

**Note: Comments from Greg Mosher relating to CSA Consultation Paper 43-401 – Consultation on National Instrument 43-101 *Standards of Disclosure for Mineral Projects* are in **BLUE** text below.**



Canadian Securities  
Administrators

Autorités canadiennes  
en valeurs mobilières

## CSA Consultation Paper 43-401

### *Consultation on National Instrument 43-101 Standards of Disclosure for Mineral Projects*

**April 14, 2022**

#### **Introduction**

Canada plays a leading role in mining capital formation<sup>1</sup> and National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101) is recognized globally as the pre-eminent standard for mineral project disclosure.

The purpose of this consultation paper (**Consultation Paper**) is to obtain feedback from stakeholders about the efficacy of several key provisions of NI 43-101, priority areas for revision, and whether regulatory changes would address concerns expressed by certain stakeholders. The information we gather will assist the Canadian Securities Administrators (**CSA** or **we**) in considering ways to update and enhance the current mineral disclosure requirements, to provide investors with more relevant and improved disclosure, and to continue to foster fair and efficient capital markets for mining issuers.

This Consultation Paper should be read together with NI 43-101 and Form 43-101F1 Technical Report (the **Form**). Unless defined, terms used in this Consultation Paper have the meanings given to them in NI 43-101.

The CSA are publishing this Consultation Paper for a 90-day comment period. In addition to any general comments that you may have, we also invite comments on the specific questions set out in the Consultation Paper.

The comment period will end on July 13, 2022.

#### **Current Framework**

##### *Summary*

NI 43-101 governs disclosure of scientific and technical information concerning mineral exploration, development, and production activities by mining issuers for a mineral project on a

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<sup>1</sup> In the year ended December 31, 2020, S&P Global Market Intelligence reported that over 50% of global mining capital formation by public mining issuers emanated from Canada.

property material to the issuer. The disclosure, whether oral or written, must be based on information provided by or under the supervision of a qualified person, and specified terminology is required when disclosing mineral resources and mineral reserves. NI 43-101 also requires a mining issuer to file a technical report at certain times, using the prescribed format of the Form, prepared by one or more qualified persons who may need to be independent of the issuer and the mineral property.

The intended audience of a technical report is the investing public and their advisors who, in most cases, will not be mining experts. The technical report should include sufficient context and cautionary language to allow a reasonable investor to understand the nature, importance and limitations of the data, interpretations and conclusions summarized in the report.

### *History*

NI 43-101 was first adopted in 2001, and most recently amended in 2011 when the CSA adopted new versions of NI 43-101, the Form and the Companion Policy 43-101CP to National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (the **Companion Policy**) that:

- eliminated or reduced the scope of certain requirements,
- reflected changes that had occurred in the mining industry,
- provided more flexibility to mining issuers and qualified persons in certain areas, including to accept new foreign professional associations and designations, and reporting codes as they arise or evolve, and
- clarified or corrected areas where the previous disclosure requirements were not having the effect we intended.

Since NI 43-101 was last revised in 2011, the mining industry has experienced market highs and lows and has seen numerous changes, including:

- an update by the Canadian Institute of Mining, Metallurgy and Petroleum (**CIM**) of the **CIM Definition Standards** for Mineral Resources and Mineral Reserves (**CIM Definition Standards**) and the **CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines** (**CIM Best Practice Guidelines**),
- emerging demand for commodities related to the growth in green energy and carbon neutral initiatives,
- increased investor awareness of the risks related to mineral project development, including demand for information about the environmental and social impacts, and
- an overhaul by other influential mining jurisdictions (including Australia and the United States) of their mineral resource/mineral reserve reporting codes and associated disclosure standards, including updates to the Committee for Mineral Reserves International Reporting Standards (**CRIRSCO**) template, which is the established international standard for the public reporting of exploration targets, exploration results, mineral resources and mineral reserves.

Since 2011, the CSA has continually monitored the mineral disclosure requirements in NI 43-101, and gathered data evidencing deficiencies identified through continuous disclosure reviews, prospectus reviews, and targeted issue-oriented reviews (collectively, **Mining Reviews**). These deficiencies include:

- qualified persons failing to properly assess their independence, competence, expertise or relevant experience related to the commodity, type of deposit or the items for which they take responsibility in technical reports,
- poor quality of scientific and technical disclosure in technical reports for early stage exploration properties for new stock exchange listings,
- inadequate mineral resource estimation disclosure, including disclosure related to reasonable prospects for eventual economic extraction,
- misuse of preliminary economic assessments, and
- inadequate disclosure of all business risks related to mineral projects.

