

**Technical Standards for Reporting Assessment
Work**

Under the Provisions of the Mining Act

R.S.O. 1990

July 5, 2018

CONTENTS

INTRODUCTION

WORK TYPES AND ASSOCIATED WORK TYPES

1. GRASS ROOTS PROSPECTING
2. BEDROCK TRENCHING, BEDROCK PITTING, OVERBURDEN STRIPPING AND RELATED MANUAL WORK
3. TAKING SAMPLES FOR PURPOSES OF GEOSCIENCE WORK
4. REMOTE SENSING IMAGERY
5. GEOLOGICAL SURVEY WORK
6. GEOCHEMICAL SURVEY WORK
7. GROUND GEOPHYSICAL SURVEY WORK
8. AIRBORNE GEOPHYSICAL SURVEY WORK
9. MODELLING OR REPROCESSING OF EXISTING DATA IN ORDER TO IDENTIFY A NEW MINERAL EXPLORATION TARGET
10. LINE CUTTING ASSOCIATED WITH GEOSCIENCE WORK
11. EXPLORATORY DRILLING BY CORE OR NON-CORE METHODS, INCLUDING DIAMOND OR CORE DRILLING, AND OTHER DRILLING SUCH AS PERCUSSION, REVERSE CIRCULATION AND AUGER DRILLING
12. DRILL CORE OR DRILL SAMPLE SUBMISSIONS
13. PETROGRAPHIC WORK, INCLUDING MICROSCOPY, SCANNING ELECTRON MICROSCOPY AND ELECTRON MICROPROBE STUDIES
14. ENVIRONMENTAL BASELINE STUDIES
15. REHABILITATION REQUIRED OR PERMITTED TO BE DONE UNDER THE ACT, IF DONE IN ACCORDANCE WITH THE REQUIREMENTS IN THE ACT OR THE REGULATIONS

COSTS AND EXPENSES

1. RECEIPTS AND INVOICES
2. ABORIGINAL CONSULTATION COSTS

INTRODUCTION

This Technical Standards document sets out what must be included in the technical report applicable to the type of assessment work that is required as part of an assessment work report submission pursuant to the *Mining Act*, R.S.O. 1990, C. M.14 and the Assessment Work Regulation (O. Reg. 65/18).

The technical report for each type of work includes a detailed explanation of the geoscience work done, maps or plans, where required and details of the expenses claimed for the work, together with supporting receipts, invoices and other documents for those expenses.

WORK TYPES AND ASSOCIATED WORK TYPES

1. GRASS ROOTS PROSPECTING

A technical report in respect of grass roots prospecting shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s),
- (ii) give the names of the persons who performed the work;
- (iii) identify the mining lands on which the work was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (iv) identify the means of access to the land from the nearest population centre;
- (v) contain a key map showing the land where the grass roots prospecting was done in relation to identifiable topographic features and township boundaries or in relation to established grid lines, stations or markers;
- (vi) summarize the number of samples collected, and the number of samples analysed;
- (vii) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;
- (viii) provide a daily log describing in detail the nature and content of the work and the nature of rocks and mineralization observed during the performance of the work;
- (ix) provide a description and GPS location of all samples collected;
- (x) include all assays and analyses with their corresponding certificates;
- (xi) where grass roots prospecting instruments were used to collect data and/or where analyses were made in the field,
 - a. provide a log detailing the nature of the ground where the measurement/analysis was done (e.g., paved road, dirt road/trail, gravel road/trail, bedrock, overburden...etc.), as well as its condition (wet or dry);
 - b. identify any cultural features that may interfere with the measurements (e.g., power lines, rail tracks...etc.);
 - c. provide the results of the data collected and/or the results of the analyses;
 - d. provide specific information about the instruments used (manufacturer, type, model, detailed description of calibration, etc.);
 - e. describe the method used to make the measurements;
- (xii) provide a legend of all symbols or abbreviations used in the technical report; and

- (xiii) include a map at a scale between 1:100 and 1:5,000 showing,
 - a. the location and date of all traverses;
 - b. the location of all outcrops investigated and of observed rock types, mineralization, trenches, and any mineralized float boulders;
 - c. the location of all samples, clearly identifying the location of each sample by number, letter or grid coordinate designation;
 - d. the character of the overburden, including boulders, clay, gravel and sand;
 - e. the distribution of swamp, muskeg and forest cover areas along all lines traversed;
 - f. lakes, streams and other notable topographic features, and railways, roads, trails, power lines, pipelines and buildings;
 - g. Provincial Grid cell boundary lines, claim boundary lines, township boundary lines, base lines, established grid lines, and survey monuments, if any;
 - h. the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining land on which the grass roots prospecting was performed;
 - i. a descriptive list of all symbols used;
 - j. a graphic or bar scale and the north direction; and
 - k. where grass roots prospecting instruments were used to collect data and/or where analyses were made in the field,
 - i. show the location of all measurement stations;
 - ii. show the values of readings taken and the units measured such as gammas, degrees, milliamps, milligals, milliseconds, and ohmmeters, and dimensionless units such as per cent and ratios.

2. BEDROCK TRENCHING, BEDROCK PITTING, OVERBURDEN STRIPPING AND RELATED MANUAL WORK

A technical report in respect of bedrock trenching, bedrock pitting, overburden stripping and related manual work including outcrop mapping, outcrop washing and brushing and sampling associated with this work such as channel sampling and plugger sampling, shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) give the names of the persons who performed the work;
- (iii) identify the mining lands on which the work was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the

