predict what information will result in a permit refusal.

From the perspective of the Qualified Person preparing a technical report and the issuer for whom the technical report will provide support for much of its disclosure on that material property, it is not clear how they would demonstrate that they have met the criterion of “for greater certainty” to the satisfaction of a Canadian regulator.

See comment on this point in Illustrations.

Not Relevant/Not Applicable

See comment under this point in Instructions.

Missed Opportunities

There was a missed opportunity to remove the heading wording “impact”, which had been introduced in the 2011 edition, which implies, even before the Qualified Person starts writing, that the mining industry is a force for the bad:

“impact” a marked effect or influence [Concise Oxford Dictionary]

A substitution of “impact” with a term such as “considerations” or even the term “factors” as used in the introduction sentence would have been more helpful.

It should not be assumed that any interaction with regional or local groups, including Indigenous Peoples is automatically negative, with only risks and uncertainties as potential outcomes. This level of pessimism is not reflective of current industry best practice approaches to discussions with regional or local groups, including Indigenous Peoples. There have been, and continue to be, examples of successful partnerships between industry and all of these groups.

Requiring the source of information in both the instruction and in part (a) is unnecessary repetition since this content should only be required in Item 27, not in both places. This was a missed opportunity for consolidating the same content in different Item instructions such that it was only required once, under one Item.

Part 20 (a) requires unnecessary duplication. Lists of documents, studies, reports and memoranda should be requested once, in Item 27. There should not be numerous places in the technical report where such information is required content.

There was a missed opportunity to remove the repetition in content requirements in Item 4 where those are also required in Item 20.

Item 21: Capital and Operating Costs

Proposed Modernization Draft

Form	Companion Policy
<p>Provide the following concerning the mineral project, as applicable:</p> <p>(a) in tabular form, the capital and operating cost estimates and an explanation of the accuracy of the estimates;</p> <p>(b) the key assumptions, parameters and an explanation of the basis for the cost estimates, including the related contingency;</p> <p>(c) an explanation of any cost estimate classification used and the level and accuracy of each important element;</p> <p>(d) the costs related to closure, remediation and reclamation;</p> <p>(e) the extent to which any known environmental, permitting, legal, title, taxation, rightsholder, socio-economic, marketing, political or other relevant factors could materially affect the capital and operating cost estimates.</p>	<p>Disclosure under this item should be made, even if the mineral project in production does not have mineral resources or mineral reserves. A technical report for a mineral project in production (or operation) may disclose actual costs rather than estimates when available. If disclosing actual costs, consider reconciling to the most recent estimated costs such that the intended audiences may see differences between forecasts and actuals.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 21: ~~Capital and Operating Costs~~

Provide ~~a summary of the following concerning the mineral project, as applicable:~~

- ~~(a) in tabular form, the capital and operating cost estimates, with the major components set out in tabular form. Explain and justify and an explanation of the accuracy of the estimates;~~
- ~~(b) the key assumptions, parameters and an explanation of the basis for the cost estimates, including the related contingency;~~
- ~~(c) an explanation of any cost estimate classification used and the level and accuracy of each important element;~~
- ~~(d) the costs related to closure, remediation and reclamation;~~
- ~~(e) the extent to which any known environmental, permitting, legal, title, taxation, rightsholder, socio-economic, marketing, political or other relevant factors could materially affect the capital and operating cost estimates.~~

Comment

Accuracy

It is not an industry practice to “explain the accuracy”. This is another example of CSA staff not understanding industry practice. The practice is to “state” the accuracy. This is all that should have been required in 21 (a). A summary document, if the requirement to summarize is, in fact, the major criterion for determining compliance of a technical report, cannot accommodate the detailed explanations involved in arriving at an estimation of the accuracy. In certain instances, to ensure understanding of the individual estimate, the sometimes abstruse explanations of the probabilities of achieving that accuracy, and how that was determined, and the maturity level of project definition deliverables that has been completed to support that accuracy, would also need to be provided. This is a level of detail well outside the “summary” concept of a technical report.

Contingency

Part 21 (b) is furthering an SEC requirement in S-K 1300 that was completely outside industry practice in most discipline areas. Industry does assess the contingency in a capital cost estimate. Industry does not, and never has, assessed contingency on operating costs for most disciplines. It is not clear where or why the SEC staff adopted a contingency requirement on operating costs. It may have come from a CIM document, where in the process discipline in the CIM Practice Guideline for Mineral Processing, as an appendix, the following table appears. The table shows the estimation accuracy and contingency values down the left hand side, and across the top, in order from left to right, are columns for each of the preliminary economic assessment (scoping study), pre-feasibility study and feasibility study.

Level of Capital Expenditures (Capex) Reference: AACE Recommended Practice No. 47R-11: Cost Estimate Classification System – As Applied in the Mining and Mineral Processing Industries	Capex is by factored comparison to similar project in similar location considering site location impacts (e.g. elevation, geography). Capex may also be by major equipment quotes and factoring from this basis. Accuracy should be from: -20% to -50% and +30% to +100%.	Capex is determined with major equipment by budgetary quotations, minor equipment from database, and installation costs by factoring. The basis of estimate is developed from database information. Material take-offs developed or indicated as not developed. Accuracy should be from: -15% to -30% and +20% to +50%.	Capex is determined with major and minor equipment by firm supplier quotations, and installation costs by material take-offs. The basis of estimate is developed from local information. Construction and logistical execution plans are developed and support the design. Accuracy should be from: -10% to -20% and +10% to +20%.
Level of Operating Costs (OPEX) Reference: AACE Recommended Practice No. 47R-11: Cost Estimate Classification System – As Applied in the Mining and Mineral Processing Industries	Operating cost can be developed by benchmarking for very early-stage studies. Alternatively, or where a higher level of resource category above inferred is being considered, an effort to derive major costs (labour, power, reagents, etc.) should be developed for the project location. Accuracy should be from ±25 to ±35%.	Operating costs are developed from testwork (reagent and energy consumption) and local or database costing of labour and reagents relevant to the locale. Cost of power is an especially important local cost, and its derivation should be identified and described. Operating costs include sustaining capital. Accuracy should be from ±25 to ±15%.	Process operating costs are developed from testwork (reagent and energy consumption) and using local costs for labour and reagents. Cost of power is an especially important local cost, and its derivation should be identified and described. Individual influence of major operating costs components identified. Supply costs are from creditable, preferably local suppliers capable of providing the supplies. Supply costs from remote suppliers include supply-chain costs, duties, freight, taxes, etc. Labour rates for locals and expatriates should be realistic. Influence of ore variability on operating costs is identified. Operating costs include sustaining capital. Influence of variable operating costs in the financial model is identified. Accuracy should be from ±15 to ±10%.

While this may be justified in some process scenarios, it is still not commonly accepted industry practice in other discipline areas. The requirement for contingency on operating costs should be removed from the Proposed Modernization Draft.

Cost Estimate Classification

It is not clear what 21 (c) is requiring to meet “cost estimate classification”. If this is a reference to the AACE International guidelines or similar, that should have been better explained. If it is a reference to the AACE International guideline in 47R-11, does that mean that the CSA staff will

expect all of the “defining deliverables” or “scope definition elements” in Table 3 of the AACE International guidelines to be provided?