## Consultation Questions

### A. Improvement and Modernization of NI 43-101

The disclosure items in the Form have generally remained unchanged since NI 43-101 was adopted in 2001, with some reorganization for advanced stage properties in 2011.

1. Do the disclosure requirements in the Form for a pre-mineral resource stage project provide information or context necessary to protect investors and fully inform investment decisions? Please explain.

The disclosure requirements as they exist are fine with respect to fully informing investment decisions (protecting investors requires the active participation of the investors which is not a given). However, depending on the skill of the author, deliberately or accidentally, a technical report can nominally meet the disclosure requirements and be totally obfuscatory, so the weakness lies not with the Form, but with the interpretation of the Form and the execution of the technical report.

2. a) Is there an alternate way to present relevant technical information that would be easier, clearer, and more accessible for investors to use than the Form? For example, would it be better to provide the necessary information in a condensed format in other continuous disclosure documents, such as a news release, annual information form or annual management's discussion and analysis, or, when required, in a prospectus?

Doubtful. Firstly, putting the information that would otherwise be contained in a technical report into AIFs or other forms would require that potential investors read those which takes more work than reading a 43-101 report, so that approach would only be better if it could be demonstrated that disclosure documents etc., are widely read. Secondly, NI 43-101 technical reports are popular with Canadian investors and have become a highly regarded standard in many non-43-101 jurisdictions, which suggests that they fill a need and are perceived as credible, which further suggests that diminishing their role as purveyors of technical information would probably not be in the best interests of the mining and investment communities.

- b) If so, for which stages of mineral projects could this alternative be appropriate, and why?

Not so.

3. a) Should we consider greater alignment of NI 43-101 disclosure requirements with the disclosure requirements in other influential mining jurisdictions?

A good idea but only if the disclosure requirements of other influential mining jurisdictions are clearly superior to those of NI 43-101. None come immediately to mind although that may change over time, although it seems that other jurisdictions are gravitating towards NI 43-101 – the SEC SK1300 reporting requirements for instance.

- b) If so, which jurisdictions and which aspects of the disclosure requirements in those jurisdictions should be aligned, and why?

One to avoid is JORC with their Table 1 of which, for no obvious reason, they seem immensely proud.

4. Paragraph 4.2(5)(a) of NI 43-101 permits an issuer to delay up to 45 days the filing of a technical report to support the disclosure in circumstances outlined in paragraph 4.2(1)(j) of NI 43-101. Please explain whether this length of time is still necessary, or if we should consider reducing the 45-day period.

Whether the 45-day grace period is necessary or not, many companies put out a press release disclosing the contents of a technical report and only then commit to the completion of that technical report, so the delay appears to be used mostly as a way to expedite public disclosure, so it is a marketing tool. This is inherently neither good nor bad so there is no obvious reason to change it.

In recent years, CSA staff have observed mining issuers making use of new technologies to conduct exploration on their properties, including the use of drones. During the COVID-19 pandemic, we received inquiries from qualified persons about the possible use of remote technologies to conduct the current personal inspection.

5. a) Can the investor protection function of the current personal inspection requirement still be achieved through the application of innovative technologies without requiring the qualified person to conduct a physical visit to the project?

In some circumstances – for instance, drone imagery - would permit a QP to determine whether there was any new disturbance on a property since the time of the last visit but there are practical limitations to ground coverage and motivated companies could always be selective or imaginative in what parts of the property are covered.

- b) If remote technologies are acceptable, what parameters need to be in place in order to maintain the integrity of the current personal inspection requirement?

The drone operator would have to be independent of the client company so perhaps the easiest approach would be to make the QP responsible for hiring the drone operator and setting the objectives of the drone survey, and allowing the release of that coverage to the client company after it has been reviewed by the QP.

## **B. Data Verification Disclosure Requirements**

Mineral projects commonly pass through the hands of several property holders, each generating exploration and drilling data. Using data collected from former operators prior to the current issuer's involvement in the project (**legacy data**) may be legitimate, but this data needs to be carefully verified, and transparently documented in technical reports. CSA staff see inadequate data verification disclosure at every project stage, from early stage exploration properties to feasibility studies.

