

Assessment Report Guidelines

Guidelines are derived from Regulation 64-92 Mineral Disposition and Mineral Lease Regulations and The Manitoba Mines and Minerals Act.

June 10, 2021

Introduction

This guideline has been written to ensure the Government of Manitoba has the information required to review reports of work, to assign work credits in a timely manner and allow mineral tenure holders to retain their mineral tenure. This guideline was created to clarify points within the Mineral Disposition and Mineral Lease regulation, 1992, as such the information contained within is meant to compliment not replace the Mineral Disposition and Mineral Lease regulation, 1992. This technical standards guideline document sets out what must be included in an Assessment report submission and how that information shall be submitted.

Assessment Reports

General Information

The Mines and Minerals Act (Act), states that the holders of Mineral Exploration Licenses and mining claims are required to submit Reports of Required Work under sections 53(1) and 80(1). Evidence of expenditures for approved work where a mineral lessee who has not commenced mining under a mineral lease, is also required under section 34 of the Mineral Disposition and Mineral Lease Regulation, 1992. Collectively, these reports as referred to as Assessment Reports.

Assessment reports are the primary and most current source of detailed exploration data available to inform government of exploration activities in Manitoba. These Assessment Reports enable government to assign work credits to assess if the required work has been completed on active dispositions and inform decision making. Failure to submit Assessment reports in a timely manner will result in the loss of mineral tenure. This guide outlines the reporting requirements and eligible work activities to obtain work credits under the Mines and Minerals Act.

Assessment reports must consist of original work and studies rather than producing compilations of previous work (see the Mineral Disposition and mineral Lease Regulation Schedule B). Accounts based on brief property visits and poor data are not acceptable as technical reports. Previous work should be referenced in a standard bibliographic format (see example below), and if data is used from previous assessment reports, those report numbers must also be referenced (provide assessment file number for referenced data in new report).

Example of scientific bibliographic style using name-year format:

Gilbert, H.P. 2006: Geological investigations in the Bird River area, southeastern Manitoba (NTS 52L5N and 6); in Report of Activities 2006, Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, p. 184–205.

Assessment Reports submitted in accordance with the Act and regulations will have confidential status for a period of three years from the date of report submission. Airborne surveys will receive a confidentiality period of five years from the time of survey completion, with the opportunity to extend the confidentiality period to 10 or 15 years with written approval of the Director of Mines (see Part 4.1 Airborne Surveys in the *Mines and Minerals Act*).

Report contents

Assessment reports must contain the following parts:

- Title Page and Summary Page, with both pages fully filled out. Title Page must contain:
 - Project name;
 - NTS area where work was conducted;
 - General nature of the report;
 - Name and address for owner of claims;
 - Author(s) of the report; and
 - Dates on which the work was performed.
- Table of Contents in accordance with the consecutive page numbering used in the report, with a listing of the main sections of the report, diagrams, drill logs or any other documentation, including numbered appendices, maps, figures and other illustrations.

- A summary of required work performed, including:
 - The general geographical location;
 - Registration number(s) of mineral dispositions on which work was performed;
 - Target commodity; and
 - Summary of required work based on work type (see below).
- Brief description of the regional and property scale geological setting with an accompanying geological map.
- Technical data and interpretation (purpose of work, results, interpretation, and conclusions).
- Author's qualifications including professional status.
- List of software used (see below).
- All additional information outlined in [Section 3 of Schedule B](#).
- All measurements presented in text, maps or tables must be reported in metric units.

Maps

At a minimum, all maps must be identified with a figure number, and include the following:

- Title;
- Metric bar scale;
- North arrow;
- NTS coordinates and grid;
- A complete legend; and,
- Property boundaries with geography and infrastructure (highways, towns, etc...).

In addition, all mining claim maps must show:

- Local physiography;
- Mining claim name/number; and
- Mineral disposition boundaries and identifiable topographical features at a scale not larger than 1:20,000 and not smaller than 1:250,000.

In addition, all geological maps must show:

- Outcrop outlines and identify lithology, structure, mineralization, textures and metamorphic features; and
- The scale of mapping and the total area surveyed.

