A_S

ARSENEAU Consulting Services

June 15, 2022

To:

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

In answer to your request for comments on the CSA consultation paper 43-101, ARSENEAU Consulting Services Inc., is pleased to provide the following feedback:

Consultation Questions

A. Improvement and Modernization of NI43-101

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.

Yes, the current requirements of the form are sufficient and provide a good basis for future technical reports. The disclosure using the same format offers the investors a good basis to compare the property with other properties easily and quickly.

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?

No, the current requirements are fine.

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

No comments.

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

Yes, the SEC requirements that the Company take responsibility of the property definition is better than having the QP sign off or disclaiming the property title under Section 3. This is better than the current NI 43-101 requirement for the investor.

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

SEC.

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.

The 45 days is adequate and could be extended to 60 days but that would only lead to longer delays between the news release and the report.

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?

No. The advantage of the site visit is that it is not staged, the Qualified Person (QP) can ask to see anything and may see somethings that the Issuer is trying to avoid. This can't happen with a video tour where the Issuer is controlling the camera.

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?

If remote "site visits" were to take place (not preferable) an independent person would need to be involved to host the visit. This is not a good option.

B. Data Verification Disclosure Requirements

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, drill data is not like fruits and vegetables, it doesn't go bad because it is old. The main issue with "legacy data" is not the lack or (undocumented QA/QC). Most historical assays are valid. Assay techniques have been good and well established for decades. Most laboratories have used well defined and proven assay techniques for years. Nearly all laboratories have used internal standards and most major exploration companies have been using QA/QC procedures since the early 1970s. The information was not always documented but it did exist and was used in most drill programs.

Furthermore, the fact that several Issuers are producing drill results that are similar is a good indication that the historical and current data are robust (not the other way around). There has never been fraud based on legacy data, the security of the investors is not being put in danger by using legacy data, the opposite is true. The investors can take comfort that the new data agree with the historical information from the Property being investigated.

The biggest issue with legacy data is location of the actual drill holes. Most historical drilling (in Canada) was done on local grids that no longer exist, locating legacy drill holes in UTM is tricky and often not done correctly. Assay quality or "undocumented QA/QC" is minor compared to drill holes being located several hundred metres in the wrong place.

If it is the intent of the regulators to prevent the transcription of photocopies of assay results from previous reports, then the guidelines in the companion policy need to be expanded and modified.

Item 12: Data Verification

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?

Data verification against original data whenever possible is the best. However, data verification by other independent QP should not be disregarded as being invalid and useless. "The gatekeeping role of the qualified person is essential for the protection of the investing public". Investors and the public are told that they can rely on technical reports prepared by QPs so why is it that a QP can not rely on information in a technical report prepared by an independent QP? Isn't this one of the basic foundations of the Instrument, the reliance on the qualified person?

It is unproductive to have to redo all the QA verification every time an Issuer changes QP. The QP should be able to review the work done by the previous independent QP and decide if the work is of sufficient quality for him/her to acceptable the data or not.

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?

Yes, most technical reports include the site visit results in Item 12 of the report. The majority of the QP's data verification is done during the site visit.

C. Historical Estimate Disclosure Requirements

9. Is the current definition of historical estimate sufficiently clear?

The current definition is clear.
If not, how could we modify the definition?

The definition could be modified to include all previous estimates instead of only the estimates by previous issuers.

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

No, there is no protection provided with the current requirements. This should be simplified to simply stating that the estimates are historical, have not been reviewed and should not be relied upon. The reconciliation with current standards, the requirement of the work necessary to make the estimate current and the details of how the historical estimate was prepared offers no protection whatsoever and include cumbersome language providing no comfort. It should be sufficient to state that the estimate is historical state if it is relevant and to what extend and if it is reliable or not. By providing all the additional information required under the instrument, the historical estimates are given too much credence and investors may be inclined to "rely on them" as the additional disclosure makes them appear "almost current" when they shouldn't.

D. Preliminary Economic Assessments

11. Should we consider modifying the definition of preliminary economic assessment to enhance the study's precision?

No.

If so, how?

the PEA could have additional cautionary language stating how the assumptions were derived (i.e. from similar projects, from preliminary engineering studies or just from baseline documents).