Describing sample preparation, security, analytical procedures, and quality assurance/quality control (**QA/QC**) measures is critical to an understandable mineral resource estimate. Qualified persons must state their professional opinion on those processes, explain the steps they took to verify the integrity of the data, and state their professional opinion whether the data suits the purpose of the technical report. CSA staff emphasized these requirements in both CSA Staff Notice 43-309 *Review of Website Investor Presentations by Mining Issuers* and CSA Staff Notice 43-311 *Review of Mineral Resource Estimates in Technical Reports (CSA Staff Notice 43-311)*.

Data verification as defined in section 1.1 and outlined in section 3.2 of NI 43-101 applies to all scientific and technical disclosure made by the issuer on material properties. For example, data verification:

- requires accurate transcription from the original source, such as an original assay certificate,
- is not adequate when limited to transcribing data from a previous technical report,
- is not limited to technical reports but also to other disclosure such as websites, news releases, corporate presentations, and other investor relations material, and
- is not limited to the drill hole database and must be completed for all data in a technical report.

6. Is the current definition of data verification adequate, and are the disclosure requirements in

section 3.2 of NI 43-101 sufficiently clear?

Yes.

Item 12: Data Verification of the Form addresses a core principle of NI 43-101 and is a primary function of qualified persons. Mining Reviews demonstrate that disclosure in this item is often non-compliant. For example, we do not consider any of the following to be adequate data verification procedures by the qualified person:

- QA/QC measures conducted by the issuer or laboratory;
- database cross-checking to ensure the functionality of mining software;
- reliance on data verification by the issuer or other qualified persons related to previously filed technical reports; and
- unqualified acceptance of legacy data, such as disclosing that former operators followed “industry standards”.

In addition, qualified persons frequently limit data verification procedures to the drill hole data set, resulting in a general failure to meet the disclosure requirements of Item 12 of the Form, which apply to all scientific and technical information in a technical report.

7. How can we improve the disclosure of data verification procedures in Item 12 of the Form to allow the investing public to better understand how the qualified person ascertained that the data was suitable for use in the technical report?

Drill data is easier to interrogate than, for instance, soil sample or other sample media data or geophysical data because it is often duplicated or repeated and most details of its derivation are known – core size, sampling method, analytical method, etc. and the verification outcome can be quantified. The same commonly cannot be applied to soil sample data or other types of surveys. Drill data is also commonly more critical to the recognition and quantification of mineralization than other data types so it is reasonable that it gets more attention than other data types.

For all data types, including legacy data, it is commonly not possible to determine how the data was obtained or processed or filtered, etc., so it cannot be exhaustively verified. It might therefore be appropriate to require the QP to state, rather than just that they are happy with the data for the purposes intended, what the limits to the verification are: for instance if the verification is constrained by unknown analytical laboratories or procedures, unverifiable local grid coordinates, reclamation of drill collars and trenches prior to site inspection etc., all of that could be stated in a cautionary statement at the end of Section 12 immediately before the statement that the data is suitable for use.

8. Given that the current personal inspection is integral to the data verification, should we consider integrating disclosure about the current personal inspection into Item 12 of the Form rather than Item 2(d) of the Form?

I always thought it was. Section 2(d) is just an acknowledgement that a site inspection took place, and the details go into Section 12.

### C. Historical Estimate Disclosure Requirements

In spite of extensive guidance in the Companion Policy, CSA staff see significant non-compliant disclosure of historical estimates. We remind issuers that non-compliance with section 2.4 of NI 43-101 can trigger the requirement to file a technical report under subsection 4.2(2) of NI 43-101. Examples of non-compliance include:

- failure to review and refer to the original source of the historical estimate,
- failure to include the cautionary statements required by paragraph 2.4(g) of NI 43-101, or inappropriate modification of such statements,
- failure to include required disclosure of key assumptions, parameters and methods used to prepare the historical estimate, and
- inappropriate disclosure by an issuer of a previous estimate.

9. Is the current definition of historical estimate sufficiently clear? If not, how could we modify the definition?

It is clear. However, it is also clear that many people who make disclosures are not familiar with, or choose to ignore, that definition, so these things happen.

10. Do the disclosure requirements in section 2.4 of NI 43-101 sufficiently protect investors from misrepresentation of historical estimates? Please explain.

Yes, if they are adhered to.

### D. Preliminary Economic Assessments

The disclosure requirements for preliminary economic assessments were substantially modified in 2011, resulting in unintended consequences requiring additional guidance published in CSA Staff Notice 43-307 *Mining Technical Reports – Preliminary Economic Assessments* in August 2012.

