# REPORT OF WORK GUIDELINES (revised MARCH 17, 2021)

#### Introduction

The following guidelines apply to a report of work submitted under section 56(1) of the *Mining Act* (http://laws.gnb.ca/en/showdoc/cs/M-14.1).

(i) In the context of these guidelines "coordinates" refer to a global spatial reference system. Coordinates may be expressed using the NAD83 datum reference system (preferred), NB stereographic coordinates, or Latitude/Longitude.

Tables, illustrations and maps, etc. must specify the Datum (i.e., NAD83; NAD83(CSRS)), and either the UTM with Zone (e.g., NAD83 Zone19) or the Projection (i.e., NB Stereographic). As the 66° line of longitude divides New Brunswick into two (2) UTM Zones, it is necessary, when using UTM coordinates, to state the Zone to which the coordinates apply (Zone 19 is west of 66°, whereas Zone 20 is to the east of 66°). Listed coordinates must also denote easting and northing.

If utilized, Latitude /Longitude should be expressed as decimal degrees (i.e., 45.3417° / 65.5042°).

Where coordinate point data were collected by the proponent, it is required that the category of instrument used to obtains the data is stated, e.g., cellular phone, handheld GPS, differential (i.e., high precision) GPS.

- (ii) In the context of these guidelines a "map" or "illustration" or "figure", collectively referred to as a "Map" or "Map(s)", shall be spatially referenced (see preceding Item (i), or indicate at least one (1) coordinate point\*. See Figure 1 as example.
  - \* Note: a coordinate point can be easily added to any screen view in NB e-Claims by selecting "Plot Coordinates" from the "Tools" tab (top left) and selecting a point on the map. The desired coordinate system (NAD83, NB Stereographic, Lat-Long) can also be selected from the left screen area under "Coordinate System".
- (iii) The **Map(s)** shall include:
  - a bar-scale;
  - an indication of astronomic (True) North, or an indication with respect to astronomic North;

- a Legend describing the principal items of interest. **Map(s)** inserted into the text of a Report of Work (ROW) shall include a Legend that is legible at the scale it appears in the report, or a description of the elements of interest in the caption.
- (iv) In the context of these guidelines "accompanying digital files" when referenced with "copies of Certified Assay Certificates and accompanying digital files" means copies of the original laboratory data files, typically in Excel® or csv format, that accompany the copies of the Certified Assay Certificates. Copies of the Certified Assay Certificates are to be included in the submitted Report as an Appendix. The "accompanying digital files" should be submitted independently from the Report.
- 1 (1) A report of work shall be submitted and:
  - a) a separate report is required for each mineral claim, or multiple claims if they are contiguous and have the same claim holder;
  - b) shall be submitted by one of the following methods;
    - i. electronically: uploaded to NB e-Claims (<a href="http://nbeclaims.gnb.ca/nbeclaims/help-see">http://nbeclaims.gnb.ca/nbeclaims/help-see</a> Figure 2), e-mailed to <a href="mailto:NBeClaims@gnb.ca">NBeClaims@gnb.ca</a>, or submitted via USB (memory stick), in one of the following formats;
      - A. Microsoft Office compatible application; and/or
      - B. unsecured Adobe PDF (version later than 1.7)
  - c) accompanying files comprising digital data (analytical, geophysical, etc.) shall be included in the submission, but as separate files (Note: only pdf files can be uploaded directly to NB e-Claims, other file formats should be sent by email to NBeClaims@gnb.ca);
  - d) hard copies will no longer be accepted by the Recorder's office.
- 1 (2) The holder of a mineral claim shall not submit receipts with a report of work; however, such receipts should be retained and may be requested by the Recorders office
- 2 (1) A report of work shall:
  - a) express scales in metric units and include reference coordinates;
  - b) express all geochemical and geophysical data in metric unit;
  - c) be clearly written and concise, and shall have each page sequentially numbered;
  - d) have attached as separate files, any and all geochemical analytical data and originally recorded geophysical data in such digital format (e.g., Excel, csv, txt) that can be readily imported into a spreadsheet or database-style system.