Technical Standards for Reporting Assessment Work – version 2 – July 5, 2018

- claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (iv) identify the means of access to the land from the nearest population centre;
 - (v) state the purpose for which the work was performed;
 - (vi) contain a key map showing the land worked in relation to identifiable topographic features and township boundaries or established grid lines, stations or markers;
 - (vii) provide a daily log describing in detail the nature and content of the work and the observations made during the performance of the work, the nature of rocks and mineralization exposed, as well as the type of equipment used, the dates and hours of use of the equipment, the dates and hours worked by the equipment operator and the hourly rates for equipment use and for the operator;
 - (viii) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;
 - (ix) describe the dimensions of the work areas and the total area and volume of material stripped, and/or pitted, and/or trenched;
 - (x) summarize the number of samples collected, and the number of samples analysed;
 - (xi) provide a description and GPS location of all samples collected;
 - (xii) include all assays and analyses with their corresponding certificates;
 - (xiii) provide a legend of all symbols or abbreviations used in the technical report;
 - (xiv) include a map at a scale between 1:100 and 1:5,000 showing,
 - a. the location of trenches, pits, and stripped areas, in relation to the land disposition boundaries;
 - b. lakes, streams and other notable topographic features, and railways, roads, trails, power lines, pipelines and buildings;
 - c. Provincial Grid cell boundary lines, claim boundary lines, township boundary lines, base lines, established grid lines, if any, and grid stations;
 - d. the cell number(s) on the Provincial Grid, the mining claim, leases, patent or parcel numbers of all mining lands on which the bedrock trenching, bedrock pitting, overburden stripping and related manual work was performed;
 - e. a graphic or bar scale and the north direction;
 - (xv) include a detailed map of each of the trenches, pits, and/or stripped areas at a scale between 1:10 and 1:500,
 - a. showing the dimensions of the trenches, pits, or stripped areas and of overburden storage areas, and clearly identifying areas previously worked,

- if applicable, and new surface stripping, bedrock trenching and known rock outcrops;
- b. showing the nature of the rocks and mineralization exposed during the performance of the work;
- c. clearly identifying the location of each sample by number, letter or grid coordinate designation;
- d. showing a graphic or bar scale and the north direction; and
- e. showing a descriptive list of all symbols used; and
- (xvi) include photographs of each of the trenched, pitted, and/or stripped areas, including a GPS receiver screen photograph with legible coordinates, and captioned with the trench, pit or stripped area identifier.

3. TAKING SAMPLES FOR PURPOSES OF GEOSCIENCE WORK

A technical report in respect of taking samples for purposes of geoscience work shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) give the names of the persons who performed the work;
- (iii) state the purpose for which the work was performed;
- (iv) identify the mining lands on which the sampling work was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (v) identify the means of access to the land from the nearest population centre;
- (vi) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;
- (vii) provide a daily log describing in detail the nature and content of the work and the observations made during the performance of the work, the nature of rocks and mineralization sampled and exposed, as well as the type of equipment used;
- (viii) summarize the number of samples collected, and the number of samples analysed;
- (ix) provide a description and GPS location of all samples collected;
- (x) include all assays and analyses with their corresponding signed certificates of analysis;
- (xi) where a drill core is resampled, provide the drill hole number, log, plan and section, and the intervals at which the samples were taken;
- (xii) where material collected from non-core drilling is resampled, provide the drill hole number and the intervals at which the samples were initially taken;

- (xiii) where heavy mineral processing of overburden samples is reported, provide the size and weight of the samples, the analytical procedures used and the accompanying results;
- (xiv) where metallurgical testing, beneficiation, or bulk sampling are reported, provide the size and weight of the sample, the analytical procedures used and the accompanying results;
- (xv) where industrial mineral testing or dimensional stone removal for testing are reported, provide the rock types tested, the size and weight of the sample, the analytical procedures used, the accompanying results and a discussion on the uses of the material tested, and the potential or known markets for the product;
- (xvi) provide a legend of all symbols or abbreviations used in the technical report;
- (xvii) include a map or a section,
 - a. clearly identifying the location of each sample by number and measured core length;
 - b. showing lakes, streams and other notable topographic features, and railways, roads, trails, power lines, pipelines and buildings;
 - c. showing Provincial Grid cell boundary lines, claim boundary lines, township boundary lines, base lines, established grid lines, if any, and grid stations;
 - d. showing the cell number(s) on the Provincial Grid, the mining claim, leases, patent or parcel numbers of all mining lands on which the samples were taken;
 - e. where samples are reported for core or non-core drilling, providing the drill hole collar location in relation to mining land boundaries;
 - f. showing a graphic or bar scale and the north direction;
 - g. showing a descriptive list of all symbols used; and
- (xviii) include photographs to locate each sample collected in the field, including a GPS receiver screen photograph with legible coordinates, and captioned with the sample identifier.

4. REMOTE SENSING IMAGERY

A technical report in respect of remote sensing imagery shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, and appendices;
- (iii) contain a summary section,

- a. summarizing the work program(s) that is being reported;
 - b. stating the dates during which the work was performed in the field, and giving the number of days spent in the field;
 - c. including a statement indicating the objective(s) of the work program(s);
 - d. identifying who performed the work;
 - e. identifying who the work was performed for;
 - f. including a summary of the results, conclusions and recommendations;
 - g. indicating the co-ordinate system used to locate the area of work such as geographic (latitudes and longitudes) or Universal Transverse Mercator (UTM). Include the Datum and Zone when reporting locations using Global Positioning System (GPS);
- (iv) identify the mining lands on which the imagery was collected, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
 - (v) identify the means of access to the land from the nearest population centre;
 - (vi) contain a key map showing the work area in relation to identifiable topographic features and township boundaries or established grid lines, stations or markers;
 - (vii) summarize the history of the property, with prior property ownership, historical exploration and past development or production;
 - (viii) provide a concise description of the regional and local geological settings of the property;
 - (ix) include the source of the remote sensing imagery, the method of data collection for the imagery;
 - (x) give an interpretation for the imagery collected; If a computer-generated model was created as part of the interpretation process for imagery collected, provide details of the modelling software, method and input parameters;
 - (xi) provide the details of any recommended work programs to further evaluate the property or prospect, as well as the anticipated costs to do this work;
 - (xii) provide a dated and signed certificate of qualifications from the author, or provide a signature page with a signed and dated stamp for authors registered with a professional organization (P.Eng, and P.Geo);
 - (xiii) provide a descriptive list of all abbreviations, or short forms used in the report;
 - (xiv) identify the sources of geological data contained in the report if obtained from sources other than the survey being reported; and
 - (xv) include a map,
 - a. showing a graphic or bar scale and the north direction;

- b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
- c. providing a descriptive list of all abbreviations, short forms or symbols;
- d. showing topographic features such as elevation contours, lakes, streams, ponds, wetlands, the local watershed if known, and infrastructures such as railways, roads, trails, power lines, pipelines and buildings;
- e. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
- f. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands on which the geological survey work was performed;
- g. showing the original remote sensing images or maps;
- h. showing the interpreted remote sensing images or maps.