Mining Reviews continue to show that preliminary economic assessment disclosure remains problematic for issuer compliance and, more importantly, is potentially harmful to investors. While the inclusion of inferred mineral resources is a recognized risk to the realization of the preliminary economic assessment, CSA staff's view is that the broad, undefined range of precision of a preliminary economic assessment also contributes to that risk. This range of

precision is incongruent with one of the core principles of NI 43-101, which is that investors should be able to confidently compare the disclosure between different projects by the same or different issuers. In addition, CSA staff see evidence of modifications to cautionary language required by subsection 2.3(3) of NI 43-101 that render this provision less effective.

11. Should we consider modifying the definition of preliminary economic assessment to enhance the study's precision? If so, how? For example, should we introduce disclosure requirements related to cost estimation parameters or the amount of engineering completed?

A PEA is a *conceptual study*, with limits of precision typically in the +/-30% to 50% range. If the precision is enhanced (which is to say narrowed), it would not be a PEA. It may help the interests of the investing public if an introductory statement was required that set out the limits of precision and the amount of engineering completed – typically less than 5%, commonly none. The investing public may not absorb the significance of that disclosure but at least they would have been informed.

12. Does the current cautionary statement disclosure required by subsection 2.3(3) of NI 43-101 adequately inform investors of the full extent of the risks associated with the disclosure of a preliminary economic assessment? Why or why not?

The language of, and items included in, Sections 2.3(3)(a) and (b) are fine. The problem is The Emperor's New Clothes phenomenon: everybody wants to believe. Mineral resource statements, including Inferred Resources, are widely regarded as gospel, even by people who generate them, as are all the other bits and pieces that go into the study on top of those estimated resources – pit slopes, metal recoveries, operating costs, capital costs, and so on. They are treated as real even though by definition they are highly uncertain, because if doubt were to be expressed about one aspect of the study, then, poof! the whole thing collapses. It may therefore be appropriate to require that the word "Conceptual" be added to "Preliminary Economic Assessment" so that the reader is reminded that a PEA is an exercise in asking "What If?" questions to which the answers are never better than "Maybe" or "Maybe if we are lucky", rather than being regarded as a definitive forecast of the economic potential of the property.

As for 2.3(3)(c), if a PEA is issued after a PFS or FS, it is probable that the PEA was undertaken because the outcomes included in the PFS or FS have been called into doubt. It would therefore be reasonable to require that only the latest study, regardless of its level, is current. If a PEA follows a FS, the FS becomes historic and no longer current.

13. Subparagraph 5.3(1)(c)(ii) of NI 43-101 triggers an independence requirement that may not apply to significant changes to preliminary economic assessments. Should we introduce a specific independence requirement for significant changes to preliminary economic assessments that is unrelated to changes to the mineral resource estimate? If so, what would be a suitable significance threshold?

For consistency, why not use the same threshold?



In 2011, we broadened the definition of preliminary economic assessment in NI 43-101 in response to industry concerns that issuers needed to be able to take a step back and re-scope advanced properties based on new information or alternative production scenarios. In this context, the revised definition was based on the premise that the issuer is contemplating a significant change in the existing or proposed operation that is materially different from the previous mining study.

CSA staff continue to see considerable evidence of preliminary economic assessment disclosure, subsequent to the disclosure of mineral reserves, which is potentially misleading and harmful to investors. In many cases, issuers continue to disclose an economic and technically viable mineral reserve case, while at the same time disclosing a conceptual alternative preliminary economic assessment with more optimistic assumptions and parameters. In many cases, the two are mutually exclusive options.

14. Should we preclude the disclosure of preliminary economic assessments on a mineral project if current mineral reserves have been established?

If the PEA is undertaken because the issuers are re-scoping the property, that would suggest the PFS / FS is no longer valid and if it is no longer valid, it should be no longer current. The issuance of a PEA should therefore trigger that change in status of any preceding studies - unless the PEA addresses some non-critical part of the overall project that would, regardless of the outcome, not materially affect the outcome obtained by the PFS / FS.

In some cases, issuers are disclosing the results of a preliminary economic assessment that includes projected cash flows for by-product commodities that are not included in the mineral resource estimate. This situation can arise where there is insufficient data for the grades of the by-products to be reasonably estimated or estimated to the level of confidence of the mineral resource. We consider the inclusion of such by-product commodities in the preliminary economic assessment to be misleading.