Part 21 (c) is also problematic in that it is going to require a significant amount of detail to meet the content requirements to provide information on “the level and accuracy of each important element”. What would be an example of an “important element”? Is that a reference to what the AACE International guidelines sets out in AACE 47R-11 Table 3, particularly the content under the technical deliverables sub-section of that table? Is the expectation that each of these line items will have an estimate accuracy provided?

	ESTIMATE CLASSIFICATION				
	CLASS 5	CLASS 4	CLASS 3	CLASS 2	CLASS 1
MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES	0% to 2%	1% to 15%	10% to 40%	30% to 75%	65% to 100%
General Project Data:					
Project Scope Description	Preliminary	Preliminary	Defined	Defined	Defined
Mine and Plant Production/Facility Capacity	Preliminary	Preliminary	Defined	Defined	Defined
Mine (Production Equipment, Pre-stripping, etc.)	Preliminary	Preliminary	Defined	Defined	Defined
Non-Process Facilities (Infrastructure, Ports, Pipeline, Power Transmission, etc.)	Preliminary	Preliminary	Defined	Defined	Defined
Plant Location	Preliminary	Preliminary	Defined	Defined	Defined
Soils & Hydrology	Not Required	Preliminary	Defined	Defined	Defined
Resource Determination (from NI 43-101) [5]	<i>Inferred</i>	<i>Indicated</i>	<i>Measured</i>	<i>Measured</i>	<i>Measured</i>
Reserve Determination (from NI 43-101) [5]	<i>Assumed</i>	<i>Probable</i>	<i>Proven</i>	<i>Proven</i>	<i>Proven</i>
Geology	Preliminary	Preliminary	Defined	Defined	Defined
Geotechnical and Rock Mechanics	Not Required	Preliminary	Defined	Defined	Defined
Metallurgical Test Work	Not Required	Preliminary	Defined	Defined	Defined
Integrated Project Plan	Not Required	Preliminary	Defined	Defined	Defined
Project Master Schedule	Not Required	Preliminary	Defined	Defined	Defined
Mine Life Plan/Schedule	Not Required	Preliminary	Preliminary	Defined	Defined
Escalation Strategy	Not Required	Preliminary	Defined	Defined	Defined
Work Breakdown Structure	Not Required	Preliminary	Defined	Defined	Defined
Project Code of Accounts	Not Required	Preliminary	Defined	Defined	Defined
Contracting Strategy	Not Required	Preliminary	Defined	Defined	Defined

	ESTIMATE CLASSIFICATION				
	CLASS 5	CLASS 4	CLASS 3	CLASS 2	CLASS 1
MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES	0% to 2%	1% to 15%	10% to 40%	30% to 75%	65% to 100%

Technical Deliverables:					
Initial Mine/Ore Access (Roads, Pre-stripping, Tunnels, Shafts, Water Management, Waste Management, etc.)	S	P	C	C	C
Mine Operations Layout (Pit Design, Dumps, Roads, Water Management, Waste Management, etc.)	S	P	P	C	C
Block Flow Diagrams	S/P	P/C	C	C	C
Plot Plans	NR	S/P	P	C	C
Process Flow Diagrams (PFDs)	NR	P	C	C	C
Utility Flow Diagrams (UFDs)	NR	S/P	C	C	C

Piping & Instrument Diagrams (P&IDs)	NR	S/P	C	C	C
Heat & Material Balances	NR	S/P	C	C	C
Process Equipment List	NR	S/P	C	C	C
Utility Equipment List	NR	S/P	C	C	C
Electrical One-Line Drawings	NR	S/P	C	C	C
Specifications and Datasheets	NR	S	P/C	C	C
General Equipment Arrangement Drawings	NR	S	C	C	C
Spare Parts Listings	NR	NR	P	C	C
Mechanical Discipline Drawings	NR	NR	S/P	P/C	C
Electrical Discipline Drawings	NR	NR	S/P	P/C	C
Instrumentation/Control System Discipline Drawings	NR	NR	S/P	P/C	C
Civil/Structural/Architectural Discipline Drawings	NR	NR	S/P	P/C	C

Technical Deliverables:

- **Not Required (NR):** Deliverable may not be required for all estimates of the specified class, but specific project estimates may require at least preliminary development.
- **Started (S):** Work on the deliverable has begun. Development is typically limited to sketches, rough outlines, or similar levels of early completion.
- **Preliminary (P):** Work on the deliverable is advanced. Interim, cross-functional reviews have usually been conducted. Development may be near completion except for final reviews and approvals.
- **Complete (C):** The deliverable has been reviewed and approved as appropriate.

The AACE International guidelines provide generic information. The guidelines themselves make it clear that capital cost estimate accuracy is driven by a number of other factors, particularly systemic risks. The guidelines also make it clear that the ranges provided for each class of study, and loosely correlated to study definitions set forth by the CIM, are typical.

Table 1 illustrates typical ranges of accuracy ranges that are associated with the mining industries. The +/- value represents typical percentage variation at an 80% confidence interval of actual costs from the cost estimate after application of appropriate contingency (typically to achieve a 50% probability of project cost overrun versus underrun) for given scope. Depending on the technical and project deliverables (and other variables) and risks associated with each estimate, the accuracy range for any particular estimate is expected to fall within the ranges identified. However, this does not preclude a specific actual project result from falling outside of the indicated range of ranges identified in Table 1. In fact, research indicates that for weak project systems and complex or otherwise risky projects, the high ranges may be two to three times the high range indicated in Table 1. [11]

ESTIMATE CLASS	Primary Characteristic	Secondary Characteristic		
	MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES Expressed as % of complete definition	END USAGE Typical purpose of estimate	METHODOLOGY Typical estimating method	EXPECTED ACCURACY RANGE Typical variation in low and high ranges at an 80% confidence interval
Class 5	0% to 2%	Conceptual planning	Capacity factored, parametric models, judgment, or analogy	L: -20% to -50% H: +30% to +100%
Class 4	1% to 15%	Screening options	Equipment factored or parametric models	L: -15% to -30% H: +20% to +50%
Class 3	10% to 40%	Funding authorization	Semi-detailed unit costs with assembly level line items	L: -10% to -20% H: +10% to +30%
Class 2	30% to 75%	Project control	Detailed unit cost with forced detailed take-off	L: -5% to -15% H: +5% to +20%
Class 1	65% to 100%	Fixed price bid check estimate	Detailed unit cost with detailed take-off	L: -3% to -10% H: +3% to +15%

Clearly, estimates will not be the same from study to study, commodity to commodity, or company to company. Different studies will have different levels of information support, some of which may have more detail at the next study stage, others may still have to work with limited data. What is an important element to a lithium brine project in the Atacama Desert will not be the same important element to a greenfields porphyry copper project in the tropics. Companies have different risk thresholds and may accept higher uncertainties with projects that potentially will have better economics.