For example, should we introduce disclosure requirements related to cost estimation parameters or the amount of engineering completed?

Yes, the costs structures (mining, G&A, Metallurgical etc., could be better defined in most PEAs.) Disclosure of how the costs were generated would improve the disclosure.

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?

Yes, the disclosure requirements are sufficient, the investor is made aware that Inferred resources are included so that is sufficient disclosure. The Disclosure could be improved by comparing the impact of the inferred resource if the economics were shown with and without the inferred.

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?

Yes, any material changes to the project economics that translates into a material change to the Issuer should trigger a disclosure document that carries sufficient information describing the departure form the current technical report. While this could be achieved in a comprehensive news release, some circumstances will probably require a new technical report to address all the changes from the current report.

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

No, the disclosure of a PEA on part of a project with mineral reserves is a fact of several project. If a project's PEA presents a mutually exclusive option, this can be addressed with proper clear disclosure.

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?

Yes, metals not in the mineral resources should not be included in the cash flow model. The fact that these metals may show up in a metallurgical sample(s), this may not be representative of the average content of the entire deposit and applying these concentrations to the entire deposit is misleading and should be avoided.

E. Qualified Person Definition

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.

No. The current definitions do not specify that the five years of experience be only as a professional and the CSA staff should not be interpreting the definition as such. A person could have several years of experience before joining a professional association and the CSA staff should not ignore those years of experience or disregard them. Experience gained before joining a professional association has to be recognised.

17. Should paragraph (a) of the qualified person definition be broadened beyond engineers and geoscientists to include other professional disciplines?

Yes,

If so, what disciplines should be included and why?

Professional Biologists often contribute to technical reports, yet they are not considered as QP. This is an oversight that should be addressed by the CSA.

Qualified person independence

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

To the extend that the current definition doesn't specifically state the Property that is the subject of the technical report, it could be expanded to include the property as well as the Issuer.

Named executive officers as qualified persons

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

No, the issue of technical report is small when compared with the disclosure in News Releases and Web sites.

F. Current Personal Inspections

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

The current definition should be expanded to include relevant qualified person and remove the "QP who is supervising the preparation of the report".

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?

Yes.

Why or why not?

Preparing a mineral resource requires an understanding of the style of mineralization. While this can be derived to some extend by examining core photos. It is easier if the mineralization can be observed in the field and in drill core. By doing the site visit the resource geologist will get a better understanding of the style of mineralization, type of deposit that will be modelled, host rock and deposit mineralogy. While an estimate can be prepared without doing a visit, it is always preferable to a site visit if possible.

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?

No.

Why or why not?

For Greenfields Project, having the QP for Item 17 and Item 18 is pointless.

For operating mines then yes, it is reasonable to have QP for all items carry a site visit.

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

No, I don't see the reason for this requirement.

G. Exploration Information

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

Yes, they are clear. They could be simplified. Sub Section 3.3 (2) (a) is not necessary, Location and type of samples are addressed by other sub sections. Sub Section 3.3 (2) (b) is really only practical for early stage Project, for projects with several hundred drill holes this is interpreted as listing the location azimuth and dip of all drill holes.

H. Mineral Resource / Mineral Reserve Estimation

25. Should Item 14: Mineral Resource Estimates of the Form require specific disclosure of reasonable prospects for eventual economic extraction?

Yes.

Why or why not?

Given that the reasonable prospect of eventual economic extraction is part of the CIM definition, it should be a requirement of the Form.

If so, please explain the critical elements that are necessary to be disclosed.

At the very least the requirements should include metal price assumed recovery, mining costs and assumed mining method used to determine the reasonable prospect.

Data verification

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?

Yes

Why or why not?

Data forms the basis of the mineral resource estimate. The QP using it must be confident that all data used are reliable and acceptable for inclusion in the estimation.

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?

Yes, the QP has to accept all data. It is up to the QP to decide the level of validation required in order to accept the data, but the QP should state that the data are acceptable to inclusion in a resource estimate.

Specifically, should this be required if the sampling, analytical, and QA/QC information is no longer available to the current operator.