15. Should NI 43-101 prohibit including by-products in cash flow models used for the economic analysis component of a preliminary economic assessment that have not been categorized as measured, indicated, or inferred mineral resources? Please explain.

A no-brainer. The answer is yes. How can you assess the economic impact of a commodity of unknown quantity or grade?

## **E. Qualified Person Definition**

CSA staff have substantial evidence that the current qualified person definition is not well understood, and have seen an increase in practitioners with less than 5 years of experience as professional engineers or geoscientists acting as qualified persons in technical reporting. CSA staff have directed many comments to issuers informing them that the qualified person does not meet the requirements of NI 43-101 in the circumstance under review.

16. Is there anything missing or unclear in the current qualified person definition? If so, please explain what changes could be made to enhance the definition.

The five years part is unambiguous, but what is not self-evident is whether that five years starts when a person becomes a geologist or engineer in training or when said person graduates to a fully-fledged P.Geol. or P. Eng.

Currently, the qualified person definition requires the individual to be an engineer or geoscientist with a university degree in an area of geoscience or engineering related to mineral exploration or mining.

17. Should paragraph (a) of the qualified person definition be broadened beyond engineers and geoscientists to include other professional disciplines? If so, what disciplines should be included and why?

Only if there is a desire to do away with the reliance on other experts by bringing those experts into the preparation of the technical report.

### ***Qualified person independence***

The gatekeeping role of the qualified person is essential for the protection of the investing public. CSA staff see evidence of issuers and qualified persons failing to properly apply the objective test of independence set out in section 1.5 of NI 43-101. The Companion Policy provides certain examples of specific financial metrics to consider. This list is not exhaustive. There are multiple factors, beyond financial considerations, that must also be considered in determining objectivity, including the relationship of the qualified person to the issuer, the property vendor, and the mineral project itself.

18. Should the test for independence in section 1.5 of NI 43-101 be clarified? If so, what clarification would be helpful?

The qualifications set out in CPNI43-101 seem explicit and exhaustive to me, including relationship of the QP with the issuer, property vendor and the property, but obviously, that is not universally the case or this question would not be here.

### ***Named executive officers as qualified persons***

CSA staff are concerned that the gatekeeping role of the qualified person conflicts with the fiduciary duties of directors and officers. We have seen situations where the self-interest of such individuals in promoting an attractive outcome for the mineral project overrides their professional public interest obligation as a gatekeeper.

19. Should directors and officers be disqualified from authoring any technical reports, even in circumstances where independence is not required?

Not so long as their lack of independence is stated explicitly, and they do not assume responsibility for portions of the report that are key to the outcome of the report – for instance mineral resources and economic studies.

## **F. Current Personal Inspections**

The current personal inspection requirement in section 6.2 of NI 43-101 is a foundational element of the qualified person's role as a gatekeeper for the investing public. It enables the qualified person to become familiar with conditions on the property, to observe the property geology and mineralization, and to verify the work done on the property. Additionally, it provides the only opportunity to assess less tangible elements of the property, such as artisanal mining or access issues, and to consider social licence and environmental concerns. The current personal inspection is distinctly different from conducting exploration work on the property; it is a critical contributor to the design or review, and recommendation to the issuer, of an appropriate exploration or development program for the property.

20. Should we consider adopting a definition for a “current personal inspection”? If so, what elements are necessary or important to incorporate?

This question is answered in the introductory paragraph above. A property inspection does all those things and there is no substitute.

CSA staff's view is that qualified persons must consider their expertise and relevant experience in determining whether they are suitable to conduct the current personal inspection. For example, geoscientists are generally not qualified to conduct elements of the current personal inspection related to potential mining methods or mineral processing. Similarly, engineers may not be qualified with respect to elements of the geoscience. In such cases, more than one qualified person may be required to conduct a current personal inspection, particularly for an advanced property.

21. Should the qualified person accepting responsibility for the mineral resource estimate in a technical report be required to conduct a current personal inspection, regardless of whether another report author conducts a personal inspection? Why or why not?

Covid made this a fraught question but that has largely gone away. So, in the absence of pandemics, yes, a person responsible for a mineral resource estimate should be required to do a personal inspection of the property. No amount of reading property descriptions authored by other persons can replace the insights obtained from standing on the ground.