- 2 (2) shall contain the following information in roughly the following order:
  - a) on the front cover of the report:
    - the registered name of the natural person, partnership or corporation for whom the mineral claim is registered;
    - ii. the registered name of the natural person(s), partnership(s) or corporation(s) who performed the work if not the same as 2(a)(i);
    - iii. the mineral claim or lease number. A list of the claim units comprising the claim must be included on the Title page, or in the body of the Report)
    - iv. the mineral claim or lease name;
    - v. the general nature of the work;
    - vi. the general dates during which the work was performed;
    - vii. the designation of the National Topographic System 1:50,000 sheet(s) on which the mineral claim area or lease area is situated; and
    - viii. the name of the author and the date of the report;
  - b) a table of contents which shall include:
    - a list of each principal subdivision of the text with the corresponding page number;
      and
    - ii. a list of each appendix, plan, map, table, figure or other illustration by title and number indicating the corresponding page number or location in the report;
  - c) a summary of the work performed;
  - d) an Appendix comprising copies of: the Notice of Proposed Work (Form 18/18.1) and accompanying Recorder's Letter of Approval; and, a completed Statement of Expenses (formerly Form 20) detailing exploration work expenditures;
  - e) an introduction, which shall include a brief description of the geographic and geologic setting of the mineral claim area and the means of access to it;
  - f) a property location Map at an appropriate scale clearly showing the boundaries of the mineral claim or lease in relation to recognizable topographic features of the mineral claim or lease area;
  - g) a brief description or list of the previous relevant work performed in the mineral claim area;
  - a work location Map at an appropriate scale including the grid area or the area mapped in relation to recognizable topographic features or to identifiable features on a lease area boundary;
  - i) the results from the exploration work, the detailed technical data (refer to Item 4) and the conclusions and/or recommendations drawn from the results;
  - i) a list of references; and
  - k) the signature and/or stamp of the author and the date signed.

- 3 (1) Maps and other illustrations submitted with a report of work shall:
  - a) express scales in metric units and include reference coordinates;
  - b) be so uncluttered and have such large and clear printing or symbols that they are readily discernible at the scale of the Report;
  - c) if included as attachments, and not as illustrations in the text of the Report, be submitted at a resolution, such that upon magnification any and all text is legible (generally ≥300 dpi-density);
  - d) where appropriate, include in their lower right corner their identifying title, an appropriate bar-scale and a legend.
- 3 (2) Cross-sections, longitudinal, profiles and similar diagrams (i.e., "Sections") shall:
  - a) include a bar-scale expressed in metric units;
  - b) include section reference coordinates or indicate line of section on a plan Map;
  - c) include a Legend explaining the principal items of interest; and
  - d) indicate section orientation (azimuth or approximate azimuth) on the section or in the Legend;
- 3 (3) All illustrations shall be consecutively numbered and listed in the table of contents.
- 4 The detailed technical data required in subparagraph 2(j) are as follows:
  - a) for grid establishment, a Map(s) at an appropriate scale showing the location of each established line and at least four (4) reference points with spatial (not grid) coordinates to facilitate referencing the grid into GIS. Start and end coordinates for each grid line would be welcomed;
  - b) for general prospecting:
    - i. description of observations;
    - ii. a summary table or (Appendix) containing the reference ID (unique number) and location coordinates for all samples or relevant observation sites.;
    - iii. **Map(s)** at an appropriate scale showing:
      - A. the location and result of instrument readings/geological measurements;
      - B. the location (with sample ID) of all collected samples;
    - iv. a summary of noteworthy analytical results, if any;
    - v. copies of Certified Assay Certificates and accompanying digital files
  - c) for trenching, stripping or excavation of pits:
    - i. a description of how the work was performed;
    - ii. the dimensions of each trench, area of stripping or pit, including the depth (for pits), or average depth (for trenches and stripped areas) of material removed;

- iii. the coordinate locations of the start, end and any deflection points of the trench(es);
- iv. **Map(s)** at an appropriate scale showing:
  - A. location(s) of the excavations at the claim/lease or claim unit scale;
  - B. individual **Map(s)** showing the outline of each trench/stripped area indicating the exposed geology/contacts sample/channel locations with ID's; coordinate locations of the start, end, and any deflection points of the trenches.
- v. a brief geological description of any bedrock exposed;
- vi. a summary table or Appendix of reference ID and location coordinates for all samples;
- vii. a summary of all analytical results, if any;
- viii. copies of Certified Assay Certificates and accompanying digital files.
- d) for shaft sinking, tunneling and other underground work:
  - i. a description of how the work was performed; and
  - ii. **Map(s)** and sections at an appropriate scale showing the location of the work performed;
- e) for geological mapping surveys:
  - Map(s) at an appropriate scale showing the distribution of lithologic units, location of each outcrop or area of outcrop examined and rock types, attitudes of bedding and structures, mineralization, sample locations and a map legend describing lithologies and symbols used on the map;
  - ii. the **Map** should include all geological aspects observed, including lithology, folding and faulting, mineralization, veins, alteration, primary textural features of sedimentary, metamorphic and igneous rocks, fossils etc., as well as the results of sampling and all geochemical and geophysical work conducted. All results should be related to previous work where applicable; and such other **Map(s)**, graphs, profiles or sections as may be useful in presenting the results of the work;
- f) for each geophysical survey:
  - i. a description of the method, the procedure followed, operating procedures/conditions, components measured, units of measurement, units in which the results are presented;
  - ii. the make, model and specifications of each instrument used; and
  - iii. where the method used is new and not described in readily available literature, a summary of the underlying theory and a full description of the type of instrument used, the methods of measurement and data reduction and the results from test areas;