Yes.

Why or why not?

The QP has to decide if historical data are acceptable or not. There are several ways to verify historical data, even data where sampling or assay information is no longer available. The lack of QA/QC documentation doesn't necessarily mean that the historical data are invalid. A QA/QC program is a mean to evaluate data quality not a guarantee on data quality. Historical data can be of good quality even if QA/QC data is no longer available. Just because the information is no longer available doesn't mean that the data are not good. Data can be verified (validated) by doing some limited confirmation drilling. Not all holes have to be twinned to confirm historical data. It would be a disservice to industry if historical data have to be duplicated simply because QA/QC data were no longer available to the Issuer.

Risk factors with mineral resources and mineral reserves

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

Qualified Persons are not experts in legal, political, environmental matters, that's why Item 3 of the Form allows the QP to rely on other experts for these matters. The best way to enhance the "legal, political, environmental risks" is to have the issuer provide opinions by experts in these matters and the QP can then rely on these opinions. It is unrealistic to expect that the QP can provide a reliable opinion on these subjects.

I. Environmental and Social Disclosure

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?

Generally, yes.

Why or why not?

For early-stage Projects Item 4(h) of the form is sufficient in that it requires disclosure "to the extent known". For early-stage project, there are generally very few "known" risks. As the Project advances, risk may become clearer and the additional disclosure requirements of Item 20 covers the disclosure requirements adequately.

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?

Yes.

Why or why not?

For early-stage Projects Item 4(h) of the form is sufficient in that it requires disclosure "to the extent known". For early-stage project, there are generally very few "known" risks. As the Project advances, risk may become clearer and the additional disclosure requirements of Item 20 covers the disclosure requirements adequately.

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

Yes, but only to the extend to disclose if consultation has been initiated or not. Analysis of results of the consultation process should not be required for early-stage projects.

J. Rights of Indigenous Peoples

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?

Disclosure of Indigenous Peoples rights should not be addressed by the QP. Requiring specific disclosure on these matters will only result in more "boiler plate" disclosure. If the CSA staff require disclosure on First Nation Rights, then this disclosure should be addressed in the form of a legal opinion and Item 3 should be expanded so that the QP can disclaim the opinion under Item 3 of the Form.

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?

Technical reports shouldn't be the vehicle that investors use "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". These are complex issues that are well beyond the scope of a technical report. First Nation issues should be addressed by the Issuers continuous disclosure requirements, not in the technical report. QPs should not be required to provide opinions on these subjects, we are not qualified to provide opinions on these matters. QPs should be able to disclaim disclosure regarding Indigenous matters under Item 3 of the Form.

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?

No. QPs are not experts in these matters and QPs should not be providing opinions on matters that are outside of their expertise.

If so, how can a qualified person or other expert independently verify this information? Please explain.

QPs should not be allowed to provide opinions on matters outside their professional practice.

K. Capital and Operating Costs, Economic Analysis

Capital and operating costs

34. Are the current disclosure requirements for capital and operating costs estimates in Item 21 of the Form adequate?

No comments, this is not my area of expertise.

Why or why not?

No comments.

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)?

Maybe a more standardize format could be good but it will never resolve the issue of actual costs being higher than the estimated costs. Estimates are based on assumptions; a better disclosure of the assumptions may help guide the investors in the possible future issues with the estimated costs.

Why or why not?

No comments.

36. Is the disclosure requirement for risks specific to the capital and operating cost assumptions adequate?

No comments.

If not, how could it be improved?

No comments.

Economic analysis

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?

No comments.

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?

Item 2(d) is generally repeated in Item 12. It could be dropped from Item 2.

Disclosure under Item 11 of the Form could be simplified by removing Items 11 (a) to (c) and simply requiring the QP to provide an opinion of adequacy of sample preparation, security and analytical procedures. Including all the requirements of Items 11 (a) to (c) provide little comfort to the Investors, they are mainly concerned the opinion required in 11(d).

Item 14 (d) of the form in not necessary, this is generally adequately covered by Items 4 (c) to Item 4 (h) and 20 of the Form.

Dr.	Gilles Arseneau, P. Geo.