22. In a technical report for an advanced property, should each qualified person accepting responsibility for Items 15-18 (inclusive) of the Form be required to conduct a current personal inspection? Why or why not?

Not always. Depending on the state of advancement of the property there may be nothing for some of the QPs to see or do. For instance, if there is no mill, there is nothing to be gained by obliging the metallurgist to do a site inspection. In general, the QP can determine whether or not they should do a site inspection on the basis of the current state of the property and most QPs are unwilling to sign off on something they may have misunderstood.

We expect issuers to consider the current personal inspection requirement in developing the timing and structure of their transactions and capital raising. Subsection 6.2(2) of NI 43-101 does allow an issuer to defer a current personal inspection in limited circumstances related to seasonal weather, provided that the issuer refiles a new technical report once the current personal inspection has been completed. However, this provision has been used infrequently since it was adopted in 2005. In rare circumstances where issuers do rely on this provision, CSA staff see significant non-compliance with the refiling requirement.

23. Do you have any concerns if we remove subsection 6.2(2) of NI 43-101? If so, please explain.

It would make life simpler for all parties if it was removed.

## G. Exploration Information

CSA staff continue to see significant non-compliant disclosure of exploration information, including inadequate disclosure of:

- the QA/QC measures applied during the execution of the work being reported on in the technical report,
- the summary description of the type of analytical or testing procedures utilized, and
- the relevant analytical values, widths and true widths of the mineralized zone.

24. Are the current requirements in section 3.3 of NI 43-101 sufficiently clear? If not, how could we improve them?

I recommend that you add the requirement that the if the QP was not able to review all of those items, he or she must state explicitly which items were not reviewed and why – the information previously existed but was lost or the information never existed because it was not collected, etc. As the requirement now exists, it is easy to emphasize the positive and ignore the negative.

## H. Mineral Resource / Mineral Reserve Estimation

In CSA Staff Notice 43-311 published in June 2020, a comprehensive review of disclosure in technical reports identified several areas of inadequate disclosure of mineral resource estimates.

### *Reasonable prospects for eventual economic extraction*

CIM Definition Standards guidance states that a qualified person should clearly state the basis for determining the mineral resource estimate and that assumptions should include metallurgical recovery, smelter payments, commodity price or product value, mining and processing method, and mining, processing and general and administrative costs. Revisions to the CIM Definition Standards in 2014 and CIM Best Practices Guidelines in 2019 emphasized the requirement for the practitioner to clearly articulate these assumptions and how the estimate was developed.

Mining Reviews provide evidence of technical reports that lack adequate disclosure on metal recoveries, assumed mining and processing methods and costs, and constraints applied to prepare the mineral resource estimate to demonstrate that the mineralized material has reasonable prospects for eventual economic extraction.

25. Should Item 14: Mineral Resource Estimates of the Form require specific disclosure of reasonable prospects for eventual economic extraction? Why or why not? If so, please explain the critical elements that are necessary to be disclosed.

The requirement for Reasonable Prospects is a good thing because it places some constraint on what can be called a mineral resource. However, the concept has limitations: most mineral resource estimates are done on properties that are at an early stage of exploration and for which no specific information exists regarding metal recoveries, mining and processing methods and costs etc. Therefore, generic, industry-typical costs are the most reasonable substitute. The source of these numbers is normally explained in the technical report, together with the source of the metal prices, and their generic nature is explicit in the explanation, so their level of accuracy should not be misleading. There is no point in demanding more accurate numbers if they don't exist.

For more advanced properties for which the resource estimate will be used for engineering purposes, the mining engineer commonly assumes responsibility for the generation of the constraining pit and generally has more accurate numbers than are available for a greenfields project. That is also explicit in the report so I would argue that the Reasonable Prospects requirement as it exists works as intended.

### ***Data verification***

Disclosure of a mineral resource estimate is a significant milestone for an issuer. CSA Staff Notice 43-311 noted that disclosure of data verification procedures and results was one of the weakest areas in the mineral resource estimate review, stating that in technical reports reviewed by CSA staff, more than 20% had incomplete disclosure concerning the qualified person's data verification procedures and results.

26. a) Should the qualified person responsible for the mineral resource estimate be required to conduct data verification and accept responsibility for the information used to support the mineral resource estimate? Why or why not?

From personal experience in almost all cases the QP who does the mineral resource estimate is the same person who does the data verification. In those exceptional cases, the person who assumed responsibility for data verification was a specialist in that subject and dedicated far more time and rigor than the minimum required (generally a review of 10% of the data). So, as long as some qualified person is doing the data verification, there is no obvious reason why it has to be the person doing the resource estimate.

