The following is a series of comments and questions that should be considered when preparing a NI43-101 technical report.

CONTENTS OF THE TECHNICAL REPORT

Item 1: **Title Page** - Include a title page setting out the title of the technical report, the general location of the mineral project, the name and professional designation of each qualified person and the effective date of the technical report.

Confusion cleared up - the title page and the cover page are not the same. Usually the title page is directly behind the cover page in the report and must include the above information. A sample tile page might be: The XYZ Zinc Exploration Project, (ABC Zinc Mine Scoping Study) located in Northern British Columbia, Canada. It is helpful to classify the project with words like exploration study, scoping study, prefeasibility study, and feasibility study and the metal involved in the project in the titles. Names of each QP must be on the page. And the effective date of the report. More on effective data later.

Item 2: **Table of Contents** - Provide a table of contents listing the contents of the technical report, including figures and tables.

Item 3: **Summary** - Provide a summary that briefly describes the property, its location, ownership, geology and mineralization, the exploration concept, the status of exploration, development and operations and the qualified person's conclusions and recommendations.

See course material for advice on summaries.

Item 4: **Introduction** - Include a description of

(a) who the technical report is prepared for;

(b) the purpose for which the technical report was 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 scope of the personal inspection on the property by each qualified person and author or, if applicable, the reason why a personal inspection has not been completed.

The company name, reason for the report (support a prospectus, listening, annual information form), data obtained from documents, site visits, interviews, number of days spent at site, persons relied on for information talked to. The introduction should also tell the reader the metal, status of the project (mine or exploration project),

It is sometimes surprising in technical reports how long it takes the author to identify the type of project that is being described, the metals or minerals mined.

The author should state at this point that the documents relied on for the report are referred to in the references section of the report.

Item 5: **Reliance on Other Experts** - If a qualified person preparing or supervising the preparation of all or a portion of the technical report is relying on a report, opinion or statement of a legal or other expert, who is not a qualified person, for information concerning legal, environmental, political or other issues and factors relevant to the technical report, the qualified person may include a disclaimer of responsibility in which the qualified person identifies the report, opinion or statement relied upon, the maker of that report, opinion or statement, the extent of reliance and the portions of the technical report to which the disclaimer applies.

In this part there are a number of questions that you must answer. If you have relied on other experts then state this. Usually the title of the property is a case in point. If there are reports prepared by other experts such as environmental, tailing disposal, then these should be disclosed at this point.

Item 6: **Property Description and Location** - To the extent applicable, with respect to each property reported on, describe

(a) the area of the property in hectares or other appropriate units;

(b) the location, reported by an easily recognizable geographic and grid location system;

(c) the type of mineral tenure (eg. claim, license, lease) and the identifying name or number of each;

(d) the nature and extent of the issuer's title to, or interest in, the property including surface rights, the obligations that must be met to retain the property, and the expiration date of claims, licences or other property tenure rights;

(e) how the property boundaries were located;

(f) the location of all known mineralized zones, mineral resources, mineral reserves and mine workings, existing tailing ponds, waste deposits and important natural features and improvements, relative to the outside property boundaries;

(g) to the extent known, the terms of any royalties, back-in rights, payments or other agreements and encumbrances to which the property is subject;

(h) to the extent known, all environmental liabilities to which the property is subject; and

(i) to the extent known, the permits that must be acquired to conduct the work proposed for the property, and if the permits have been obtained.

The list above may require some additional explanation. Mineral title for example is not the same in each country and terms and conditions of mineral claims should be explained.

Item 7: Accessibility, Climate, Local Resources, Infrastructure and Physiography - With respect to each property reported on, describe

(a) topography, elevation and vegetation;

(b) the means of access to the property;

(c) the proximity of the property to a population centre, and the nature of transport;

(d) to the extent relevant to the mineral project, the climate and the length of the operating season; and

(e) to the extent relevant to the mineral project, the sufficiency of surface rights for mining operations, the availability and sources of power, water, mining personnel, potential tailings storage areas, potential waste disposal areas, heap leach pad areas and potential processing plant sites.

Item 8: History - To the extent known, with respect to each property reported on, describe

(a) the prior ownership of the property and ownership changes;

(b) the type, amount, quantity and general results of exploration and development work undertaken by any previous owners or operators;

(c) historical mineral resource and mineral reserve estimates in accordance with section 2.4 of the Instrument, including the reliability of the historical estimates and whether the estimates are in accordance with the categories set out in sections 1.2 and 1.3 of the Instrument; and

(d) any production from the property.

