

In Brief:

- A project was initiated to salvage archived drillcore stored outdoors at the Thompson Facility and Compound
- Damaged boxes were fixed or replaced, and relabelled if necessary
- Core boxes were re-stacked, roofed, and covered with tarps

Citation:

Couëslan, C.G. 2023: Thompson Facility and Compound core recovery project, east-central Manitoba (parts of NTS 54C, 63P, 64A); in Report of Activities 2023, Manitoba Economic Development, Investment, Trade and Natural Resources, Manitoba Geological Survey, p. 90–92.

Summary

A project was initiated in 2023 to salvage diamond-drillcore that has been stored outdoors at the Manitoba Geological Survey's Thompson Facility and Compound since the early 2000s. The drillcore boxes are in varying states of decay, with much of it in danger of becoming lost. Damaged boxes were either fixed or replaced, and missing, damaged or illegible box labels were replaced with metal DYMO® tags. The core was stacked back into new cross piles for greater stability, roofed with salvaged core boxes, and covered with tarps.

Project introduction and progress

Diamond-drillcore has been stored in 70 outdoor cross piles at the Manitoba Geological Survey's Thompson Facility and Compound since the early 2000s and is in varying states of decay (Figure GS2023-10-1a). The aim of this project is to recover and/or document as much of the salvageable core as possible before it is lost. The majority of core was drilled during gold exploration programs in the Assean Lake area (Assessment Files 74035 and 74112, Manitoba Economic Development, Investment, Trade and Natural Resources, Winnipeg); however, core from north of the Fox River belt and north and southeast of Thompson are also present (Figure GS2023-10-2). It was decided to focus this summer's efforts on this latter core, which was drilled in remote and inaccessible parts of the province where our geological knowledge is limited. It is hoped that the recovered core can be moved to secure indoor storage where it will be available for future study by industry, academic and government geologists.

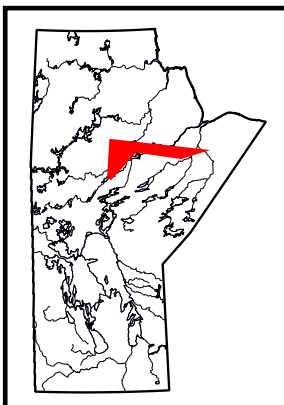
During July and August of 2023, the core was removed from the cross piles and laid out. Damaged boxes were either fixed or replaced, and missing, damaged or illegible box labels were replaced with metal DYMO® tags. The core was restacked in new cross piles. The cross piles were roofed with salvaged core boxes and covered with tarps (Figure GS2023-10-1b, c). Details of the recovered drillcore, including collar location, year drilled and name of exploration company that conducted the drilling, are listed in DRI2023006¹ (Couëslan, 2023).

Overall condition of the core was good; however, ultramafic rocks were generally found to be in poor condition from the many years of outdoor storage. Core recovery was close to 100%, with very few boxes being lost because of missing box tags, or core box collapse. Anywhere from 10 to 90% of core boxes were replaced in each cross pile. During recovery, it was found that some cross piles had become infested by carpenter ants. The debris created by the ants was washed out of the boxes whenever possible to reduce the likelihood of re-infestation, accumulation of moisture and promotion of rot.

In addition, drillcore that was salvaged in the fall of 2022 from the Thompson core shed, which collapsed in the winter of 2020, and was stacked in unsecured parallel piles were beginning to lean and collapse (Figure GS2023-10-1d). Tarps that were covering some of these piles had come loose and were only partially covering the core. An attempt was made to recover as much of the spilled core as possible, resulting in about 50% recovery. The piles were bound with steel strapping to prevent further loss of core, while ensuring that the tarps remain secure.

Economic considerations

Drillcore is a valuable resource that should be preserved, especially when it is drilled in inaccessible and remote areas. A conservative estimate of the cost to drill 181 holes would be in excess of \$20



¹ MGS Data Repository Item DRI2023006, containing the data or other information sources used to compile this report, is available online to download free of charge at <https://manitoba.ca/iem/info/library/downloads/index.html>, or on request from minesinfo@gov.mb.ca, or by contacting the Resource Centre, Manitoba Economic Development, Investment, Trade and Natural Resources, 360-1395 Ellice Avenue, Winnipeg, Manitoba R3G 3P2, Canada.



Figure GS2023-10-1: Diamond-drillcore stored at the Manitoba Geological Survey's Thompson Facility and Compound: **a)** cross piles stored since the early 2000s; **b)** salvaged drillcore in new cross piles with recycled core boxes for roofs; **c)** stacked cross piles of salvaged drillcore with tarps; **d)** spilled core that was previously stored in the core shed and moved in 2022.

million, and that would not include the additional cost of access to remote sites and the transportation of the core. Archived drillcore is often used by industry geologists to evaluate the mineral potential of an area, and can be a determining factor in whether or not investment dollars are spent in Manitoba. In addition, the core can be used by geologists from provincial and federal surveys and academia to further our understanding of the geology of Manitoba, which can, in turn, open up areas to new exploration activities and targets. It is hoped that the drillcore recovered during this project can be moved to a secure indoor storage facility where it can be made available to geologists wishing to learn more about the geology and mineral potential of the province.