- b) Should the qualified person responsible for the mineral resource estimate be required to conduct data verification and accept responsibility for legacy data used to support the mineral resource estimate? Specifically, should this be required if the sampling, analytical, and QA/QC information is no longer available to the current operator. Why or why not?

As for a) it doesn't have to be the QP doing the resource estimate but whoever does the data verification should be obliged to accept responsibility for legacy data. Legacy data is such a common element of resource estimate data that the requirement for legacy data verification is widely acknowledged by most exploration companies as a necessary precondition for a resource estimate, and they incorporate verification drillholes into the drill program before undertaking a mineral resource estimate. Without that sort of verification there is no obvious basis on which to accept legacy data as credible so there is typically not much argument.

### ***Risk factors with mineral resources and mineral reserves***

Paragraph 3.4(d) of NI 43-101 requires issuers to identify any known legal, political, environmental and other risks that could materially affect the potential development of the mineral resources or mineral reserves. In addition, Items 14(d) and 15(d) of the Form require the qualified person to provide a general discussion on the extent to which the mineral resource or mineral reserve estimate could be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors.

Many technical reports only provided boilerplate disclosure about potential risks and uncertainties that are general to the mining industry. Failure to set out meaningful known risks specific to the mineral project make mineral resource and mineral reserve disclosure potentially misleading.

27. How can we enhance project specific risk disclosure for mining projects and estimation of mineral resources and mineral reserves?

Most technical reports only provide boilerplate disclosure about potential risks because the author(s) is/are not qualified to provide more. Most authors are geologists who know nothing about environmental, legal, taxation, socio-economic etc. risks so it would be potentially misleading to be more specific. When I write that "I am not aware of..." I am not saying those risks do not exist, I am saying that they may exist but I am not aware of them, which is full disclosure but of something entirely different than the risks in question. I suspect most authors mean the same thing. If the CSA regards the discussion of these risks as an important aspect of a technical report, they should introduce the requirement that they be addressed by appropriately qualified persons – environmentalists, lawyers, etc., and the geological QP can add a paragraph in Section 3 to the effect that he/she has relied upon those other experts for those items.



## I. Environmental and Social Disclosure

In recent years, CSA staff have seen an increase in public and investor awareness of environmental and social issues impacting mineral projects. Item 4: Property Description and Location and Item 20: Environmental Studies, Permitting and Social or Community Impact of the Form allow for disclosure of relevant environmental and social risk factors for the mineral project. However, these disclosure requirements related to environmental and social issues have remained largely unchanged since NI 43-101 was adopted in 2001.

28. Do you think the current environmental disclosure requirements under Items 4 and 20 of the Form are adequate to allow investors to make informed investment decisions? Why or why not?

For greenfields properties, the availability of environmental data is generally the same as data for Reasonable Prospects, which is to say there is none. For more advanced properties, there typically are environmental and social impact studies etc. and those are addressed in engineering studies. From a practical perspective, I would argue that the current disclosure requirements are adequate.

29. Do you think the current social disclosure requirements under Items 4 and 20 of the Form are adequate to allow investors to make informed investment decisions? Why or why not?

As for question 28.

30. Should disclosure of community consultations be required in all stages of technical reports, including reports for early stage exploration properties?

Yes, disclosure should be required if community consultations have taken place.

## **J. Rights of Indigenous Peoples**

We recognize Indigenous Peoples to include First Nations, Inuit and Métis Peoples in Canada. We also recognize that issuers have projects in jurisdictions outside of Canada, and those jurisdictions will have Indigenous Peoples.

The unique legal status of Indigenous Peoples has received national and international recognition. For many projects, the rights of Indigenous Peoples overlap with legal tenure, property rights and governance issues. We believe that disclosure of these rights, and the Indigenous Peoples that hold them, forms an essential part of an issuer's continuous disclosure obligations.

Item 4 of the Form requires disclosure of the nature and extent of surface rights, legal access, the obligations that must be met to retain the property, and a discussion of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the property. We are interested in hearing whether other disclosures should be included in the Form, or the issuer's other continuous disclosure documents, that relate to the relationship of the issuer with Indigenous Peoples whose traditional territories underlie the property.

31. What specific disclosures should be mandatory in a technical report in order for investors to fully understand and appreciate the risks and uncertainties that arise as a result of the rights of Indigenous Peoples with respect to a mineral project?