5. GEOLOGICAL SURVEY WORK

A technical report in respect of a geological survey shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, and appendices;
- (iii) contain a summary section,
 - a. summarizing the work program(s) that is being reported;
 - b. stating the dates during which the work was performed in the field, and giving the number of days spent in the field;
 - c. including a statement indicating the objective(s) of the work program(s);
 - d. identifying who performed the work;
 - e. identifying who the work was performed for;
 - f. describing the physical activities undertaken and how the work site was rehabilitated (if applicable);
 - g. including a summary of the results, conclusions and recommendations;
 - h. indicating the co-ordinate system used to locate the area of work such as geographic (latitudes and longitudes) or Universal Transverse Mercator (UTM). Include the Datum and Zone when reporting locations using Global Positioning System (GPS);
- (iv) identify the mining lands on which the survey was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the

- claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (v) identify the means of access to the land from the nearest population centre;
 - (vi) contain a key map showing the land surveyed in relation to identifiable topographic features and township boundaries or established grid lines, stations or markers;
 - (vii) summarize the history of the property, with prior property ownership, historical exploration and past development or production;
 - (viii) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;
 - (ix) provide a concise description of the regional and local geological settings of the property;
 - (x) contain a table of the rock types, lithologies and formations with their description;
 - (xi) give descriptions of significant geological structures;
 - (xii) describe the mineral deposit type or commodity being explored and the geological model(s) and/or concept(s) being applied; also providing the reason(s) for the exploration work type performed;
 - (xiii) explain the procedures and parameters relating to the work such as grid control, line-kilometres for surveys and number of days in the field for all types of work performed;
 - (xiv) indicate the type(s) of equipment used;
 - (xv) describe the character, attitudes and dimensions of mineralized and/or altered zones encountered on the property, the surrounding rock types and relevant geological structures, detailing dimensions and continuity, together with a description of the type, character, attitudes and distribution of the mineralization;
 - (xvi) state the number of samples collected, and the number of samples analysed;
 - (xvii) describe samples collected and provide their GPS location (as well as the Datum and UTM zone);
 - (xviii) include all assays and analyses with Certificates of Analysis;
 - (xix) give an interpretation of all the field exploration work performed, analytical and testing data and other relevant information, discussing the value of the work with respect to leading to the success or failure of the program, and discuss whether the program met its original objectives; If a computer-generated model was created as part of the interpretation process for the field work performed, provide details of the modelling software, method and input parameters;
 - (xx) provide the details of any recommended work programs to further evaluate the property or prospect, as well as the anticipated costs to do this work;

- (xxi) provide a dated and signed certificate of qualifications from the author, or provide a signature page with a signed and dated stamp for authors registered with a professional organization (P.Eng, and P.Geo);
- (xxii) provide a descriptive list of all abbreviations, or short forms used in the report;
- (xxiii) identify the sources of geological data contained in the report if obtained from sources other than the survey being reported; and
- (xxiv) include a geological map,
 - a. showing a graphic or bar scale and the north direction;
 - b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
 - c. providing a descriptive list of all abbreviations, short forms or symbols;
 - d. showing topographic features such as elevation contours, lakes, streams, ponds, wetlands, the local watershed if known, and infrastructure such as railways, roads, trails, power lines, pipelines and buildings;
 - e. showing traverse lines that have been run. If applicable, include established grid lines and baselines. If the grid is by chain and compass provide a description including declination and slope corrections if used. Where GPS is used, provide GPS parameters used in data collection and base station location if used;
 - f. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
 - g. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands on which the geological survey work was performed;
 - h. contain a table of rock types, lithologies and formations with a descriptive list of the symbols used;
 - i. show outcrops designated by a letter or number corresponding to the rock type, lithologies and formations;
 - j. show the character of the overburden including boulder, clay, gravel or sand;
 - k. show the distribution of swamp, muskeg and forest cover areas along all lines traversed;
 - l. show all observed and interpreted folds, structural measurements, schistosity, actual and indicated faults, attitudes of flows and stratified rocks, including strikes and dips, and the direction in which they face, locations and attitudes of actual and interpreted contacts and other structural features;
 - m. show zones of shearing, alteration or mineralization and veins;
 - n. show the location of stripped areas, trenches, test pits, shafts and adits;

- o. showing the location of samples clearly identifying the location of each sample by number, letter or grid coordinate designation;
- p. show the location, azimuth, dip and length of drill holes.

6. GEOCHEMICAL SURVEY WORK

A technical report in respect of a geochemical survey shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, appendices (logs, assay certificates, etc.);
- (iii) contain a summary section,
 - a. summarizing the work program(s) that is being reported;
 - b. stating the dates during which the work was performed in the field, and giving the number of days spent in the field;
 - c. including a statement indicating the objective(s) of the work program(s);
 - d. identifying who performed the work and, if a contractor(s) was used, identify the contractor(s);
 - e. identifying who the work was performed for;
 - f. describing the physical activities undertaken and how the work site was rehabilitated (if applicable);
 - g. including a summary of the results, conclusions and recommendations;
 - h. indicating the co-ordinate system used to locate the area of work such as geographic (latitudes and longitudes) or Universal Transverse Mercator (UTM). Include the Datum and Zone when reporting locations using Global Positioning System (GPS);
- (iv) identify the mining lands on which the survey was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (v) identify the means of access to the land from the nearest population centre;
- (vi) contain a key map showing the land surveyed in relation to identifiable topographic features and township boundaries or established grid lines, stations or markers;
- (vii) summarize the history of the property, with prior property ownership, historical exploration and past development or production;
- (viii) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;