Work breakdown structures in mining studies cover literally thousands of elements. With the overarching materiality filter removed, it is uncertain as to what must be provided to ensure compliance. What a Qualified Person may consider an “important” element will be difficult to defend since “important” is not a defined term, and the Instructions to the Proposed Modernization Draft require “relevant” as the threshold, and that term is not defined either. What the intended

audience now is defined as, “public” versus the “investor” concept that was enshrined in materiality determinations, will make it easy for CSA staff to find something wrong with the Qualified Person’s determination of what in a work breakdown structure constitutes “important” information. The concern is that the AACE International guidelines, other common industry estimation guideline documents, or an issuer’s internal study criteria, will become CSA staff enforcement tools in a misguided attempt to solve the well-known, but not inevitable, cost estimation overruns during project construction.

Cost Estimates

Taken together, the rewrite in 21 (a), 21 (b), and 21 (c) will be problematic. Costs are estimates as much as Mineral Resource and Mineral Reserves are estimates. Asking for this type of information and presenting the content requirement as absolutes that must be complied with ignores the uncertainty with an estimate. Even if the Qualified Person understood how to address most of these content requirements in a compliant manner, they will not magically fix the general problem with major mining and engineering studies regarding uncertainty in estimation. It is not possible in a mining study to have all of the information at the same level of data support, which would then allow determination of similar levels of accuracy, and for capital cost estimates, contingency. Permit requirements are unknown. Metal price and exchange rate forecasts are unknown. Negotiations with stakeholders can change assumptions in the study. Many of these only get addressed during detailed engineering. As a result, even the levels of accuracy, and for capital cost estimates, contingency, are estimates.

Content requirements in this Item will not solve this problem. It is more likely to mislead investors because it purports to require accuracies and contingencies that cannot be met, sub-text that this has never been provided to investors before because it was not required content, so the CSA staff are magically fixing issues. These are **estimates**, and forward-looking estimates at that. They are not facts. CSA staff have apparently not remembered that in their role as regulators, they also have a responsibility to manage investor expectations. They should not be asking for presentation of information that is not appropriate for a technical report and not appropriate to an estimate.

A concern with the requirements is that there is likely to be an unintended consequence of Qualified Persons in certain disciplines refusing to sign on cost estimate information, or refusing to sign on the stated study level.

Risks

There are issues with the content requirements in (e).

(e) the extent to which any known environmental, permitting, legal, title, taxation, rightsholder, socio-economic, marketing, political or other relevant factors could materially affect the capital and operating cost estimates.

While Item 14 and Item 15 had asked for this type of discussion for Mineral Resources and Mineral Reserves, respectively, this is new content to Item 21.

“Any known” would be a difficult threshold to meet; Qualified Persons are provided with no guidance as to how this should be met compliantly. Thankfully the end of the sentence ties the

request to materiality, which is a known, clear-cut threshold. However, the content requirement is asking the Qualified Person to provide commentary on information that is outside the purview of a Qualified Person, and, in terms of professional practice, outside their discipline area. CSA staff should have been aware that their embracing being a tool of professional association enforcement could not simultaneously then also require a Qualified Person to provide opinions that are outside the Qualified Person's area of practice.

Why would relevant factors required to be discussed for Mineral Reserves omit taxation, but require taxation discussion for Mineral Resources and cost estimates? Why does the relevant factors language for Mineral Resources and cost estimation require discussion of socio-economic, marketing, political legal, title information, but not the Mineral Reserves? Why are these considerations not relevant to the Mineral Reserves, particularly marketing since Mineral Reserves demonstrate economic viability. Again, it is concerning that the CSA staff apparently do not have a firm grasp of the differences between the confidence classifications, what affects estimates, and what constitute the technical and economic factors considered when estimating Mineral Resources, and the modifying factors used to convert those Mineral Resources to Mineral Reserves.

Risks, including environmental, social, and permitting risks, are rightly seen by both Qualified Persons and an issuer's management to be within management's purview. Issuers communicate risks through MD&As, news releases, AIF and other disclosure documents. Issuers and investors do not solely rely on risks being identified in the technical report, since the technical report is a snapshot in time view of a project, is only required at certain corporate or project milestones, and is only episodically updated. Risks to the project can change significantly between a technical report and its update. It would be more misleading for the Qualified Persons in the technical reports to be the only source of identification of risks to the project, or the Mineral Resource or Mineral Reserve estimates. Unlike the technical report, the issuer's other disclosures to investors are done on a timely basis.

There may be no specific risks known to the Qualified Person that meet a materiality threshold in the view of the Qualified Person. There may well be a number of general risks, and these are typically identified. Those risks are likely to be applicable to many deposit types and study stages. Just because a study is based on more detailed information does not necessarily mean that the risks facing the project have changed. Nor does completion of a particular project evaluation stage necessarily result in identification of any more specific risks than an earlier study stage.

Many technical reports only provide general disclosure about potential risks and uncertainties, simply because that is all that is known for that project stage. Many projects, even though they are for different commodities and different deposit types, also face exactly the same risks. Just because those risks may apply to all cost estimates doesn't mean that they are not real risks or uncertainties.

The CSA staff requirements in Item 14 and Item 15 were being addressed, under the 2011 edition, by Qualified Persons simply stating that they were "not aware of any" risks; this is very likely to extend to the content requirement now in Item 21 of the Proposed Modernization Draft. Nothing in the revised and added wording in the Proposed Modernization Draft addresses this as a potential source of misleading information. Instead, the Proposed Modernization Draft simply

doubles down on the Qualified Person showing bad behaviour if the Qualified Person doesn't somehow create a set of risks and uncertainties that can only be applied to the single project that is the subject of the technical report and never applied to any other project.

There will never be a set of risks and uncertainties that can only be applied to the single project that is the subject of the technical report and never applied to any other project. Major risks are common to the industry, across jurisdictions, projects, studies, and commodities. Just because those risks are stated for different projects, again, does not invalidate them as being project-specific in each case.

Item 16–22 Instructions, Companion Policy

How do the CSA staff expect a Qualified Person, who understands how operating costs are estimated, provide those costs for material that is not estimated as Mineral Resources and Mineral Reserves, let alone provide that information compliantly, since there is a prohibition on economic analyses of material that is not classified as Mineral Resources or Mineral Reserves?

Why is the guidance included? And more concerningly, given the prohibitions on economic analyses of material that is not classified as Mineral Resources or Mineral Reserves, how many of these types of analysis have the CSA staff allowed to be made public?

Cost Reconciliation

Reconciliation of costs is not appropriate for a technical report, and should have been seen to be so, and therefore not allowed to get to the point of requiring public comment. Any changes in cost forecasts against actuals should be provided by the issuer's management, not the technical report. Continuous disclosure obligations already envisage this type of investor update, both in quarterly reports and the issuer's MD&A.