Please be aware:

- Detailed work (trenches, outcrop mapping, etc.) mapped at 1:1000 or a scale that is more detailed, must be indexed to a master map.
- Geophysical coloured grids must have a fully correlated legend, with units of measurement indicated.
- Digital copy maps must be presented in PDF at a scale where information is legible at 100% PDF scale. PDF maps larger than letter-sized pages are encouraged (where appropriate) to clearly depict all relevant information.
- Paper maps must be less than 1.0 x 1.2 metres in size.
- Digital maps should be converted to PDF format directly from the application in which they were created.
- If maps (or any other data) cannot be directly converted to PDF, the files must be scanned at a minimum of 300 dpi into PDF format, be correctly aligned, and be inserted into the report in the proper sequence.

Prospecting activities

Only one report of detailed prospecting activities on a disposition will be accepted for assessment credit by the same owner(s) or operator(s) that hold the disposition. Future work must expand upon the initial prospecting activities to add to the understanding of that property (i.e. geochemical sampling, mapping, etc.). When reporting on prospecting activities, it must include the following information:

- A list of the total line kilometers prospected or traversed;
- An accurate map constructed at a reasonable scale showing the location of area prospected, location of traverses, location and nature of rock outcrops and mineralization identified; and
- A description of any samples taken, sample locations, analytical results, and instrument readings described and plotted.

Survey information

When reporting on surveys conducted, include the following information:

- Outline the specific objective of the survey;
- Specific procedures and details on what and how any samples or data were collected;
- Make and model of any instruments and equipment used, and the procedures followed; and,
- Include all results along with a discussion/interpretation of results, any conclusions and recommendations.

Geochemistry

When reporting on geochemistry, the report must include:

- Total number of each sample type (soil, till, vegetation, rock chip, other);
- Sample location coordinates;
- Complete sample descriptions (include sample numbers that align with analytical results); and
- Dates of sampling.

For each survey, provide the following information:

- Details on how the samples were collected;
- List the analytical laboratory name, sample preparation, and methods of analysis;
- Analytical certificates from the laboratory included in the report (as non-protected .pdf files); and
- All lab results provided in the format received by the lab (.xlsx, .csv or similar file type).

In addition:

- For soil sampling programs, describe the nature of soil horizons and unconsolidated sediments observed and sampled;
- For rock samples, describe the nature of the bedrock and the rock units that were sampled;
- For biogeochemical surveys, describe the species and what part of the plants were sampled;
- For airborne geochemical surveys – presentation is similar to airborne geophysical surveys – and must include:
 - Results of control surveys over ore and known barren ground;
 - Detailed meteorological conditions; and
 - Description of vegetation cover.

Geophysical surveys

When reporting on geophysical surveys:

- Describe each survey type;
- Provide the total line kilometers surveyed for each survey type; and
- Include any edited or smoothed/filtered data that accompanies the raw data.

Ground geophysics

For ground geophysics a summary of the geology of the area, in the event that a separate geological report is not submitted, must be included.

For radiometric surveys, provide an outline of outcrops.

Airborne geophysics

All airborne geophysical maps must include:

- Survey location;
- Flight lines;
- Grid in relation to surface features;
- North arrow; and,
- Scale.

The report must include:

- Survey method used and description of method;
- Aircraft speed and ground clearance;
- Details of airborne instruments;
- Ground clearance of towed instruments, if applicable;
- Grid line spacing and tie lines, if applicable;
- Notice of the airborne survey number that the survey was conducted under;
- A full description of all the parameters for all airborne geophysical surveys;
- The date when the survey began and was completed;
- The names of any contractors;
- All results reported must be compatible with Geosoft database (GDB) and Geosoft grid (GRD); and
- Interpretation of the data.

Drilling

All drilling reports must include:

- Drill hole collar NTS location, elevation, inclination/azimuth, dip test results (note if not done);
- Hole/core diameter, number of holes, and total metres drilled;
- Geological drill logs, including all hole details, meterage, lithologies, and all assay results correlated to drill logs using sample numbers;
- Location of core storage;
- Plan map (not smaller than 1:5000) showing the location of all drill hole collars and horizontal projection of all holes with respect to topography, disposition boundaries, and grids;
- Include the name of the drilling contractor and the number of the borehole licence under which the drilling was conducted, if applicable; and
- Include all raw assays from drilling in the form of Excel files (.csv or .xlsx) that correlate to sample numbers in the drill logs.

Physical work

Trenching work:

- Must be shown on a map (scale no smaller than 1:5000) showing location relative to disposition boundaries, the dimensions of the trench, the sampling locations and sample numbers with results. Provide a summary outlining the reason for trenching in that location, nature of rocks and mineralization, and all assay results.