Technical Standards for Reporting Assessment Work – version 2 – July 5, 2018

- (ix) explain the procedures and parameters relating to the work such as grid control, line-kilometres for surveys and number of days in the field for all types of work performed;
- (x) disclose and identify any geochemical data contained in the report that has been obtained from any source other than the survey;
- (xi) provide the geological, and topographic context of the material being sampled;
- (xii) indicate the total number of sample stations, of kilometres of line traversed, and the number of samples analysed;
- (xiii) describe the type (e.g., vegetation, soil, sediment, rock,...etc.), GPS location, and depth of the samples collected;
 - a. in the case of soil samples, indicate the depth or range of depth below the surface and the particular soil horizon sampled;
 - b. in the case of samples of living vegetation, plant, humus or peat, describe the samples as specifically and completely as possible, giving the plant name, species, and part of the plant sampled;
- (xiv) describe the sampling methods and the tools used;
- (xv) give the weight of the sample used and describe the sample preparation technique (e.g., solid surface, unprocessed, sieved, pulverized), including the method or process of sample splitting and reduction and extraction method, analytical method and elements determined;
- (xvi) provide the analytical results for all samples, and state whether the analysis was made in the field, a field laboratory or a commercial laboratory and indicate the name of the laboratory;
 - a. where analysis was made in the field or in a field laboratory,
 - i. give the name of the analyst;
 - ii. give the name, type and model of the instrument used;
 - iii. provide a description of measurement, calibration and quality control methods used;
 - b. the field sample identification numbers and the reconciled analytical identification number, if different, must be identifiable from the tables and data provided;
- (xvii) include all assays and analyses with Certificates of Analysis;
- (xviii) give an analysis of the geochemical data by mathematical or other means in order to establish background, threshold and anomalous values;
- (xix) give an estimate of the data variability, if calculated;
- (xx) describe the possible causes of background and threshold and anomalous values, relating the anomalous values to known or speculated causes;

- (xxi) give an interpretation of all the field exploration work performed, and analytical data, discussing the value of the work with respect to leading to the success or failure of the program, and discussing whether the program met its original objectives;
- (xxii) provide the details of any recommended work programs to further evaluate the property or prospect, as well the anticipated costs to do this work;
- (xxiii) contain a detailed list of all references cited in the technical report;
- (xxiv) provide a dated and signed certificate of qualifications from the author, or provide a signature page with a signed and dated Stamp for authors registered with a professional organization (P.Eng, and P.Geo); and
- (xxv) include a map,
 - a. showing a graphic or bar scale and the north direction;
 - b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
 - c. providing a descriptive list of all abbreviations, short forms or symbols;
 - d. showing topographic features such as elevation contours, lakes, streams, ponds, wetlands, the local watershed if known, and infrastructures such as railways, roads, trails, power lines, pipelines and buildings;
 - e. showing traverse lines that have been run. If applicable, include established grid lines and baselines. If the grid is by chain and compass provide a description including declination and slope corrections if used. Where GPS is used, provide GPS parameters used in data collection and base station location if used;
 - f. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
 - g. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands on which the geochemical survey work was performed;
 - h. showing all station points and sample numbers and any other maps of assay results, where produced;
 - i. providing a legend or explanation to identify the units plotted;
 - j. showing profiles or contours as determined from the analytical results of the survey and give the vertical scale where profiles are used;
 - k. showing the printed name of the author of the related geotechnical report.

7. GROUND GEOPHYSICAL SURVEY WORK

A technical report in respect of a ground geophysical survey, including a borehole geophysical survey, shall:

Technical Standards for Reporting Assessment Work – version 2 – July 5, 2018

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, appendices (logs, assay certificates, etc.);
- (iii) contain a summary section,
 - a. summarizing the work program(s) that is being reported;
 - b. stating the dates during which the work was performed in the field, and giving the number of days spent in the field;
 - c. including a statement indicating the objective(s) of the work program(s);
 - d. identifying who performed the work;
 - e. identifying who the work was performed for;
 - f. describing the physical activities undertaken and how the work site was rehabilitated (if applicable);
 - g. including a summary of the results, conclusions and recommendations;
 - h. indicating the co-ordinate system used to locate the area of work such as geographic (latitudes and longitudes) or Universal Transverse Mercator (UTM). Include the Datum and Zone when reporting locations using Global Positioning System (GPS);
- (iv) identify the mining lands on which the survey was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (v) identify the means of access to the land from the nearest population centre;
- (vi) contain a key map showing the land surveyed in relation to identifiable topographic features and township boundaries or established grid lines, stations or markers;
- (vii) summarize the history of the property, with prior property ownership, historical exploration and past development or production;
- (viii) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;
- (ix) provide a concise description of the regional and local geological settings of the property;
- (x) describe the mineral deposit type or commodity being explored and the geological model(s) and/or concept(s) being applied; also provide the reason(s) for the exploration work type performed;
- (xi) identify the sources of any geophysical or geological data contained in the report or shown on the accompanying illustrations which have been obtained from any source other than the survey being reported;

Technical Standards for Reporting Assessment Work – version 2 – July 5, 2018

- (xii) specify the total distance of line traversed and number of days in the field for each type of survey performed;
- (xiii) identify the name, type and model of the instrument used to perform the survey, specifying the scale constant or sensitivity;
- (xiv) describe the method of survey and the use of the instrument, operational technique and parameters measured;
- (xv) describe the calibration and quality control methods used;
- (xvi) for EM surveys describe the frequency(ies) used, transmitter current, transmitter waveform, repetition rate and transmitter geometry (including diameter, number of turns and area);
- (xvii) in cases of subsurface geophysical surveys (borehole), specify the method of ground control related to data recovery;
- (xviii) in cases of underwater geophysical surveys, specify the method of navigation or ground control related to data recovery;
- (xix) in cases of ground geophysical surveys, provide a log detailing the nature of the ground where the measurement/analysis was done (e.g., paved road, dirt road/trail, gravel road/trail, bedrock, overburden...etc.), as well as its condition (wet or dry), and identify any cultural features that may interfere with the measurements (e.g., power lines, rail tracks...etc.);
- (xx) for new ground exploration methods that are not described in readily available literature, include a statement of the underlying theory, a full description of instrumentation, measurement and data reduction and results from test areas;
- (xxi) for gamma-ray spectrometry surveys, describe the coefficients and ratios used to process the data: the background radiation corrections, the stripping ratios, attenuation coefficients, if applicable, and the sensitivity coefficients;
- (xxii) describe the corrections and processing steps applied to the survey data;
- (xxiii) give an analysis of the geophysical data to better define the geometrical and physical parameters of any anomalous zones;
- (xxiv) describe the possible causes of background and anomalous values relating the latter to known or speculated causes;
- (xxv) give an interpretation of all the field exploration work performed, analytical and testing data and other relevant information, discuss the value of the work with respect to leading to the success or failure of the program, and discuss whether the program met its original objectives. If a computer-generated model was created as part of the interpretation process for the field work performed, provide details of the modelling software, method and input parameters;
- (xxvi) provide the details of any recommended work programs to further evaluate the property or prospect, as well the anticipated costs to do this work;
- (xxvii) contain a detailed list of all references cited in the technical report;