- g) for a ground geophysical survey:
  - the data required in paragraph (f);
  - ii. **Map(s)** or profiles at an appropriate scale showing the numerical values obtained and measurement locations/stations, (i.e., grid), and providing processing methods where filtered or smoothed data are used; and
  - iii. such other **Maps**, graphs, profiles or sections, showing the data in contoured form or otherwise interpreted; as may be useful in presenting the results of the work;
  - iv. the originally recorded or "raw data" from the survey in digital form (i.e., as Excel or csv files, as provided by the entity that carried out the survey), as an attachment(s).

## h) for an airborne geophysical survey:

- i. the data required in paragraph (f) and the report received from the company having carried out the survey;
- ii. **Map(s)** or profiles showing the flight lines and either the actual numerical values obtained or the results in contoured form whichever is more appropriate; and
- iii. a description of the method procedure followed, including array transmitter location, correction for diurnal variation flight lines interval, ground speed and terrain clearance, where applicable;
- iv. the originally recorded or "raw data" from the survey in digital form (i.e., as Excel or csv files, as provided by the entity that carried out the survey), as an attachment(s).

## i) for all geochemical surveys:

- i. a description of the field sampling procedure, including analytical protocols
  - A. details of the study area: vegetation and soil, including physiography, maximum and minimum elevations, drainage, types of vegetation and depths of soil; and
  - B. details of the media (till, soil, water, vegetation etc.) sampled and field sampling protocols, e.g., soil horizon sampled, and the sample depth;
- ii. where bedrock has been sampled, a description of the rock type;
- iii. for sample preparation and analysis:
  - A. a laboratory report; or
  - B. the name of the laboratory or chemist who performed the analysis;
  - C. the mesh size fraction of the sample (if applicable);
  - D. the analytical method(s) used, describing new methods in detail;
  - E.In-lab sample preparation e.g. crushing milling etc.
  - F.In lab QA/QC standards/ blanks/ duplicates etc.

- G. A list of QA/QC procedures/protocols of the submitted data including information on standards and duplicates submitted with each batch of samples.
- iv. an interpretation and evaluation of the results. Where possible, results should be related to the geology, topography and soil types of the test area and to previous work;
- v. **Map(s)** or profiles at an appropriate scale showing the location of each sample collection site with unique sample identification number, and a table of data containing unique sample identification numbers and site location coordinates
  - A. where noteworthy variations have been found in the analytical data, a **Map(s)** at an appropriate scale showing the analytical data in contoured form;
  - B. **Map(s)**, graphs, sections or other illustrations showing data in contoured form or otherwise as may be useful in presenting the results of the work;
- vi. a list(s) of technical information collected at each site;
- vii. Copies of Certified Assay Certificates and accompanying digital files for all submitted samples.

#### j) for drilling:

- for each drill hole, the geographic coordinates; dip and azimuth, core size or hole diameter, length, all collected down-hole deviation data, start and completion dates, and name of the company that performed the drilling;
- ii. for drill holes on mineral claims the collar elevation (above sea level) and abandonment information (casing pulled? Y/N, hole cemented? Y/N, etc.);
- iii. for drill holes on mining leases, the absolute collar elevations and abandonment information;
- iv. results of all downhole geophysical survey data;
- v. complete and clearly legible logs of all core or cuttings, listing all observed rock type, intervals, mineralization;
- vi. where assays or litho-geochemical analyses were performed, the complete analytical results clearly correlated with the logs; including the sample number, the length of each interval sampled, and the down-hole start and end points of each sample.
- vii. copies of Certified Assay Certificates and accompanying digital files;
- viii. where geophysical logging was performed, in addition to the data required in 4 f); a graphic geophysical log clearly locating the geophysical data with respect to the drilled hole and the geology intersected by that hole. In the case of