Forecast versus actual disclosure is not a direct apples to apples comparison as is implied in this disclosure, and needs to be undertaken with context and explanation of changes. Again, this is not within the purview of the Qualified Person on the technical report. The same issues arise here with presenting a prior cost estimate as were raised with the prior Mineral Resource estimate:

- How does the Qualified Person provide a previous cost estimate compliantly, since a previous cost estimate is no longer current? It is superceded, or it would not be labelled as a previous cost estimate;
- A comparison between a previous cost estimate and a current cost estimate can only be meaningful if the key parameters and assumptions for both are presented so the changes can be understood holistically;
- Since the key parameters and assumptions, and the Mineral Resource and Mineral Reserves on which those assumptions are based are superceded, this is treating the previous and current estimates as if they are simultaneously current, requiring the Qualified Person to take responsibility for a cost estimate build-up that they may not have any familiarity with, or familiarity with only certain inputs, and meet the instruction in the Rule that information provided by others be verified as still current.

The instructions to the shelf life of a technical report in the Companion Policy:

Continued reference to outdated technical reports or economic projections without appropriate context and cautionary language could result in misleading disclosure

make it clear that in other contexts, CSA staff already expect that previous cost estimates could readily be interpreted to be misleading disclosure.

Do the Qualified Person and the issuer have to address all of the content requirements for cost estimate disclosure when disclosing a prior cost estimate, such that the two terms are treated synonymously for disclosure purposes, just under different names? Who is responsible for the information: the Qualified Person at the time, or the current Qualified Person?

Not Relevant/Not Applicable

See comment under this point in Instructions.

Missed Opportunities

The Proposed Modernized Draft also misses an opportunity here to remove duplication of content already required in other sections of the technical report content requirements. There is no need for risks and uncertainties to be discussed in Item 21 and again in Item 25. The logical place for the content to be discussed is in Item 25, in the interpretations and conclusions section, where the Qualified Persons are providing their results and interpretations overview, since risks and uncertainties are a type of interpretation. The duplicated content in Item 21 should be removed since all that will happen is that Qualified Persons copy the content they provide under that Item and re-paste it in under Item 25.

Item 22: Economic Analysis

Proposed Modernization Draft

Form	Companion Policy
<p>Other than for a mineral project of a producing issuer for which the issuer is not materially expanding current production, provide an economic analysis for the mineral project that includes the following:</p> <ul style="list-style-type: none"> (a) a clear statement of and justification for the principal assumptions; (b) discounted cash flow forecasts on an annual basis using mineral reserves or mineral resources, an annual production schedule for the life of the mineral project and a discussion of how the risk-adjusted discount rate applied in the forecasts was selected; (c) a presentation of both pre-tax and post-tax net present value, internal rate of return and payback period of capital and a discussion of how each of these was determined; (d) a summary of applicable taxes, royalties and government levies including, for greater certainty, those applicable to production and to revenue or income from the mineral project; (e) sensitivity or other analysis using variants in commodity price, grade, capital and operating costs, discount rate or other significant parameters, as applicable, including a discussion of the impact of the results. 	<ul style="list-style-type: none"> (1) The economic analysis in technical reports must include any applicable cautionary language required by subsection 7 (3) of the Instrument. (2) Discussion of how the risk-adjusted discount rate was selected should consider risks specific to the mineral project such as location, stage of development or type of commodity.

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 22: ~~_____~~ Economic Analysis ~~_____~~ Provide

~~Other than for a mineral project of a producing issuer for which the issuer is not materially expanding current production, provide~~ an economic analysis for the mineral project that includes the following:

- (a) a clear statement of and justification for the principal assumptions;
- ~~(b) _____~~ ~~discounted~~ cash flow forecasts on an annual basis using mineral reserves or mineral resources ~~and~~, an annual production schedule for the life of the mineral project;
- ~~(b) _____~~ ~~and~~ a discussion of how the risk-adjusted discount rate applied in the forecasts was selected;
- (c) a presentation of both pre-tax and post-tax net present value (NPV), internal rate of return (IRR), and payback period of capital with imputed or actual interest and a discussion of how each of these was determined;
- (d) a summary of ~~the applicable~~ taxes, royalties and ~~other~~ government levies ~~or interests including, for greater certainty, those~~ applicable to ~~the mineral project or to~~ production, and to revenue or income from the mineral project; ~~and~~
- (e) sensitivity or other analysis using variants in commodity price, grade, capital and operating costs, discount rate or other significant parameters, as ~~appropriate, and discuss applicable, including a discussion of~~ the impact of the results.

INSTRUCTIONS:

- ~~(1) _____ Producing issuers may exclude Item 22 for technical reports on properties currently in production unless the technical report includes a material expansion of current production.~~
- ~~(2) _____ The economic analysis in technical reports must comply with paragraphs 2.3 (1) (b) and (c), subsections 2.3 (3) and (4), and paragraph 3.4 (e), section 21 of the Instrument, including any required cautionary language.~~

Comment

Discount Rate

Part 22 (b) is stepping into industry practice. It is not the role of the CSA staff to mandate what type of discount rate is used, and how it is selected. A risk-adjusted discount rate is just one of a number of different types of discount rate. Selecting the appropriate metric to be used to come up with the discount rate is an industry practice. Asking for the discount rate is appropriate, and asking for it to consider the project type and jurisdiction is appropriate, but requiring a specific type of discount rate is not.

The statements in (2) of the Companion Policy are also examples of CSA staff stepping into industry practices. This is not disclosure, and not within the CSA staff remit.

Results of Economic Analysis

The discussion requirement in part (c) is not necessary. The cashflow model already shows how the pre-tax and post-tax net present value, internal rate of return and payback period of capital were calculated. The discussion requirement is filler, since the information is already in the cashflow table. It is not the Qualified Person's role to explain to the CSA staff basic tenets of cashflow modelling and outcomes, or explain the meaning of basic financial terms.

The text in part (1) of the Companion Policy is not guidance. It is an instruction. It should be with the Form.

Sensitivity Analysis

The wording provided in (e) is open to two ways of interpretation.

sensitivity or other analysis using variants in commodity price, grade, capital and operating costs, discount rate or other significant parameters, as applicable, including a discussion of the impact of the results

Is it the discount rate or the other significant parameters that is optional? Or is it that the first five are non-optional, the optionality is only with "other significant parameters"?

The content requirement in (e) will no longer be able to be met with a simple spider graph, currently an industry-preferred method of showing sensitivity analyses, since this approach cannot accommodate sensitivity to discount rate. The beauty of the graph is that it shows points on a curve, and is more flexible for interpretation. The new requirement is most likely to be addressed using tables, and fixed absolute numbers. The upshot is that it may be more difficult for issuers to maintain a report as current if there are major fluctuations in the parameters in the sensitivity analysis that are not readily understandable from the fixed table format.

For Greater Certainty

A mining study is not akin to a manufacturing factory, where the production is precisely calibrated to equipment designed expressly for production. A mining study is based on imperfect information, because of a number of factors, including the expense and practicality considerations that are involved in data collection, the small sample size available for interpretation and test work, the need to extrapolate from the data collected, the amount of data interpretation required, and the number of inputs that require predictive assumptions. There is no "for greater certainty" that can be implied or should be required when dealing with forecasts and interpretations.

From the perspective of the Qualified Person preparing a technical report and the issuer for whom the technical report will provide support for much of its disclosure on that material property, it is not clear how they would demonstrate that they have met the criterion of "for greater certainty" to the satisfaction of a Canadian regulator. There is a lot of uncertainty in how taxes will be levied and the amount of tax that will be payable.