- (xxviii) provide a dated and signed certificate of qualifications from the author, or provide a signature page with a signed and dated Stamp for authors registered with a professional organization (P.Eng, and P.Geo); and
- (xxix) include a map,
- a. showing a graphic or bar scale and the north direction;
 - b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
 - c. providing a descriptive list of all abbreviations, short forms or symbols;
 - d. showing topographic features such as elevation contours, lakes, streams, ponds, wetlands, the local watershed if known, and infrastructures such as railways, roads, trails, power lines, pipelines and buildings;
 - e. showing traverse lines that have been run. If applicable, include established grid lines and baselines. If the grid is by chain and compass provide a description including declination and slope corrections if used. Where GPS is used, provide GPS parameters used in data collection;
 - f. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
 - g. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands on which the ground geophysical work was performed;
 - h. showing the coverage of any applicable exploration plans and/or exploration permits;
 - i. showing all station points, the values of readings taken and the units measured such as gammas, degrees, milliamps, milligals, milliseconds and ohmmeters, and dimensionless units such as per cent and ratios;
 - j. giving the GPS location of the main base control point or base station, if applicable;
 - k. in cases of gamma ray spectrometry surveys,
 - i. providing the final results for total counts, equivalent uranium concentration, equivalent thorium concentration and potassium concentration, with their respective units, as well as ratios between radioelements, if available;
 - ii. providing an outcrop map;
 - l. in cases of borehole surveys,
 - i. providing a plan showing the projection to surface of each drill hole surveyed, with the loop configuration, or current source or seismic source;

- ii. providing a drill hole section for each drill hole surveyed, or a detailed geological map of the area, both showing the lithology, and mineralization;
- m. showing profiles, contours or sections of the fully processed data and give the vertical scale where profiles are used;
- n. containing a legend or explanation indicating how the measured units are plotted, anomalous zones are indicated and spurious suspect readings are identified;
- o. showing navigational lines and sub-surface information, if available, for underwater geophysics.

8. AIRBORNE GEOPHYSICAL SURVEY WORK

A technical report in respect of an airborne geophysical survey shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, appendices (logs, assay certificates, etc.);
- (iii) contain a summary section,
 - a. summarizing the work program(s) that is being reported;
 - b. stating the dates during which the work was performed in the field, and giving the number of days spent in the field;
 - c. including a statement indicating the objective(s) of the work program(s);
 - d. identifying who performed the work;
 - e. identifying who the work was performed for;
 - f. including a summary of the results, conclusions and recommendations;
 - g. indicating the co-ordinate system used to locate the area of work such as geographic (latitudes and longitudes) or Universal Transverse Mercator (UTM). Include the Datum and Zone when reporting locations using Global Positioning System (GPS);
- (iv) identify the mining lands on which the survey was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (v) identify the means of access to the land from the nearest population centre;
- (vi) contain a key map showing the land surveyed in relation to identifiable topographic features and township boundaries or established grid lines, stations or markers;

- (vii) summarize the history of the property, with prior property ownership, historical exploration and past development or production;
- (viii) provide a concise description of the regional and local geological settings of the property;
- (ix) describe the mineral deposit type or commodity being explored and the geological model(s) and/or concept(s) being applied; also provide the reason(s) for the exploration work type performed;
- (x) identify the manufacturer, type and model of all instruments and sensors used in the performance of the survey, specifying the scale constant or sensitivity, the accuracy and the parameters measured for each instrument, including sampling rate;
- (xi) describe the position of all instruments and sensors with respect to the aircraft and provide a figure showing the location of EM transmitter and receiver coils, magnetometers, and gravimeter;
- (xii) for EM surveys, describe the frequency(ies) used, transmitter current, transmitter waveform, repetition rate and transmitter geometry (including diameter, number of turns and area);
- (xiii) describe the calibration and quality control methods used;
- (xiv) specify the method of ground control related to flight path recovery, ground speed and the terrain clearance of the aircraft used in the performance of the survey;
- (xv) specify the flight-line spacing, the total distance flown over the entire survey and the distance flown over the mining lands for which the assessment work is to be credited;
- (xvi) for new airborne exploration methods that are not described in readily available literature, include a statement of the underlying theory, a full description of instrumentation, measurement and data reduction and results from test areas;
- (xvii) describe the corrections and processing steps applied to the survey data;
- (xviii) for gamma-ray spectrometry surveys, describe the coefficients and ratios used to process the data: the aircraft and cosmic background radiation corrections, the radon background corrections, the stripping ratios, the height attenuation coefficients, and the sensitivity coefficients;
- (xix) for EM surveys, provide vertical sections along flight lines of calculated electrical parameters (e.g. apparent resistivity or apparent conductivity), if applicable;
- (xx) give an interpretation of all the field exploration work performed, discussing the value of the work with respect to leading to the success or failure of the program, and discussing whether the program met its original objectives; If a computer-generated model was created as part of the interpretation process

- for the field work performed, provide details of the modelling software, method and input parameters;
- (xxi) provide the details of any recommended work programs to further evaluate the property or prospect, as well the anticipated costs to do this work;
 - (xxii) contain a detailed list of all references cited in the technical report;
 - (xxiii) provide a dated and signed certificate of qualifications from the author, or provide a signature page with a signed and dated Stamp for authors registered with a professional organization (P.Eng, and P.Geo); and
 - (xxiv) include a map,
 - a. showing a graphic or bar scale and the north direction;
 - b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
 - c. providing a descriptive list of all abbreviations, short forms or symbols;
 - d. showing topographic features such as elevation contours, lakes, streams, ponds, wetlands, the local watershed if known, and infrastructures such as railways, roads, trails, power lines, pipelines and buildings;
 - e. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
 - f. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands above which the airborne geophysical work was performed;
 - g. showing the flight line along which the data were acquired, identifying the line number and heading direction;
 - h. showing profiles or contours determined from the readings obtained by the survey, stating the units measured;
 - i. for EM surveys, showing the locations of picked anomalies symbolized to show relative conductivity;
 - j. containing a legend indicating profile scale (where used), contour intervals (where used), colour scale bar (where colour contours are used).