If a property is located within an area within which Indigenous Peoples have legal rights, it should be necessary to disclose that in a technical report.

32. What specific disclosures should be mandatory in a technical report in order for investors to fully understand and appreciate all significant risks and uncertainties related to the relationship of the issuer with any Indigenous Peoples on whose traditional territory the mineral project lies?

It should be mandatory to state that the property is located within an area in which Indigenous Peoples have legal rights or claims, and whether the company has entered into discussions leading to, or has consummated an agreement with the relevant parties with respect to those rights.

33. Should we require the qualified person or other expert to validate the issuer's disclosure of significant risks and uncertainties related to its existing relationship with Indigenous Peoples with respect to a project? If so, how can a qualified person or other expert independently verify this information? Please explain.

These are legal matters and should be validated by persons with the appropriate legal qualifications. Another item for Reliance on Other Experts.

## **K. Capital and Operating Costs, Economic Analysis**

Capital and operating costs assumptions are integral to the financial and economic analysis of mineral projects. We see longstanding evidence, including industry-based case studies, of significant variance between disclosed cost estimates in technical reports and actual costs as projects are developed. This variance can have negative impacts on investors who rely on financial disclosure in technical reports.

***Capital and operating costs***

34. Are the current disclosure requirements for capital and operating costs estimates in Item 21 of the Form adequate? Why or why not?

Item 21 in NI43-101F1 is slim, and the latitude permitted by that slimness may lead to misinterpretation or abuse. The requirement to disclose the basis or source of cost estimates, and their currency and assumed relative accuracy, may be useful in reducing the lack of clarity.

35. Should the Form be more prescriptive with respect to the disclosure of the cost estimates, for example to require disclosure of the cost estimate classification system used, such as the classification system of the Association for the Advancement of Cost Engineering (AACE International)? Why or why not?

The use of a recognized classification system would introduce consistency to capital cost estimates and is therefore a good idea.

36. Is the disclosure requirement for risks specific to the capital and operating cost assumptions adequate? If not, how could it be improved?

I don't regard myself as being qualified to respond to this question.

***Economic analysis***

As stated above, a core principle of NI 43-101 is to require disclosure that will allow investors to be able to confidently compare the disclosure between different projects by the same or different issuers. Standardized disclosure is fundamental to this principle.

37. Are there better ways for Item 22 of the Form to require presentation of an economic analysis to facilitate this key requirement for the investing public? For example, should the Form require the disclosure of a range of standardized discount rates?

I am not aware how commonly economic analyses include the impact of a range of discount rates but Item 22.(e) deals with sensitivity analyses and discount rates could be added here

**L. Other**

38. Are there other disclosure requirements in NI 43-101 or the Form that we should consider removing or modifying because they do not assist investors in making decisions or serve to protect the integrity of the mining capital markets in Canada?

I am not aware of any parts of NI43-101 that are superfluous so I would say not.

## **Comments and Submissions**

We invite participants to provide input on the issues outlined in this Consultation Paper.

Please submit your comments in writing on or before July 13, 2022. Please send your comments by email in Microsoft Word format.

Please address your submission to all of the CSA as follows:

British Columbia Securities Commission

Alberta Securities Commission

Financial and Consumer Affairs Authority of Saskatchewan

Manitoba Securities Commission

Ontario Securities Commission

Autorité des marchés financiers

Financial and Consumer Services Commission, New Brunswick

Superintendent of Securities, Department of Justice and Public Safety, Prince Edward Island

Nova Scotia Securities Commission

Office of the Superintendent of Securities, Service NL

Northwest Territories Office of the Superintendent of Securities

Office of the Yukon Superintendent of Securities

Nunavut Securities Office

Deliver your comments only to the addresses below. Your comments will be distributed to the other participating CSA.

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We cannot keep submissions confidential because securities legislation in certain provinces requires publication of the written comments received during the comment period. All comments received will be posted on the websites of each of the Alberta Securities Commission at [www.albertasecurities.com](http://www.albertasecurities.com), the Autorité des marchés financiers at [www.lautorite.qc.ca](http://www.lautorite.qc.ca) and the Ontario Securities Commission at [www.osc.gov.on.ca](http://www.osc.gov.on.ca). Therefore, you should not include personal information directly in comments to be published. It is important that you state on whose behalf you are making the submission.

## Questions

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