



Prouse, D.E. 2001: Updating Manitoba's Precambrian drill core libraries inventory; in Report of Activities 2001, Manitoba Industry, Trade and Mines, Manitoba Geological Survey, p. 179-181.

SUMMARY

Manitoba's Mineral Resources Division has been storing Precambrian drill core, obtained primarily from exploration drilling, since the early 1970s. Since that time, the Manitoba government has managed to create a substantial repository of drill core at five locations throughout the province. From 1984 to 1989, the Canada–Manitoba Mineral Development Agreement provided substantial funding to expand Manitoba's core library facilities. Since the early 1990s, the core libraries have been run on a care-and-maintenance basis. However, exploration companies continued to deliver drill core to various libraries on a sporadic basis. Due to the lack of funding, core library inventories have not been kept up to date.

In 2001, funding became available to better organize recent drill core additions and to update all core library inventories. Drill core stored at the Centennial compound near Flin Flon was reorganized and inventoried for the first time. The department is also creating a new database of all drill core holdings within the province's libraries.

INTRODUCTION AND HISTORY

The Manitoba Mineral Resources Division considered the archiving of exploration drill core to be a valuable data source that can be utilized by explorationists and researchers. For this reason, the province has retrieved and stored Precambrian drill core since the early 1970s. The construction of core sheds at The Pas (1972), Thompson (1973) and Lynn Lake (1974) provided storage space that enabled a concerted effort toward core collection. The acquisition of storage space in Winnipeg in 1980 for drill core from southeastern Manitoba meant that there was a core storage facility for drill core collected and donated by companies carrying out drill programs in the major greenstone belts of Manitoba.

Precambrian drill core collection has been the responsibility of various Manitoba Industry, Trade and Mines (formerly Manitoba Energy and Mines) personnel. Mines Branch staff administered core collection, or exploration companies delivered core to storage facilities. By the end of 1982, 89 000 m of drill core had been collected. Due to staff shortages during the 1970s, much of this core was not properly inventoried, nor was it stored in an organized manner.

In 1984, the governments of Canada and Manitoba embarked on the Canada–Manitoba Mineral Development Agreement (MDA). This five-year agreement allotted \$24.7 million toward activities that were key to strengthening Manitoba's mineral industry. During the term of the agreement, \$631 000 was spent on capital and operating costs of Manitoba's Precambrian Drill Core Libraries Program. This funding allowed for the expansion of all northern core storage facilities, as well as better documentation and organization of inventories. Once the library expansion projects were completed, the four libraries had a combined storage capacity of approximately 333 000 m of core. Nearly 80 000 m of core were collected and added to the libraries, and about 58 000 m were discarded during the period of the MDA. The libraries contained nearly 180 000 m of core, representing about 54% of total capacity, at the end of the MDA in 1989 (Prouse, 1989).

With the expiry of the MDA, funding for programs related to the core libraries was greatly reduced. Since approximately 1992, the core libraries have been run on a care-and-maintenance basis. Core retrievals by government personnel have been very limited, but exploration companies have continued to deliver core to the libraries.

In 1989, a new regional office was opened in Flin Flon. In 1993, the establishment of an expediting camp at the former Centennial mine site near Bakers Narrows provided secure outside storage for drill core from the Flin Flon area. Since that time, thousands of metres of drill core have been donated for storage by various companies. Drill core at the Centennial site was not included in the provincial libraries inventory.

In June 2001, it was estimated that the department's core library facilities contained approximately 242 000 m of Precambrian drill core. This figure includes about 15 500 m of Precambrian core from various exploration projects stored at the Midland rock lab in Winnipeg. This estimate does not include the substantial holdings at the Centennial site.