9. MODELLING OR REPROCESSING OF EXISTING DATA IN ORDER TO IDENTIFY A NEW MINERAL EXPLORATION TARGET

A technical report in respect of modelling or reprocessing of existing data in order to identify a new mineral exploration target shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, appendices (logs, assay certificates, etc.);

- (iii) contain a summary section,
 - a. summarizing the work that is being reported;
 - b. stating the dates during which the work was performed, and giving the number of days spent performing the work;
 - c. including a statement indicating the objective(s) of the work;
 - d. identifying who performed the work;
 - e. identifying who the work was performed for;
 - f. including a summary of the results, conclusions and recommendations;
 - g. indicating the co-ordinate system used to locate the area of work such as geographic (latitudes and longitudes) or Universal Transverse Mercator (UTM). Include the Datum and Zone when reporting locations using Global Positioning System (GPS);
- (iv) identify the mining lands on which the work was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (v) identify the means of access to the land from the nearest population centre;
- (vi) contain a key map showing the land surveyed in relation to identifiable topographic features and township boundaries or established grid lines, stations or markers;
- (vii) summarize the history of the property, with prior property ownership, historical exploration and past development or production;
- (viii) provide a concise description of the regional and local geological settings of the property;
- (ix) explain how the work leads to a new exploration model or concept supporting new exploration activity(ies);
- (x) give an interpretation of all the work performed, discussing the value of the work with respect to leading to the success or failure of the program, and discussing whether the program met its original objectives;
- (xi) when existing data is re-processed , provide details of the processing software, methods and input parameters;
- (xii) when a computer-generated model was created as part of the interpretation, provide details of the modelling software, method and input parameters;
- (xiii) identify the new mineral exploration targets;
- (xiv) provide the details of any recommended work programs to further evaluate the property or prospect, as well the anticipated costs to do this work;
- (xv) contain a detailed list of all references cited in the technical report;

- (xvi) provide a dated and signed certificate of qualifications from the author, or provide a signature page with a signed and dated Stamp for authors registered with a professional organization (P.Eng, and P.Geo); and
- (xvii) include maps,
 - a. showing a graphic or bar scale and the north direction;
 - b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
 - c. providing a descriptive list of all abbreviations, short forms or symbols;
 - d. showing topographic features such as elevation contours, lakes, streams, ponds, wetlands, the local watershed if known, and infrastructures such as railways, roads, trails, power lines, pipelines and buildings;
 - e. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
 - f. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands above which the airborne geophysical work was performed;
 - g. showing the results of data modelling or reprocessing;
 - h. showing the locations of new mineral exploration targets;
 - i. showing profiles or contours determined from the readings obtained by the modelling or reprocessing, stating the units measured;
 - j. containing a legend indicating profile scale (where used), contour intervals (where used), colour scale bar (where colour contours are used).

10. LINE CUTTING ASSOCIATED WITH GEOSCIENCE WORK

A technical report in respect of line cutting shall:

- (i) contain a description of the established baseline and grid lines that were cut and of subsequent work type performed on the control grid; and
- (ii) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;

11. EXPLORATORY DRILLING BY CORE OR NON-CORE METHODS, INCLUDING DIAMOND OR CORE DRILLING, AND OTHER DRILLING SUCH AS PERCUSSION, REVERSE CIRCULATION AND AUGER DRILLING

A technical report in respect of exploratory drilling by core or non-core method, including diamond or core drilling, and other drilling such as percussion, reverse circulation and auger drilling, shall:

Technical Standards for Reporting Assessment Work – version 2 – July 5, 2018

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, appendices (logs, assay certificates, etc.);
- (iii) contain a summary section,
 - a. summarizing the work program(s) that is being reported;
 - b. stating the dates during which the work was performed in the field, and giving the number of days spent in the field;
 - c. including a statement indicating the objective(s) of the work program(s);
 - d. identifying who performed the work;
 - e. identifying who the work was performed for;
 - f. describing the physical activities undertaken and how the work site was rehabilitated (if applicable);
 - g. including a summary of the results, conclusions and recommendations;
 - h. indicating the co-ordinate system used to locate the area of work such as geographic (latitudes and longitudes) or Universal Transverse Mercator (UTM). Include the Datum and Zone when reporting locations using Global Positioning System (GPS);
- (iv) identify the mining lands on which the drilling work was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (v) identify the means of access to the land from the nearest population centre;
- (vi) contain a key map showing the land drilled in relation to identifiable topographic features and township boundaries or established grid lines, stations or markers;
- (vii) summarize the history of the property, with prior property ownership, historical exploration and past development or production;
- (viii) provide a concise description of the regional and local geological settings of the property;
- (ix) describe the mineral deposit type or commodity being explored and the geological model(s) and/or concept(s) being applied; also provide the reason(s) for the exploration work type performed;
- (x) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;
- (xi) indicate the number of holes drilled and the total length of drilling;
- (xii) indicate the start and end dates of the drilling program;
- (xiii) provide a summary table, specifying for each drill hole,

- a. the drill hole number or wedge number;
 - b. the drill collar location using UTM coordinates (with Datum and Zone);
 - c. the drill hole azimuth and dip;
 - d. the drill hole or wedge length;
 - e. the number of samples collected;
 - f. the number of samples assayed;
- (xiv) give an interpretation of all the field exploration work performed, analytical and testing data and other relevant information, discussing the value of the work with respect to leading to the success or failure of the program, and discussing whether the program met its original objectives; If a computer-generated model was created as part of the interpretation process for the field work performed, provide details of the modelling software, method and input parameters;
- (xv) provide the details of any recommended work programs to further evaluate the property or prospect, as well the anticipated costs to do this work;
- (xvi) contain a detailed list of all references cited in the technical report;
- (xvii) provide a dated and signed certificate of qualifications from the author, or provide a signature page with a signed and dated Stamp for authors registered with a professional organization (P.Eng, and P.Geo);
- (xviii) include drill hole logs,
- a. identifying the hole by number;
 - b. giving the cell number(s) on the Provincial Grid, the mining claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers on which the hole is drilled;
 - c. indicating the location of the drill hole collar with UTM coordinates (with Datum and Zone), and, if available, in relation to grid line co-ordinates;
 - d. indicating the dip/inclination and azimuth of the hole;
 - e. indicating the size of the core, or the diameter of the drill hole if bored other than by core drilling;
 - f. stating the start and completion dates of the drilling;
 - g. stating the name of the drill contractor;
 - h. stating the storage location of the core or drill sample material;
 - i. indicating the thickness of overburden in the core drilling holes and other boreholes where this data can be ascertained;
 - j. indicating if the casing was left in place and method of capping;
 - k. indicating if the hole was abandoned due to rock or technical reasons;