Exploration programs and mining studies are based on imperfect information and cannot provide “greater certainty” on the data collected. Primarily as a function of cost and practicalities of data collection, exploration samples and drill holes used in geological modelling and estimation provide very small samples of mineralization, which have to be extrapolated to the 3D actuality. Mining studies are based on the information available at the time. Each iteration of a mining study refines some aspects of the previous study, but may not necessarily revise all of them: some aspects are very well understood and remain the same from stage to stage. Each study stage is generally based on more data, but not necessarily a change in interpretation.

See comment on this point in Illustrations.

Missed Opportunities

This was a missed opportunity to streamline the technical report content requirements, if streamlining actually had been an objective.

The instructions in 22 (a) require the Qualified Person to repeat all of the assumptions and interpretations that have been presented in Items 4 to 21. All of that information already forms the “statement of, and justification for the principal assumptions”. Part 22 (a) should have been deleted.

Item 23: Current Personal Inspection

Proposed Modernization Draft Form

Form	Companion Policy
<p>Disclose the following details of the current personal inspection of the mineral project, required under section 21 of the Instrument, by each qualified person, as applicable:</p> <p>(a) the date and duration of the inspection;</p> <p>(b) the observations made concerning the Items of the Form for which the qualified person is responsible;</p> <p>(c) the conditions of the mineral project;</p> <p>(d) any confirmation sampling or testing conducted under this Item, including results.</p>	<p>(1) The observations by the qualified person conducting the current personal inspection may include anything the intended audience might need to know that could impact further advancement of the mineral project.</p> <p>(2) We do not consider the sampling or testing done by the qualified person during the current personal inspection to be exploration activities of the issuer.</p> <p>(3) We additionally note that it is considered acceptable that the current personal inspection may be assisted by, but not replaced by, remote technologies including drones.</p>

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 23: Current Personal Inspection

~~(3) — Disclose the information following details of the current personal inspection of the mineral project, required under Requirements for All Technical Reports~~

~~Item 23: Adjacent Properties~~ — A technical report may include relevant information concerning an adjacent property if

~~(a) — such information was publicly disclosed by the owner or operator of the adjacent property;~~

~~(b) — the source of the information is identified;~~

~~(c) the technical report states that its each qualified person ~~has been unable to verify the information and that the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report;~~ as applicable:~~

~~(d) — the technical report clearly distinguishes between the information from the adjacent property and the information from the property that is the subject of the technical report; and~~

~~(e) — any historical estimates of mineral resources or mineral reserves are disclosed in accordance with paragraph 2.4 (a) of the Instrument.~~

~~(a) the date and duration of the inspection;~~

~~(b) the observations made concerning the Items of the Form for which the qualified person is responsible;~~

~~(c) the conditions of the mineral project;~~

~~(d) any confirmation sampling or testing conducted under this Item, including results.~~

Comment

Site Visit

This is a nonsensical elevation of a single aspect of data verification. Personal inspections are seriously now as important as the Mineral Resource estimate, the Mineral Reserve estimate, capital and operating cost estimates, and the cashflow analysis? This is a huge extrapolation from the 2022 Consultation Paper responses, and should have been part of industry consultation prior to releasing this Proposed Modernization Draft.

This level of elevation of site visits is not in line with industry understanding of the purpose, or efficacy, of site visits. Site visits are a practice issue; they are not a compliance issue. CSA staff

are again trying to usurp the role of what is and is not an industry practice, and what constitutes an industry practice.

The proposed wording for this item both overstates the importance of the site visit and is not applicable to any other study or operational stage; it only applies to early-stage exploration. The wording in the Proposed Modernization Draft Companion Policy supports this interpretation, since the only context in which its statements around the necessity of a visit can apply, given the examples used, is to early-stage exploration properties.

We consider a current personal inspection under section 21 of the Instrument to be particularly important because it will enable qualified persons to become familiar with conditions on the mineral project. A qualified person can observe the geology and mineralization, verify work done and, on that basis, design or review and recommend to the issuer an appropriate exploration or development program. A current personal inspection is required even for mineral projects with poor exposure. In such cases, it could be relevant for a qualified person to observe the depth and type of the overburden and cultural effects that could interfere with the results of the geophysics. A current personal inspection also allows for a qualified person to observe the access, limitations, environmental setting and the overall nature of the mineral project, which may or may not impact the ability to conduct further work or development.

The guidance provided in the Proposed Modernization Draft Companion Policy to the site visit requirements in Item 23 is extremely broad:

The observations by the qualified person conducting the current personal inspection may include anything the intended audience might need to know that could impact further advancement of the mineral project

The requirement to provide “anything the intended audience might need to know” will be difficult to meet is deliberately setting the Qualified Person and the issuer up to fail since the requirement is so broad.

The real question is what benefit is this to the investor? Is the cost to the issuer demonstrably balanced by a better investor understanding of the project from a visual inspection? Like independence, this is a concept that has been inflated way beyond the actual usefulness.

When there have been several generations of mining studies and technical reports, site visits can become less important/significant as a project advances, and those projects may not warrant continued visits.

A lot of verification and due diligence on the part of the Qualified Person can be performed at the desktop level, and for some disciplines, this checking is more relevant than a site visit. The CSA staff should be more aware of industry practice, which is that data checking and verification **is** very important. However, for industry generally, site visits are simply a subset of data verification, they cannot provide any more than the Qualified Person’s opinion on what was observed, and they are not applicable across the board to all of the Qualified Persons on all of the discipline areas that must be addressed in the technical report.

The instructions do not allow for QPs to make a contextual decision on whether or not a site visit is warranted. Can be a lot of information that can be verified at the desktop (e.g. metallurgical testwork is supporting geological assumptions).

What is the expectation in the case of an operating mine? Mining operations generate a constant flow of new information, most of which could be considered by CSA staff to be relevant. How does the Qualified Person and the issuer determine currency of the site visit for operations? How can they reasonably comply since it could be argued that the visit was only current for a week before more relevant information was generated

Finally, site visits are very likely not going to identify and solve problems in data interpretation or identify deliberate data manipulation. Site visits should not be being sold to investors by the CSA staff as a method of early identification with issues in a mining study, or a method whereby study flaws will always be recognized. Or as a method whereby man-made structures can be reliably identified as ready to fail, and the Qualified Person if they'd just gone to site would have immediately spotted the issue.

The wording is designed to have the CSA staff to be the final arbiters on whether site visits by Qualified Persons are current, and were completed for the correct purpose as set out in the Rule. That a site visit is current no longer clearly lies with the Qualified Person or the issuer to determine.

The issuer and Qualified Persons, unfortunately, are likely to find out the CSA staff view, which is considered decisive in the staff's view, only at times that will be very difficult for the issuer to manage. This will almost certainly result in an issuer having to halt and lose financing if the review is done during the short-form prospectus window, since most sites require logistics considerations, and many Qualified Persons will not be able to travel immediately. Anecdotally, CSA staff have previously put issuers on the defaulting issuer list without waiting for the 10-day response period to elapse, simply because they did not believe that a site visit could be completed within the allocated period.