Acknowledgments

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lent use of their binding equipment to secure the parallel stacked core. T. Martins and M. Nicolas provided reviews for previous drafts of this report.

References

- Couëslan, C.G. 2023: Salvaged diamond-drillcore at the Thompson Facility and Compound, from east-central Manitoba (parts of NTS 54C, 63P, 64A); Manitoba Economic Development, Investment, Trade and Natural Resources, Manitoba Geological Survey, Data Repository Item DRI2023006, Microsoft® Excel® file.
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- McGregor, C.R. 2012: GIS compilation of exploration drillcore from all Manitoba Geological Survey drillcore libraries; Manitoba Innovation, Energy and Mines, Manitoba Geological Survey, Open File OF2012-1, 1 DVD, URL <<https://manitoba.ca/iem/info/libmin/OF2012-1.zip>> [June 2023].

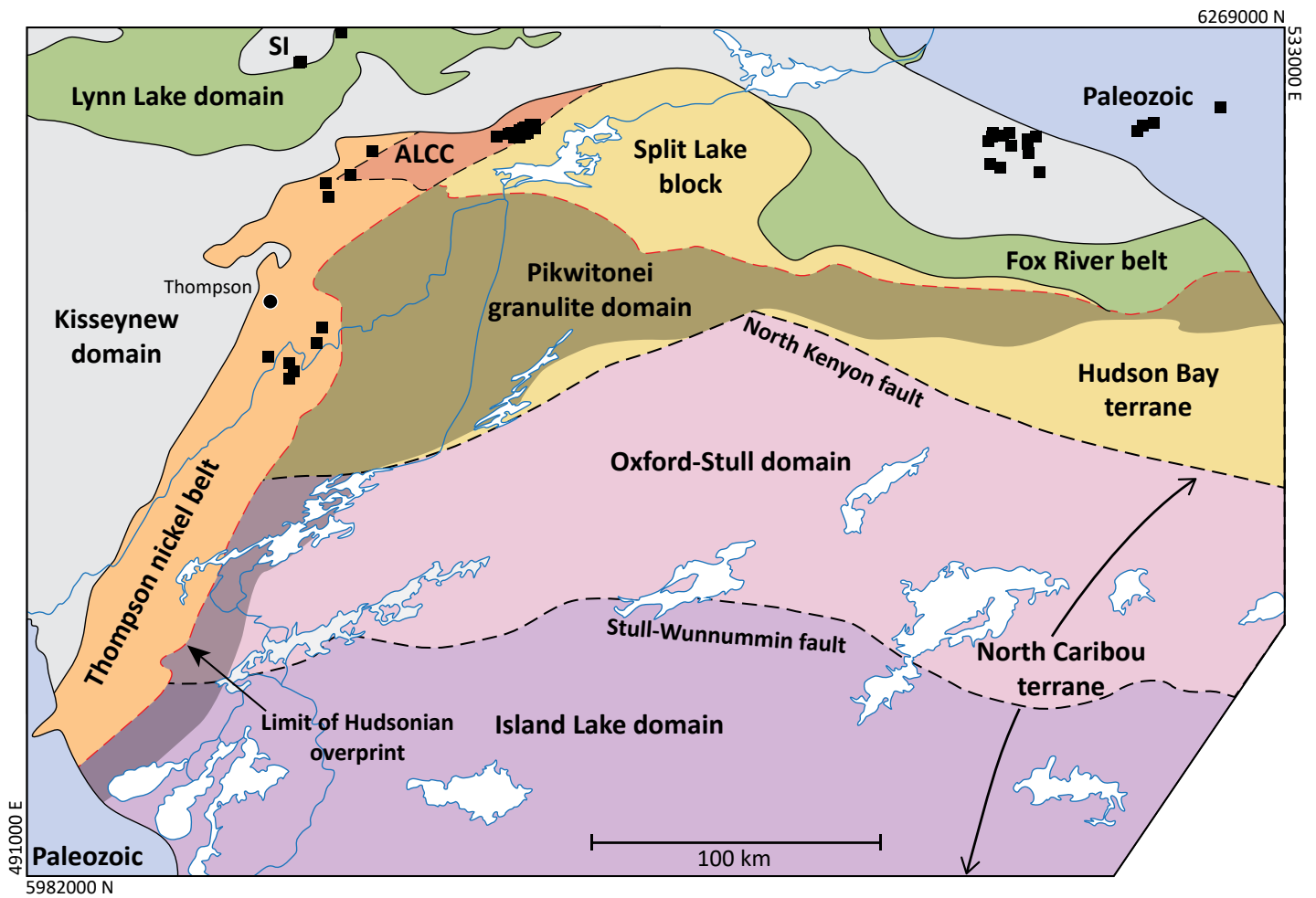


Figure GS2023-10-2: Geological domain map of east-central Manitoba. The collar locations of the drillcore stacked in cross piles at the Thompson Facility and Compound are indicated by black squares. Abbreviations: ALCC, Assean Lake crustal complex; SI, Southern Indian domain. Drill collar locations are from McGregor (2012). Geological domains are modified from Manitoba Geological Survey (2022).