2001 INVENTORY UPDATING PROGRAM

In the spring of 2001, funds were made available to organize and update drill core that had been added to the northern libraries since the early 1990s. As well, preparation began on a new computer database to store key information for each drill-hole stored in Manitoba's core libraries. Presently, Open File Report OF89-4 (Prouse, 1989) is the only published report listing Manitoba's core library holdings. The new database is being prepared by Jim Payne, the Assessment Geologist with Manitoba Industry, Trade and Mines (ITM) in Winnipeg. When completed, the database will provide Internet access to information regarding Manitoba's core libraries inventory. One of the key objectives of creating the new database will be the ability to produce maps illustrating the location of drillholes that are held in Manitoba's core libraries. As of September 2001, the database contained information on approximately 2400 drillholes, and it is estimated that there will be 300 to 400 more

drillholes added to the database as the library inventory updating project progresses.

This past summer, with the assistance of summer students and personnel from the Manitoba Geological Survey's Midland rock lab, recent drillhole contributions were reorganized and inventoried at all of the northern core libraries.

In The Pas, 10 holes drilled by Noranda Exploration from Reed Lake and 13 holes by Manitoba Mineral Resources Ltd. in the Minago River–Moose Lake area were organized and added to the inventory. A total of 36 holes drilled in the Snow Lake area by various junior companies and 10 holes drilled by Homestake Mineral Development Company at Elbow Lake will also be added to the inventory.

In Thompson, drill core placed in recently constructed outside racks was inventoried and new drillholes added to the inventory list. All inventory in the inside storage racks was checked for accuracy with previous listings. Thirteen Cominco drillholes from the Easterville–Lake Winnipegosis area were also added to the inventory list.

In Lynn Lake, 40 drillholes by Aur Resources from the Lynn Lake area were added to the inventory. Another 26 holes drilled by Manitoba Mineral Resources Ltd. in the early 1990s at Farley Lake and in the surrounding area were also added to the listings. The core library yard was cleared of scrub brush to make room for a local contractor to retrieve approximately 900 boxes (representing 20 holes) of drill core from the core storage racks at the Fox mine site. These drillholes are from the surface exploration program carried out by Sherritt Gordon Mines to define the Fox mine deposit in the early 1960s. The core racks at the Fox mine are deteriorating and falling over, and the Fox mine site is gradually being reclaimed. The department felt that the surface drillholes from the Fox deposit are a valuable source of stratigraphic information that should be saved for future research purposes. These drillholes will be added to the Lynn Lake core library inventory in 2002, in the outside storage racks if space permits.

The Centennial core storage compound near Flin Flon has received drill core donations from various companies since the site was erected in the early 1990s. By far the largest contributor to this site has been Hudson Bay Exploration and Development, with drill core coming from various projects in the Flin Flon area. Other large contributions have been made by Cominco and Callinan Mines. Due to the lack of funding and manpower, drill core at the Centennial site was both poorly organized and inventoried. Since its inception, core delivered to Centennial has been stacked on pallets on the ground; as a result, core boxes and piles have been gradually deteriorating due to exposure to the elements. This past summer, all drill core piles were better organized and restacked on new pallets, which were then placed on treated fence posts. This will help to preserve this core until some form of sheltered storage facility can be obtained for this resource. The process of taking inventory at Centennial was partially completed in July. The balance of the inventory was to be documented by early October. The data associated with the drillholes will be obtained from the exploration companies or assessment records and added to the database.

FUTURE PLANS

Since many of the province's northern core libraries are nearly full, there is little space available for new core acquisitions. This is particularly true for the Thompson and Lynn Lake facilities. The department is considering a program to condense drillholes (telescoping), in order to reduce inventories and free up storage capacity. The Lynn Lake and The Pas core libraries contain a number of projects with zone-type drilling, but The Pas facility still has adequate space remaining for additional inventory until telescoping becomes necessary. With the addition of new Fox mine drill core, the Lynn Lake library racks will be close to capacity, so telescoping will become necessary. Although the core racks at the two storage buildings in Thompson are completely full at present, there is less opportunity to reduce holdings by condensing holes at this facility. Consideration is being given to expanding the compound yard at the Thompson site, which may provide space for additional outside storage of some type.