Item 9: **Geological Setting -** Include a concise description of the regional, local and property geology.

Item 10: **Deposit Types** - Describe the mineral deposit type(s) 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.

Item 11: **Mineralization** - Describe the mineralized zones encountered on the property, the surrounding rock types and relevant geological controls, detailing length, width, depth and continuity, together with a description of the type, character and distribution of the mineralization.

Item 12: **Exploration** - Describe the nature and extent of all relevant exploration work conducted by, or on behalf of, the issuer on each property being reported on, including

(a) results of surveys and investigations, and the procedures and parameters relating to the surveys and investigations;

(b) an interpretation of the exploration information; and

(c) a statement as to whether the surveys and investigations have been carried out by the issuer or by a contractor and, if the latter, identifying the contractor.

INSTRUCTION: *If exploration results from previous operators are included, the qualified person or author must clearly identify the work conducted by, or on behalf of, the issuer.*

Item 13: **Drilling** - Describe the type and extent of drilling including the procedures followed and a summary and interpretation of all results. The relationship between the sample

length and the true thickness of the mineralization must be stated, if known, and if the orientation of the mineralization is unknown, state this.

Item 14: Sampling Method and Approach - Provide

(a) a brief description of sampling methods and relevant details of location, number, type, nature and spacing or density of samples collected, and the size of the area covered;

(b) a description of any drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results;

(c) a discussion of the sample quality, including whether the samples are representative, and any factors that may have resulted in sample biases;

(d) a description of rock types, geological controls, widths of mineralized zones and other parameters used to establish the sampling interval and identification of any significantly higher grade intervals within a lower grade intersection; and

(e) a summary of relevant samples or sample composites with values and estimated true widths.

Item 15: Sample Preparation, Analyses and Security - Describe sample preparation methods and quality control measures employed 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. Include

(a) a statement whether any aspect of the sample preparation was conducted by an employee, officer, director or associate of the issuer;

(b) details regarding sample preparation, assaying and analytical procedures used, the name and location of the analytical or testing laboratories and whether the laboratories are certified by any standards association and the particulars of any certification;

(c) a summary of the nature and extent of all quality control measures employed and check assay and other check analytical and testing procedures utilized, including the results and corrective actions taken; and

(d) a statement of the author's opinion on the adequacy of sample preparation, security and analytical procedures.

Item 16: Data Verification - Include

(a) a discussion of quality control measures and data verification procedures applied;

(b) a statement as to whether the qualified person has verified the data referred to or relied upon;

(c) a discussion of the nature of and any limitations on such verification; and

(d) the reasons for any failure to verify the data.

Item 17: Adjacent Properties - A technical report may include 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 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;

(d) the technical report clearly distinguishes between mineralization on the adjacent property and mineralization on the property being reported on; and

(e) if any historical estimates of resources or reserves are included in the technical report, they are disclosed in accordance with section 2.4 of the Instrument.

Item 18: Mineral Processing and Metallurgical Testing - If mineral processing or metallurgical testing analyses have been carried out, include the results of the testing, details of the testing and analytical procedures, and discuss whether the samples are representative.

Item 19: Mineral Resource and Mineral Reserve Estimates - A technical report disclosing mineral resources or mineral reserves must

(a) use only the applicable mineral resource and mineral reserve categories set out in sections 1.2 and 1.3 of the Instrument;

(b) report each category of mineral resources and mineral reserves separately and if both mineral resources and mineral reserves are disclosed, state the extent, if any, to which mineral reserves are included in total mineral resources;

(c) not add inferred mineral resources to the other categories of mineral resources;

(d) disclose the name, qualifications and relationship, if any, to the issuer of the qualified person who estimated mineral resources and mineral reserves;

(e) include appropriate details of quantity and grade or quality for each category of mineral resources and mineral reserves;

(f) include details of the key assumptions, parameters and methods used to estimate the mineral resources and mineral reserves;

(g) include a general discussion on the extent to which the estimate of mineral resources and mineral reserves may be materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues;