- l. indicating if the hole encountered artesian conditions and whether sealed or valved;
 - m. describing all geological units encountered in terms of their thickness, composition, colour, texture, structure, grain size, degree of sorting, mineralization, alteration, degree of metamorphism, and bedding;
 - n. indicating the total length of penetration of the drill hole in bedrock and unconsolidated material;
 - o. indicating the location and type of all samples taken for assay or physical tests, using the core length intervals, and providing their identification numbers;
 - p. stating the date of completion of the log;
 - q. containing the printed name of the author of the log;
 - r. providing a legend of all symbols or abbreviations used in the logs;
 - s. including assay values for sections assayed with certificates of analysis;
 - t. in cases of overburden drilling designated specifically to sample unconsolidated materials, describing the stratigraphy of the materials encountered as to type of material, thickness, colour, texture, structure, grain size, degree of sorting and mineralization, and describing the type of bedrock penetrated, if reached;
- (xix) include a drill plan,
- a. showing a graphic or bar scale and the north direction;
 - b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
 - c. providing a descriptive list of all abbreviations, short forms or symbols;
 - d. showing topographic features such as elevation contours, lakes, streams, ponds, wetlands, the local watershed if known, and infrastructures such as railways, roads, trails, power lines, pipelines and buildings;
 - e. showing the Provincial Grid cell boundary lines, the mining land boundary lines, township boundary lines;
 - f. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands on which drilling work was performed;
 - g. showing the coverage of any applicable exploration plans and/or permits;
 - h. showing the location of drill hole collars;
 - i. showing the projection of the drill hole(s) to surface;
 - j. indicating the drill hole numbers;
 - k. indicating the azimuth, dip, and length of all drill holes; and

- (xx) include a drill hole section,
 - a. showing a graphic or bar scale;
 - b. showing coordinate lines corresponding with those shown on the drill plan;
 - c. providing a descriptive list of all abbreviations, short forms or symbols;
 - d. showing mining land boundary lines, township boundary lines;
 - e. showing the mining claim, lease, patent or parcel numbers of all mining lands on which the drilling work was performed;
 - f. showing the coverage of any applicable exploration plans and/or permits;
 - g. showing the overburden, rock types or type of material intersected;
 - h. showing the location of the unconsolidated materials, mineralization, and structures designated by code or symbol;
 - i. containing a legend for codes or symbols corresponding to unconsolidated materials, mineralization and structure;
 - j. indicating the number, dip/inclination, azimuth, and length of the drill hole;
 - k. including assay values and/or assay averages.

12. DRILL CORE OR DRILL SAMPLE SUBMISSIONS

A technical report in respect of drill core or drill sample submissions to the Resident Geologist Program shall:

- (i) provide a summary table, specifying for each drill hole or drill wedge,
 - a. the drill hole number or wedge number;
 - b. the drill collar location using UTM coordinates (with Datum and Zone);
 - c. the drill hole or wedge azimuth and dip;
 - d. the drill hole or wedge length;
- (ii) include drill hole logs,
 - a. identifying the hole by number;
 - b. giving the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands through which the hole is drilled;
 - c. indicating the location of the drill hole collar with UTM coordinates (with Datum and Zone), and, if available, in relation to grid line co-ordinates;
 - d. indicating the dip/inclination and azimuth of the hole;
 - e. indicating the size of the core, or the diameter of the drill hole if bored other than by core drilling;
 - f. stating the start and completion dates of the drilling;

- g. stating the name of the drill contractor;
 - h. indicating the thickness of overburden in the core drilling holes and other boreholes where this data can be ascertained;
 - i. indicating if the casing was left in place and method of capping;
 - j. indicating if the hole was abandoned due to rock or technical reasons;
 - k. indicating if the hole encountered artesian conditions and whether sealed or valved;
 - l. describing all geological units encountered in terms of their thickness, composition, colour, texture, structure, grain size, degree of sorting, mineralization, alteration, degree of metamorphism, and bedding;
 - m. indicating the total length of penetration of the drill hole in bedrock and unconsolidated material;
 - n. indicating the location and type of the samples submitted;
 - o. stating the date of completion of the log;
 - p. containing the printed name of the author of the log;
 - q. providing a legend of all symbols or abbreviations used in the logs;
 - r. in cases of overburden drilling designated specifically to sample unconsolidated materials, describing the stratigraphy of the materials encountered as to type of material, thickness, colour, texture, structure, grain size, degree of sorting and mineralization, and describing the type of bedrock penetrated, if reached; and
- (iii) include a receipt from the Resident Geologist Program.

13. PETROGRAPHIC WORK, INCLUDING MICROSCOPY, SCANNING ELECTRON MICROSCOPY AND ELECTRON MICROPROBE STUDIES

A technical report in respect of petrographic work, including microscopy, Scanning Electron Microscopy and Electron Microprobe studies, shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, appendices (logs, assay certificates, etc.);
- (iii) state the dates during which the work was performed;
- (iv) include a statement indicating the objective(s) of the petrographic work;
- (v) identify who performed the work;
- (vi) identify who the work was performed for;

- (vii) identify the mining lands on which the work was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (viii) identify the means of access to the land from the nearest population centre;
- (ix) provide the number of any applicable exploration permit issued or exploration plan filed pursuant to O. Reg 308/12;
- (x) provide a concise description of the regional and local geological settings of the property;
- (xi) describe the type of mineral deposit or the commodity being explored and the geological model(s) and/or concept(s) being applied;
- (xii) provide the GPS location of all samples analysed;
- (xiii) include sample preparation procedures;
- (xiv) in cases of petrographic studies, provide descriptions and coloured photographs of all samples, captioned with the sample identifier;
- (xv) in cases of microscopic studies, provide hand sample descriptions, microscopic descriptions and photographs of all samples, captioned with the sample identifier;
- (xvi) in cases of Scanning Electron Microscopic (SEM) or Electron Microprobe (EMP) imagery,
 - a. provide descriptions and images of all samples, captioned with the sample identifier;
 - b. indicate where the data was obtained, the type of equipment used and the operating conditions used to obtain the images, the units of measurement, lower detection limits and the laboratory quality control data;
 - c. provide the sample identification numbers, their analyses results and certificates of analysis;
- (xvii) provide an explanation of any abbreviations or short forms used in the report or on the captioned photographs;
- (xviii) summarize the results and interpretations of all observations and other relevant information, discussing the value of the work with respect to leading to the success or failure of the program, and discussing whether the program met its original objectives;
- (xix) include a map,
 - a. showing the location of all samples;
 - b. showing a graphic or bar scale, and the north direction;
 - c. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);

- d. showing topographic features and infrastructures;
 - e. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
 - f. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands in respect of which the petrographic work was performed;
 - g. providing a descriptive list of all abbreviations, short forms or symbols used, and
- (xx) include photographs and/or imagery,
- a. showing the sample identifier;
 - b. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers from which the sample was collected.