The site visit abrogation of decision making from the Qualified Person to the regulator is another example of where Qualified Persons have all of the responsibility and liability, but are not allowed the authority to actually make decisions.

This modified wording and requirements around site visits will be a major area of uncertainty for the industry, as the CSA staff have already anecdotally shown that justifiable issuer concerns with the logistics of site visits such as camp capacity, availability of transport, and safety concerns are not as material as the fact that site visits in the CSA staff view are required.

Visual Inspection

The requirement in 23 (b) is problematic, because it creates expectations that are unreasonable. Visual inspection is not relevant to all discipline areas across the board; a good example being Item 19, Markets and Contracts. What 23 (b) does now is insert prescriptiveness. The Qualified Person should be allowed to decide if a site visit is warranted and select what it is that they want to personally inspect. What is expected of the Qualified Person to meet this requirement? Is this a way of requiring trip reports? Can the Qualified Person address, assuming they did go to site

and did inspect certain aspects of the geology or infrastructure, the content requirements with a sentence? A paragraph? A full trip report?

As Applicable

It is not clear how “as applicable” in the introductory sentence should be interpreted. Does this mean that the Qualified Person is allowed to determine which of 23 (a) through to 23 (d) is relevant to complete given their area of practice?

Conditions of the Mineral Project

The requirement in part (c) is rendered nonsensical with the new definition, since “project” replaced a number of other terms, such as mineral tenure, property activity and level of study. Conditions of a project means what in the context of mineral tenure now that a project is no longer the activity? It is also pretty difficult to straight-faced describe the condition of a resource estimate or a Pre-Feasibility Study. Does this content requires all of the Qualified Persons to comment on the discipline areas they are signing on?

Confirmation Sampling

Witness or “confirmation sampling” is a type of data verification. It should be with that section, not with the personal inspection. Secondly, such sampling may be a valid method of corroborating at an early exploration stage that there is mineralization on the property in the area designated as being mineralized. Such samples come with inherent selection bias as the Qualified Person actively chooses samples that show some evidence of mineralization. However, it is a meaningless requirement for other disciplines, and for advanced mining studies and operating mines.

It is unreasonable to assume that a couple of grab or drill samples can be thought to “confirm” anything other than the presence of mineralization. Such samples can never be an adequate representation of a billion tonne deposit. There are many other ways of verifying the presence of mineralization for advanced projects and operations than surface samples that have an inherent visual selection bias toward altered or mineralized samples. To require Qualified Persons to present to investors that these samples “confirm” anything is asking the Qualified Person to act unethically and against professional practice.

How does the Qualified Person signing on cost estimates perform corroboration sampling that is meaningful for such estimates? What would they sample? What does the Qualified Person evaluating the social licence sample?

Why do the CSA staff believe that the guidance in part (2) of the Companion Policy is so important that it needs to be in the guidance. It is applicable to very few projects outside the narrow focus of interest on early-stage exploration projects.

Drone Technology

Part (3) of the Companion Policy is simply not needed. This was a concern pursued in the 2022 Consultation Paper, and is obviously included only so that there are grounds for the CSA staff to be able to say that there was industry consultation completed and extrapolate consultation on one point of staff interest to apply to all changes in the Proposed Modernization Draft.

Currency of Site Visit

Whether or not a site visit remains current is an unacknowledged technical report trigger, and will be a significant source of uncertainty for issuers and Qualified Persons.

There is a lot to unpick around the “current” instructions.

The Rule states:

Before an issuer files a technical report, at least one qualified person responsible for preparing or supervising the preparation of all or part of the technical report must complete a current inspection, in person, of the mineral project that is the subject of the technical report.

The Companion Policy Part A (21)(1) states:

The current personal inspection referred to in section 21 of the Instrument is the most recent personal inspection of the mineral project, provided there is no new relevant scientific or technical information about the mineral project since that personal inspection.

The guidance in the Companion Policy on the meaning of a current inspection contradicts current industry practice, which is to complete the site visit early in the project so that the Qualified Person can factor any observations during the site visit into their interpretations of the information they are taking responsibility for in the technical report. What the Rule and (21) (1) of the Companion Policy are going to require is either:

- The Qualified Person completes two site visits, one earlier in the project, and a second one closer to the filing date of the technical report, to avoid the issue that there could be some new relevant scientific and technical information about the mineral project that has occurred since their earlier site visit.
- The Qualified Person waits to do their site visit until immediately prior to the filing of the technical report, such that anything they learn from the site visit may not be considered in their interpretations of the information.

There is also significant uncertainty over what will be considered by CSA staff as “new relevant scientific and technical information about the mineral project”. Will assays results that come in after the site visit fall into that category? Metallurgical test results? Information on environmental and social aspects? Will the Qualified Persons be forced to explain why any new information on the property between their site visit and the filing date of the technical report is not considered to be relevant?

Different project settings can make the timing of the site visit problematic:

- Remote greenfields projects with limited windows for access to the project site (weather limitations, camp availability, personnel at site to facilitate the site visit, drilling/sampling/logging activities ongoing that the Qualified Person can observe). The optimum time to take advantage of all these important considerations may be several months before the technical report is to be filed. Yet that could mean there would be new

relevant information that becomes available between the site visit and the report filing dates;

- Year-round active projects where lots of new information is continuously being produced (drilling, mine development, community engagement, permitting activities, laboratory test programs). Is the Qualified Person required to visit the site just before the report is to be filed in order to ensure a current site visit?

Seasonal activities on the ground, which is the optimum time for a site visit to be conducted, result in significant new relevant information from testing laboratories and other consultants doing their specialized studies on the material gathered during the seasonal exploration program. The Qualified Person should make every effort to review this new and relevant information that comes in after their site visit, but the existence of this new relevant information should not constantly trigger the need for new site visits prior to the technical report filing.

It is creating a whole new area of prescriptiveness that overrides the QPs judgment and issuer's ability to facilitate site visits, and of when a current site visit must be conducted to ensure a compliant technical report. The major concern is that the CSA staff making a determination that there has been an occurrence of "new relevant scientific and technical information about the mineral project since that personal inspection", making the technical report non-compliant, and triggering either a re-file of an amended technical report or a completely new technical report.

A further concern is the instruction in the Companion Policy to the issuer:

It is the responsibility of the issuer to arrange its affairs so that a qualified person can carry out a current personal inspection.

This sentence is telling the issuer that it will have to arrange its affairs such that there is no new information generated on the mineral project between the date of the Qualified Person's site visit and the filing of the technical report. The issuer would have to impose a blackout period on data collection. In essence this would mean, as examples, suspending all operations, stopping the drill program, stopping the assay laboratory from preparing and analyzing samples, halting all geological interpretations, and no collection of cost data.

While the text around the issuer arranging its affairs was also in the 2011 edition, how it is now being applied has totally changed the meaning.

Not Relevant/Not Applicable

See comment under this point in Instructions.

Missed Opportunities

It would have been more logical to have pulled tailings storage facilities and other man-made storage structures out into their own Item, given the importance of those facilities, than to have elevated site visits to this level.