(h) identify the extent to which the estimates of mineral resources and mineral reserves may be materially affected by mining, metallurgical, infrastructure and other relevant factors;

(i) use only indicated mineral resources, measured mineral resources, probable mineral reserves and proven mineral reserves when referring to mineral resources or mineral reserves in an economic analysis that is used in a preliminary feasibility study or a feasibility study of a mineral project;

(j) if inferred mineral resources are used in an economic analysis, state the required disclosure set out in subsection 2.3(3) of the Instrument;

(k) when the results of an economic analysis of mineral resources are reported, state “mineral resources that are not mineral reserves do not have demonstrated economic viability”;

(l) state the grade or quality, quantity and category of the mineral resources and mineral reserves if the quantity of contained metal or mineral is reported; and

(m) when the grade for a polymetallic mineral resource or mineral reserve is reported as metal equivalent, report the individual grade of each metal, and consider and report the recoveries, refinery costs and all other relevant conversion factors in addition to metal prices and the date and sources of such prices.

INSTRUCTION: *A statement of quantity and grade or quality is an estimate and should be rounded to reflect the fact that it is an approximation.*

Item 20: Other Relevant Data and Information - Include any additional information or explanation necessary to make the technical report understandable and not misleading.

Item 21: Interpretation and Conclusions - Summarize the results and interpretations of all field surveys, analytical and testing data and other relevant information. Discuss the adequacy of data density and the data reliability as well as any areas of uncertainty. A technical report concerning exploration information must include the conclusions of the qualified person. The qualified person must discuss whether the completed project met its original objectives.

Item 22: Recommendations - Provide particulars of the recommended work programs and a breakdown of costs for each phase. If successive phases of work are recommended, each phase must culminate in a decision point. The recommendations must not apply to more than two phases of work. The recommendations must state whether advancing to a subsequent phase is contingent on positive results in the previous phase.

Item 23: References - Include a detailed list of all references cited in the technical report.

Item 24: Date and Signature Page - The technical report must have a signature page at the end, signed in accordance with section 5.2 of the Instrument. The effective date of the technical report and date of signing must be on the signature page.

Item 25: Additional Requirements for Technical Reports on Development Properties and Production Properties - Technical reports on development properties and production properties must include

(a) Mining Operations - information and assumptions concerning the mining method, metallurgical processes and production forecast;

(b) Recoverability - information concerning all test and operating results relating to the recoverability of the valuable component or commodity and amenability of the mineralization to the proposed processing methods;

(c) Markets - information concerning the markets for the issuer's production and the nature and material terms of any agency relationships;

(d) Contracts - a discussion of whether the terms of mining, concentrating, smelting, refining, transportation, handling, sales and hedging and forward sales contracts or arrangements, rates or charges are within industry norms;

(e) Environmental Considerations - a discussion of bond posting, remediation and reclamation;

(f) Taxes - a description of the nature and rates of taxes, royalties and other government levies or interests applicable to the mineral project or to production, and to revenues or income from the mineral project;

(g) Capital and Operating Cost Estimates - capital and operating cost estimates, with the major components being set out in tabular form;

(h) Economic Analysis - an economic analysis with cash flow forecasts on an annual basis using proven mineral reserves and probable mineral reserves only, and sensitivity analyses with variants in metal prices, grade, capital and operating costs;

(i) Payback - a discussion of the payback period of capital with imputed or actual interest; and

(j) Mine Life - a discussion of the expected mine life and exploration potential.

Item 26: Illustrations

(a) Technical reports must be illustrated by legible maps, plans and sections, which may be located in the appropriate part of the report. All technical reports must be accompanied by a location or index map and more detailed maps showing all important features described in the text. In addition, technical reports must include a compilation map outlining the general geology of the property and areas of historical exploration. The location of all known mineralization, anomalies, deposits, pit limits, plant sites, tailings storage areas, waste disposal areas and all other significant features must be shown relative to property boundaries. If information is used, from other sources, in preparing maps, drawings, or diagrams, disclose the source of the information.

(b) If adjacent or nearby properties have an important bearing on the potential of the property under consideration, their location and any mineralized structures common to two or more such properties must be shown on the maps.

(c) If the potential merit of a property is predicated on geophysical or geochemical results, maps showing the results of surveys and their interpretations must be included in the technical report.

(d) Maps must include a scale in bar form and an arrow indicating north.