

Drill Core Library 2006

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Introduction

The departmental Core Library is based in Stellarton, Pictou County, where a modern facility houses most of the department's drill core. Some additional core is stored in an older facility in Debert, Colchester County. Drill core and other sample materials are received from mineral exploration and development projects conducted by the private sector, as well as from departmental field work. A large collection of very valuable drill core and other reference material is thereby preserved and made available for future geological work. In addition to drill core, the archived samples include well-cuttings (from oil and gas drilling), rock slabs and geochemical samples (such as silt, till, soil, lake sediments and biogeochemical samples). All core is available for examination by interested parties and may be sampled subject to certain constraints and conditions. Logs, reports and maps are also available for consultation. As there is only one staff member, all visitors are advised to make contact in advance by phoning 902-752-4842 or by e-mail at mcmulljm@gov.ns.ca. Clients using the facilities should note that safety policies require the use of work boots, and also that Core Library staff do not lay-out or pick up the core boxes for clients.

Facilities and Services

The main Core Library facility is centrally located in Nova Scotia, 2 km off the Trans-Canada Highway (exit 23) at 105-109 Acheron Court in the Stellarton Industrial Park, Pictou County. Five buildings (Fig. 1) total 4000 m², which include 375 m² of laboratory space and 120 m² of office space. Free parking is available at the gate.

Most of the core is stored in standard 5 ft. long wooden boxes or trays that have capacities of 15 to 25 feet of core, depending on the core diameter, each of which may weigh in the 15-30 kg range. Boxes of core are stored on custom-made wooden pallets, which are then stacked in rows in the

storage areas. The storage areas only have basic lighting and are unheated. As needed, individual pallets are retrieved from storage and transferred by fork-lift to the core examination labs, where the core boxes may be laid out for viewing, using benches, portable stands, or the floor. A large paved yard also serves as a core box layout area during good weather. The Core Library is equipped with a binocular microscope, a portable UV light, weigh scales, core-splitters and diamond saws.

A small reference library area is available with tables, chairs and a microfiche reader-printer, available for the use of both clients and staff. All non-confidential Assessment Reports and all open files are available on microfiche, and paper copies of many reports, papers, maps and other mineral-related NSDNR publications are also available for reference.

Holdings and New Acquisitions in 2006

Total core in storage in all locations at the end of 2006 was approximately 650 000 m, representing approximately 7500 holes drilled throughout Nova Scotia. In addition to core, the Core Library maintains a set of drill cuttings (chips) from many of the wells drilled for oil and gas in Nova Scotia and its offshore areas. A variety of different types of samples and sample collections are also stored in Core Library facilities, ranging from materials collected in the field by staff, such as geochemical samples, rock slabs and till samples, to collections of soil and rock samples donated by exploration companies.

In 2006, 784.5 m of drill core from 10 mineral exploration holes and 69 vials (5 m samples) of drill cuttings from one wildcat hydrocarbon well were received at the Core Library. The vials of drill cutting were obtained from a 1502 m well drilled for Consultants A.G.R.E.N. Canada Inc near Kennetcook, Hants County, in 1991-92, and the core was drilled at two locations in Colchester County. Avalon Ventures Limited drilled 556 m in



Figure 1. Photograph of some of the buildings that house the department's Drill Core Library in Stellarton, Pictou County.

9 holes at Mount Thom in 2004 and Canstar Resources Inc recovered 228.5 m from one hole near Riversdale in 2006.

Activity

Clients include private sector geologists working in the mineral exploration and development sectors, or the oil and gas sector, as well as geologists with the Geological Survey of Canada and NSDNR (Mineral Resources Branch) and prospectors. As is frequently the case, activity levels were unpredictable and variable, with the busiest period being mid-May to the end of June.

Core Library Database

The Drill Core Database provides information on all drill core that the Core Library has in its collection, including operational data such as the storage location and number of boxes per hole.

The database can be searched by single or multiple fields, for example by place name, company name, hole number, map sheet or year. The database is updated continually and at the end of December 2006 it contained 7500 records. It is not yet available on-line until it is, queries should be directed to the Core Library geologist.