Item 24: Other Relevant Data and Information

Proposed Modernization Draft

Form	Companion Policy
Include any additional information or explanation necessary to make the technical report not misleading.	No guidance provided

Blackline Proposed Modernization Draft Form to 2011 Edition Form

Item 24: ~~Other Relevant Data and Information~~

Include any additional information or explanation necessary to make the technical report ~~understandable and~~ not misleading.

Comment

The wording used in the 2011 edition was always problematic. The Form stipulates what content must be provided for a compliant technical report.

What information then would fall outside the Form content requirements that would be so material that non-inclusion is misleading?

And with the materiality filter removed, where does the Qualified Person make a determination on relevant information, given the same fact that the Form is what stipulates what content must be provided for a compliant technical report.

A further concern is that this is a blanket statement around “misleading” as a factual determination if content is not provided, even prior to a hearing. The CSA staff in both the 2011 edition and the Proposed Modernization Draft are automatically assuming that if something is omitted, then that omission is evidence of misleading disclosure. It only has potential of being misleading absent the direct findings of a hearing. The big concern here is that the wording is an automatic presumption of guilt prior to a hearing.

Item 25: Interpretation and Conclusions

Proposed Modernization Draft

Form	Companion Policy
Summarize the results and interpretations of the information and analysis in the technical report. Discuss any risks and uncertainties that could be expected to affect the reliability of or confidence in the exploration information, mineral resource or mineral reserve estimates or economic analysis. Discuss any foreseeable impacts of these risks and uncertainties on the mineral project's potential economic viability or continued viability.	No guidance provided

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Item 25: ~~— Interpretation and Conclusions —~~

Summarize the ~~relevant~~ results and interpretations of the information and analysis ~~being reported on in the technical report~~. Discuss any ~~significant~~ risks and uncertainties that could ~~reasonably~~ be expected to affect the reliability ~~of~~ or confidence in the exploration information, mineral resource or mineral reserve estimates, or ~~projected~~ economic ~~outcomes analysis~~. Discuss any ~~reasonably~~ foreseeable impacts of these risks and uncertainties on the ~~project's mineral project's~~ potential economic viability or continued viability. ~~A technical report concerning exploration information must include the conclusions of the qualified person.~~

Comment

The reworded content requirement is a significant issue for Qualified Persons, and for the issuers for whom the technical report is intended.

It is not clear why “relevant” was removed. It may be that the CSA staff considered that if they restricted the requirement to only the information in the technical report, then relevance was not a consideration.

Risks and Uncertainties

The continued use of “any” in the Proposed Modernization Draft remains a concern wherever it occurs, as are strikeouts of filters such as “significant” and “reasonably”.

In these instances:

Discuss any risks and uncertainties that could be expected to affect the reliability of or confidence in the exploration information, mineral resource or mineral reserve estimates or economic analysis,

and

Discuss any foreseeable impacts of these risks and uncertainties on the mineral project's potential economic viability or continued viability.

what remains is an instruction to the Qualified Person that they must provide any, meaning there is a complete lack of restriction on what the Qualified Person must identify.

The second use of the “any” wording begs the question of foreseeable to who? The Qualified Person, the issuer, the CSA staff using hindsight, the investor, the general public?

It also opens the issuer and Qualified Person up to critiques from the CSA staff if in the view of those staff, insufficient information was provided on “any” matter, or insufficient information was provided on potential impacts.

This new content requirements for Qualified Persons to not just consult their ‘crystal ball’, but to get those crystal ball predictions and projections absolutely right is of major concern. CSA staff have, in recent times, been more than prepared to apply policies and requirements retroactively. For example, if an issue is found at the time the CSA staff are reviewing a technical report prepared years earlier, a circumstance which industry already knows to its cost is a frequent occurrence, and that report does not identify a risk or uncertainty that is now known, there is every expectation that the CSA staff will then claim that the technical report contains “potentially misleading information”.

The requirements are setting up the Qualified Persons to fail, and it is hard to see the proposed changes to the wording in this Item as anything other than a deliberate step in that direction. Qualified Persons are being loaded with responsibility, but are being given no authority.

None of these “any” requirements suggest that the CSA staff retain a grasp of the difficulties faced by the industry they are trying to regulate. Or is that they do understand, and the actual intent is to not have such an industry?

Risk discussions provide useful information to an investor, but the content requirements in the technical report need to provide the Qualified Person with the flexibility to use a materiality filter. Every project, even during operations, has different levels of scientific and technical information available for each discipline area, and that level of information is what the Qualified Person has to work with to provide interpretations, opinions, estimates, predictions, and forecasts. Most projects and the majority of operations have risk registers, which may have tens to hundreds of risks identified. Risk registers, however, also come with an assessment of how likely those risks are to occur in a project-specific context, and an assessment of the likely impact of those risks. Maintenance and annual updates to risk registers are a common industry practice across all discipline areas and for most commodities. If true industry consultation on the part of the CSA staff had occurred, this fundamental point would have been made.

Qualified Persons are normally expected to follow industry practices. Risk registers that have risk rankings are a common industry practice, even though there are different schools of thought and different methods used within the industry to get to the end product register. Asking the Qualified Persons to go against accepted practice by focusing on “any” should have been a CSA staff concern.

A further CSA staff concern should have been the effect on the investor. What are investors to make of the sheer number of risks that will be included: Qualified Persons and issuers are going to err on the side of providing more, rather than less information regarding risk and uncertainty to

try and fend off the inevitable CSA staff opinions that inadequate disclosure was made, or a risk or uncertainty was omitted. It is likely that material risks and uncertainties will not be understood on the investor side because of the amount of noise this content requirement will generate in the hope of compliant disclosure.

Risks are real, data are uncertain, and interpretations change. These aspects should be part of the discussion in a technical report, but should not be required to the ludicrous extent that alien invasion or zombie apocalypse-type risks have to be included. After all, those would fall under “any”, and would very likely have an impact on the economic outcomes in a mining study.

Because so much of what goes into a technical report therefore is not fact based, it consists of interpretations, opinions, estimates, predictions, and forecasts, CSA staff requiring “any” risk and uncertainty and “any” forecast of what might be affected is absolutely a step too far on their part. Holding Qualified Persons responsible for identifying “any” risk and uncertainty on a mining project is simply both wrong and unnecessary.

Investors need to see a summary of what is interpreted, at the time the technical report is filed, to be significant, important, material information; not just relevant information. So many of the changes the CSA staff are proposing will cause the industry, out of an abundance of caution, to provide data dumps. What should be critical to a balanced market and investor understanding is the materiality of the information, presented in a way that the investor can understand. Instead, what the investor will get is a sea of noise.

It may be preferable to have everything in the technical report Item requirements subject to a materiality filter as it was in the 2011 edition. This is clear-cut. The Proposed Modernization Draft still requires the Qualified Person to make materiality determinations in a number of areas, so despite the points made in the 2022 Consultation Paper (see points made in _____), so the use of “relevant” instead has not addressed the issues raised in the 2022 Consultation Paper. With the changes in the Proposed Modernization Draft, without materiality as a filter, the entire edifice constructed around having Qualified Persons take responsibility for information that is likely to influence an investor falls apart. If Qualified Persons have to provide data dumps to address the uncertainty that is coming from CSA staff imposing obligations on the mining industry over information for which there is no reasonable standard of assessing what may or may not be considered compliant, this is a failing of the Proposed Modernization Draft, not the industry. With numerous changes in the Proposed Modernized Draft, CSA staff are taking positions that will increasingly make it more difficult for industry and Qualified Persons to provide compliant disclosure.