HOW TO USE MANITOBA'S CORE LIBRARIES

All five core libraries have lighted, heated inspection rooms with benches, and most have core splitters. Because the core libraries are not permanently manned, inquiries and requests for access to the northern libraries must be made to:

Dave Prouse, Resident Geologist
Manitoba Geological Survey
Manitoba Industry, Trade and Mines
143 Main Street, Suite 202
Flin Flon, MB R8A 1K2
Phone: (204) 687-1632
Email: dprouse@gov.mb.ca

Access to view core at the Brady Road facility in Winnipeg should be arranged with:

Jim Payne, Assessment Geologist
Mines Branch
Manitoba Industry, Trade and Mines
1395 Ellice Avenue, Suite 360
Winnipeg, MB R3G 3P2
Phone: (204) 945-6535
Email: jpayne@gov.mb.ca

Once permission has been granted to view nonconfidential core in a specific library, arrangements will be made for the user to obtain keys to gain access to that facility. In the case of Thompson, The Pas and Flin Flon, keys can be obtained at the local ITM offices. Keys for access to the Lynn Lake core library will be made available at the local office of Manitoba Conservation.

The master file of drillhole logs, collar locations and assays for nonconfidential drill core holdings in The Pas, Lynn Lake and Flin Flon libraries will be available for inspection at the ITM office in Flin Flon. The corresponding files for core stored in the Thompson and Winnipeg libraries will be available for viewing at the ITM office at those locations.

Viewing, Storage and Sampling Policy

Access to confidential drill core is allowed only with written permission from the company that holds the property. This information must be presented to the Resident Geologist in Flin Flon or the Assessment Geologist in Winnipeg prior to inspection (depending on the core library in question).

Core boxes placed in a library will be managed by ITM personnel. Removal of core boxes from the library premises is not permitted. Users wishing to examine drill core must be prepared to physically handle the core boxes and return them to the racks. Permission is required to sample core contained in any of the province's libraries. Assay results and pulps from these samples must be forwarded if requested. Quartering of previously sampled drill core is not permitted.

Drill Core Acquisition Policies

Manitoba's drill core acquisition policies try to reflect the exploration strategies of the mineral-exploration industry and, as a result, are subject to review as priorities change.

Collection

Since funding for the drill core libraries was greatly reduced after the termination of the MDA, requests for collection of drill core by department staff have had to be turned down, except in rare circumstances. When funding is available for retrievals, a number of factors are considered for precedence. These include 1) location; 2) cost of retrieval; 3) degree of risk to core from vandalism and weather; 4) amount of Precambrian outcropping in the area; and 5) importance of the core in terms of enhancing the understanding of the regional metallogenesis and stratigraphy. If resources allow, core from selected or representative holes will be collected from areas of abundant Precambrian outcrop and/or high drilling density.

For exploration companies or individuals wishing to donate drill core to the libraries, Manitoba Mining Regulation 64/92 allows for expenditures for the transportation of drill core to a departmental core storage facility to be submitted for assessment credit when filing reports of work on a mineral disposition.

Reduction

Where it can be established that information obtained from a group of drillholes located from the same area is redundant, holes or portions of holes that are representative of the subsurface geology and/or mineralization will be stored and the remaining material discarded. This will ensure adequate future storage capacity.

ACKNOWLEDGMENTS

The author wishes to thank Doug Berk and Vio Varga from the ITM Midland rock lab for their assistance in reorganizing and updating the northern core libraries. As well, this project could not have been successful without the diligent efforts of student assistants Mike Wazny, Russell Hiebert, Jim Varga and Ryan Dion.

REFERENCES

Prouse, D.E. 1989: Manitoba's Drill Core Libraries System; Manitoba Energy and Mines, Minerals Division, Open File Report OF89-4, 44 p.