- electromagnetic surveys, a **Map** showing the location of the transmitter loop is required;
- ix. a **Map** showing the location of each collar with respect to the mineral claim or grid and/or geographic features; and
- x. cross-sections as are useful in presenting the results of the drilling;
- k) for other sampling and assaying, metallurgical or beneficiation, petrographic or mineralogical studies:
  - i. a description of the procedure for sample collection and preparation;
  - ii. a review of theory of the type of analysis or study procedures and results;
  - iii. Map(s) distinctly showing the source location and identifier of each sample site;
  - iv. for metallurgical beneficiation studies, charts or diagrams illustrating procedures and results; and
  - v. all corresponding analytical data, where applicable.
- I) for all other remotely sensed data or remote imagery:
  - i. a review of the procedures, and the results; and
  - ii. Map(s), photographs or diagrams illustrating results;
- m) for road construction
  - i. a description of how the work was performed;
  - ii. the length and width of the road; and
  - iii. a work location Map required in subparagraph 2(i).
- Sections 1 to 4 apply with the necessary modifications to a report for a regional survey as defined in sections 62 to 66 in the *Mining Act*.

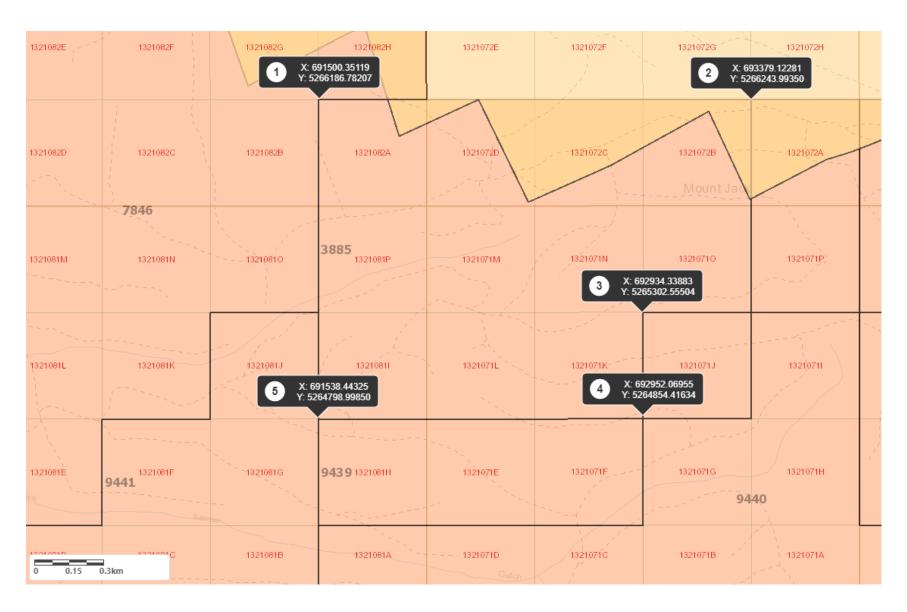


Figure 1: Example of e-Claims screen capture with coordinates added

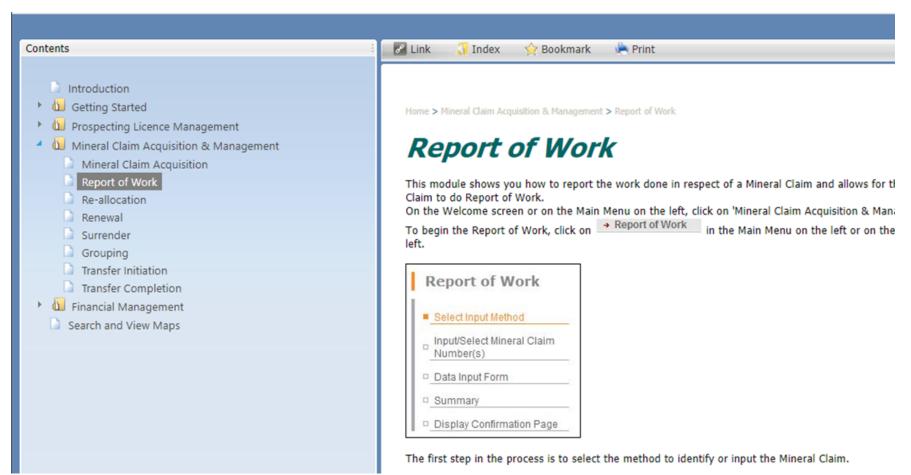


Figure 2: Location of "Help" folders in e-Claims for uploading ROW and related digital data files