Legal Review

The final concern with these proposed wording changes are the minutiae that legal counsel reviews are likely to require the issuer to provide, and Qualified Persons to take responsibility for, in attempt by legal counsel to “ensure” that the technical report is compliant. The level of uncertainty around what is compliant disclosure to meet the content requirements will be amplified and refracted by such legal opinion. As a recipient of all too many legal reviews using checklists, and legal reviewers with limited understanding of mining technical terms and concepts, this categorically will not help the Qualified Persons or the issuers to provide appropriate information, nor will it help the investors sort risk and uncertainty wheat from chaff.

Missed Opportunities

The Proposed Modernized Draft also misses an opportunity here to remove duplication of content already required in other sections of the technical report content requirements. This was an obvious step to take if CSA staff were truly focused on streamlining. There is absolutely no need for risks and uncertainties to be discussed in Item 14, Item 15, Item 21 and in Item 25. The logical place for the content to be discussed is here, in the interpretations and conclusions section, where the Qualified Persons are providing their results and interpretations overview, since risks and uncertainties are a type of interpretation. The duplicated content in Item 14, Item 15, Item 21 should be removed since all that will happen is that Qualified Persons copy the content they provide under those Items and re-paste it in under this Item.

Item 25 should consolidate the risk and uncertainty discussion; content requirements need to be restricted to only those parameters and interpretations that are within the purview of the Qualified Person, and CSA staff should abandon the position that there will always be a set of risks and uncertainties that can only be applied to the single project that is the subject of the technical report and never applied to any other project. Major risks are common to the industry, across jurisdictions, projects, studies, and commodities. Just because those risks are stated for different projects, again, does not invalidate them as being project-specific in each case.

Item 26: Recommendations

Proposed Modernization Draft

Form	Companion Policy
Provide details of the recommended work program and a breakdown of costs. If the work program is recommended to be undertaken in phases, do not provide more than 2 consecutive phases and state whether advancing to the subsequent phase is contingent on positive results in the previous phase.	<p>In some specific cases, the qualified person may not be in a position to make meaningful recommendations for further work. Generally, these situations will be limited to mineral projects under development or in production where material exploration activities and engineering studies have largely concluded. In such cases, the qualified person should explain why they are not making further recommendations.</p> <p>In general, we do not expect recommendations as part of a life of mine plan.</p>

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Comment

Recommendations Not Needed

This is another example of where the decision by CSA staff, absent any industry consultation, to delete some, but not all of the instructions in the 2011 edition of the Form and relocate these to the Proposed Modernization Draft Companion Policy make it much more difficult for a Qualified Person to understand the context of an instruction. The move as proposed is detrimental, not helpful, and cannot be seen to be providing clarity or guidance, since instructions are what must be done; clearly an instruction is not guidance.

The recommendations requirement guidance provided in the Proposed Modernization Draft Companion Policy guidance should recognize that there are more instances than just for operating mines where Qualified Persons may not have meaningful recommendations to make. If no additional information is required to be collected for a decision to be made, such as the Board deliberating on divesting a project, offering it for joint venture, or parking it until the commodity cycle is more favourable, then requiring a Qualified Person to make a recommendation is not of benefit to anyone, including the investor that the technical report should be focused on. There is a risk that the CSA staff requirements and stipulations as to when recommendations are and are not necessary will be used to force an issuer into doing work that isn't immediately necessary.

A review of the Proposed Modernization Draft Companion Policy guidance does not make it clear that recommendations are a type of Qualified Person opinion. The work program proffered by the Qualified Person should not be seen as binding on an issuer to complete, since the Qualified Person does not have the full overview of an issuer's properties and growth strategy that the Board does.

Issuer

The CSA staff are conflating recommendations from the Qualified Persons as obligations on the issuer. They are not. They should be seen as the Qualified Person's interpretations based on the project-level data available. These inform the issuer's management as to work to contemplate, but as the Qualified Persons do not have the overall understanding of the issuer's entire business in relation to its other properties, cannot be considered binding on the issuer to complete.

All instances of when recommendations should be included in a technical report should be optional, and for the Qualified Person to determine.

Missed Opportunities

This is a missed opportunity. There is no valid reason to restrict work programs to just the two phases. While the TMX Group required the two work phases, this does not have to be reflected in the technical report requirements.

In many cases this is artificially causing Qualified Persons to combine work in nested phases to address the two-phase compliance requirement. This commonly occurs with metallurgical test work that is required to be completed on drill core, but as that core still has to be drilled and collected, the Qualified Persons are combining the work program into the single phase of drilling core + metallurgical test work, so that the recommended second work phase can be, for example, the mining study that will use the test work data.

It also provides no flexibility for the Qualified Person to reflect exploration realities. Drill programs in actuality are dynamic and change as results are received. Drilling proceeds in an exploration context only if the drill holes are encountering favourable mineralization indications. If the first couple of drill holes in the program encounter nothing, then the program is typically halted. Conversely, if one drill hole in the program results in a significant discovery, it is most likely that the issuer will pivot to completing more work and more drill holes than the original plan contemplated.

The current instructions also serve to more rapidly stale-date a technical report, because the report is only current for the duration that the recommendations apply. Restricting recommendations to two consecutive work phases is a method of forcing issuers to more frequently update the technical report; in effect the instruction introduces a type of planned obsolescence. The CSA staff do not need to embed a strategy of deliberately ensuring that the current version of a technical report will stale-date; in the mining industry, this is already a given.

Where the Proposed Modernization Draft Companion Policy guidance could have been helpful, and this is a missed opportunity, is to have the Qualified Persons focus on what is pertinent to the next work phase. An example is where the Qualified Person makes recommendations for how to implement and complete production drilling, when this level of work is simply not relevant to a resource estimate for which the next evaluation stage is clearly to be a scoping study.

Item 27: References

Proposed Modernization Draft

Form	Companion Policy
Include a list of all references cited in the technical report.	No guidance provided

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Item 27: ~~References~~

Include a ~~detailed~~ list of all references cited in the technical report.

Comment

Missed Opportunities

The instruction should just request a list of references. It shouldn't be limiting the references to only those cited in the text.

There is a missed opportunity to have streamlined Item 2. Part (c) is exactly the same requirement as Item 27, only Item 27 requires the references to be provided if cited, and Item 2 (c) says only to do so if applicable. There is no need to require references to be provided in multiple places in the report. Part (c) should be removed, such that Item 27 is where the Qualified Person provides the list of references used to compile the technical report, not simply cited within the report.

The same comment is made with the proposed lists of environmental documents in Item 20 (a). This requires unnecessary duplication and should have never been added if streamlining was a goal. Lists of documents, studies, reports and memoranda should be requested once, in Item 27. There should not be numerous places in the technical report where such information is required content.