14. ENVIRONMENTAL BASELINE STUDIES

A technical report in respect of environmental baseline studies shall:

- (i) state the purpose, nature and scope of the Baseline Study;
- (ii) identify the mining lands on which the study was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (iii) identify the means of access to the land from the nearest population centre;
- (iv) describe the land use at the exploration project site and any information on previous activities on the site;
- (v) provide a summary of the flora, fauna and ecological communities in the area likely to be affected by the exploration project;
- (vi) describe the method of collection of the data, the nature of the data collected and the results;
- (vii) describe the Environmental Quality Standards used to assess the environmental impact on the study area;
- (viii) provide the qualifications of the person(s) and/or contractor(s) reporting the study;
- (ix) include a map,
 - a. showing a graphic or bar scale, and the north direction;
 - b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
 - c. showing topographic features and infrastructures;

- d. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
 - e. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands on which the Environmental baseline study was performed;
 - f. providing a descriptive list of all abbreviations, short forms or symbols used;
 - g. outlining of the study area;
 - h. showing the location of monitoring and/or sampling sites;
 - i. showing the location of potential impact sites; and
- (x) include photographs of the Baseline Study sites, captioned with site identifiers.

15. REHABILITATION REQUIRED OR PERMITTED TO BE DONE UNDER THE ACT, IF DONE IN ACCORDANCE WITH THE REQUIREMENTS IN THE ACT OR THE REGULATIONS

A technical report in respect of rehabilitation required or permitted to be done under the act, if done in accordance with the requirements in the act or the regulations is eligible for assessment work credit if the submitter provides, shall:

- (i) contain a title page, with the name of the technical report, the property name, the date of completion of the report, and clearly identifying the author(s);
- (ii) contain a table of contents and a list of illustrations, including figures, tables, maps, appendices (logs, assay certificates, etc.);
- (iii) contain a summary section,
 - a. summarizing the work program(s) that is being reported;
 - b. stating the dates during which the work was performed in the field, and giving the number of days spent in the field;
 - c. including a statement indicating the objective(s) of the work program(s);
 - d. identifying who performed the work and, if a contractor(s) was used, identify the contractor(s);
 - e. identifying who the work was performed for;
 - f. describing how the work site was rehabilitated;
 - g. including a summary of the results, conclusions and recommendations;
 - h. indicating the co-ordinate system used to locate the area of work such as geographic (latitudes and longitudes) or Universal Transverse Mercator (UTM). Include the Datum and Zone when reporting locations using Global Positioning System (GPS);

- (iv) identify the mining lands on which the work was performed, using the Township name, the cell number(s) on the Provincial Grid, as well as the claim numbers, lease numbers, Licences of Occupation numbers or Patent numbers, and identify the ownership of the land;
- (v) identify the means of access to the land from the nearest population centre;
- (vi) contain a key map showing the land rehabilitated in relation to identifiable topographic features and township boundaries;
- (vii) summarize the history of the property, with prior property ownership, historical exploration and past development or production and identify any significant areas where hazards or risks have been recognized;
- (viii) where a proponent undertakes progressive rehabilitation of a site without being subject to a closure plan and met the prescribed standard, provide a copy of the applicable progressive rehabilitation report;
- (ix) contain a detailed list of all references cited in the technical report;
- (x) provide a dated and signed certificate of qualifications at the end of the technical report; and
- (xi) include a map,
 - a. showing a graphic or bar scale and the north direction;
 - b. showing grid co-ordinate lines using latitude and longitude or UTM Eastings and Northings (include the Datum and Zone);
 - c. providing a descriptive list of all abbreviations, short forms or symbols;
 - d. showing topographic features such as elevation contours where appropriate to scale and clarity of drawing, lakes, streams, ponds, wetlands, the local watershed if known, and infrastructures such as railways, roads, trails, power lines, pipelines and buildings;
 - e. showing Provincial Grid cell boundary lines, mining land boundary lines, township boundary lines;
 - f. showing the cell number(s) on the Provincial Grid, the mining claim, lease, patent or parcel numbers of all mining lands on which the rehabilitation work was performed;

COSTS AND EXPENSES

1. RECEIPTS AND INVOICES

Copies of receipts and invoices documenting the costs and expenses incurred during the performance of assessment work are to be included in report of work submission for the assessment work type to which they relate.

Additionally, a summary report or table that details all the provided receipts and invoices and the specific costs being claimed is to be included in the work report submission. The summary report/table must clearly reconcile with the costs entered in the report of work submission.

2. ABORIGINAL CONSULTATION COSTS

When an assessment work report includes Aboriginal consultation costs, the following requirements shall be addressed in the technical report, in addition to the items required for the particular assessment work type,

- (i) summarize the consultation(s) that is being reported;
- (ii) identify the aboriginal communities that were consulted;
- (iii) include a statement indicating the objective(s) of the consultation(s);
- (iv) indicate the exploration project name, the mineral deposit or commodity being explored, and the proposed or ongoing work program;
- (v) identify the mining lands for which the consultation was performed, using the cell number(s) on the Provincial Grid, the claim numbers and/or lease numbers, and/or Licence of Occupation numbers;
- (vi) contain a key map showing the land consulted in relation to identifiable topographic features, Provincial Grid cell boundaries, mining land boundaries, township boundaries, and the coverage any applicable exploration plans and/or permits;
- (vii) state the dates during which the consultation(s) was performed;
- (viii) identify who performed the consultation(s);
- (ix) contain a summary of discussions, dates, and communications; and
- (x) include a summary of the results of the consultation(s).