Shaft sinking and underground work:

- Must be shown on a map relative to topography and disposition boundaries. Provide a description of all shaft sinking and/or underground work. Describe all geological features and mineralization encountered, as well as all sampling plans with assay results.

Line cutting:

- Outline the total length in kilometers of newly established and re-established lines.

For all other physical work (trail/road establishment, claim post re-establishment, etc.) provide all details of work and show extent of work area on maps with metric dimensions noted.

List of Software Used

The report must include a list of all software used during the work that is being reported, whether it was used by the disposition holder or any contractors. This also includes software used during the preparation of the technical report. The software listing must be included on a separate page and included in the table of contents.

Statement of Qualifications

All reports must include a statement of all author's qualifications, including a signature (digital signatures are acceptable). Geologists, geophysicists, geological/geophysical/mining engineers, and prospectors must state all pertinent training and experience. Also note any professional designations or certifications that are relevant to the author's qualifications.

Assessment reports are formal documents that form part of the permanent record of exploration data. They must be written by qualified authors in good standing and meet prescribed standards.

Statement of Expenditures

Assessment credits are determined from the content of expenditures spent through the work outlined in the assessment report. Expenses must be in line with current commercial rate costs and must be documented and clearly outlined in the statement of expenditures. Total work costs may be proportionally distributed amongst the specific claims where work was performed. Expenditure evidence in the form of invoices and receipts may be requested where expenditure clarification is necessary. Please use the statement of expenditures excel template as a guide for all expenditure submissions (available on the Provincial assessment webpage).

Assessment Report Format

Digital PDF's are the preferred reporting format for text based report files and may be submitted through the iMaQs website. A PDF guide on how to submit reports iMaQs can be viewed on the [iMaQs Tutorial Webpage](#). Below are some key points to remember:

- Manitoba is moving towards paperless submission of assessment reports, digital submission of all reports is strongly recommended;
- Paper reports will be accepted but where submitted must consist of bound legible and understandable letter-size (8-1/2" x 11") pages with consecutively numbered pages, references (where appropriate), figures and maps. Figures, maps and tables may be submitted where necessary on larger format pages (see Maps section);
- All data must be submitted digitally without passwords, locks, restrictions, or embedded files or links. This data will be submitted via the iMaQs online system. If files exceed 10Mb, please submit to the Regulatory Services Branch (formerly Mines Branch) office by CD/DVD/USB (see Section on Digital Data Submission below).

Digital Data Submission Requirements

All digital data files used or created as part of the work described in the assessment report must be submitted. All digital data should be uploaded through the iMaQs system when creating a Report of Work submission. If data files exceed 10Mb, then they must be submitted by CD/DVD/USB when a report is filed on iMaQs.

Data types to be submitted as part of assessment reports include:

- Geological data: station location details, station descriptions, purpose for station (structural measurements, features, etc) (e.g. .csv, .xlsx, .shp);
- Geochemical data (surface or drill hole): sample location information, sample descriptions/notes, analytical certificates (e.g. .csv, .xlsx);
- Geophysical data (ground and airborne): raw data files, processed data (e.g. .gdb, .xyz, .csv, .grd);
- Drilling data: collar location (UTM grid only), azimuth/dip, depth, downhole orientation surveys, core logs, sampling details, geotechnical measurements, analytical certificates (e.g. .csv, .xlsx, .acbdb);
- Imagery data: Satellite images, LiDAR, orthophotos, etc (e.g. .tif, other raw data files);
- GIS Products: point data, polygons, mapping files, etc. (.kml, .shp, .dxf, etc); and,
- Any other raw or processed digital files used during the work outlined or the creation of the assessment report.

If historic geophysical data or drill holes are being used or evaluated in the assessment report, the assessment file number cited must be included as reference in your report so that data may be verified, if needed.

Common oversights

When writing an assessment report there are many aspects to include, and it can be easy to miss details. After reviewing many assessment reports, below is a list of the most commonly missed information:

- Cover page information such as work dates, disposition holder, etc.;
- Map information such as scale, grid, North arrow, locational information and reference to the source material;
- Location coordinates for all samples taken;
- Raw data for geochemistry and geophysics reports;
- List of software used to collect, assess and compile the information presented.
- Vague or unsupported statement of expenditures or incorrect totals (we recommend using excel spreadsheet for expenditures to cross check values before submitting).