

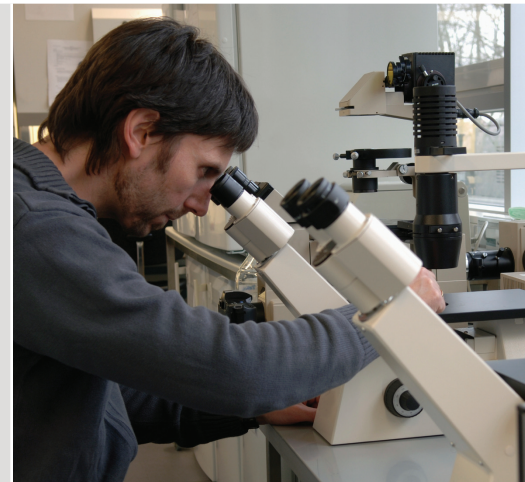


National Energy
Board

Office national
de l'énergie

STUDYING AND SAMPLING Well Materials From Frontier Wells

National Energy Board
January 2011



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Introduction

This document is intended to provide guidance to individuals and companies who have a need to sample well materials that are under the regulatory authority of the National Energy Board (NEB). This guidance is intended to provide an applicant with sufficient information to complete applications in order to sample well materials.

Terms

Facility

the Core and Sample Repository – Geological Survey of Canada in Calgary, Alberta or the Geoscience Research Centre – Canada-Nova Scotia Offshore Petroleum Board in Dartmouth, Nova Scotia

Frontier Lands

lands in the Northwest Territories, Nunavut, Sable Island and submarine areas located outside of a province in the internal waters, territorial sea or the continental shelf of Canada for which the Government of Canada has the right to dispose of or exploit petroleum resources

Privileged Information

information that is privileged and must not be knowingly disclosed without the consent in writing of the person providing it in accordance with section 101 of the Canada Petroleum Resources Act (CPRA). The term has similar meaning to the industry term “confidential”

Sampling

refers to the process of acquiring portions of the well materials stored at a Facility

Study

refers to the proposed technical examination of portions of Well Materials

Well Materials

refers to materials recovered from wells or the seabed including drill cuttings, conventional and sidewall cores and well fluids that are stored in a Facility

Well Operator

Frontier lands include the Northwest Territories, Nunavut, Sable Island and submarine areas located outside of a province in the internal waters, territorial sea or the continental shelf of Canada. Eastern offshore submarine areas are regulated by C-NLOPB and CNSOPB.

Legislative Authority

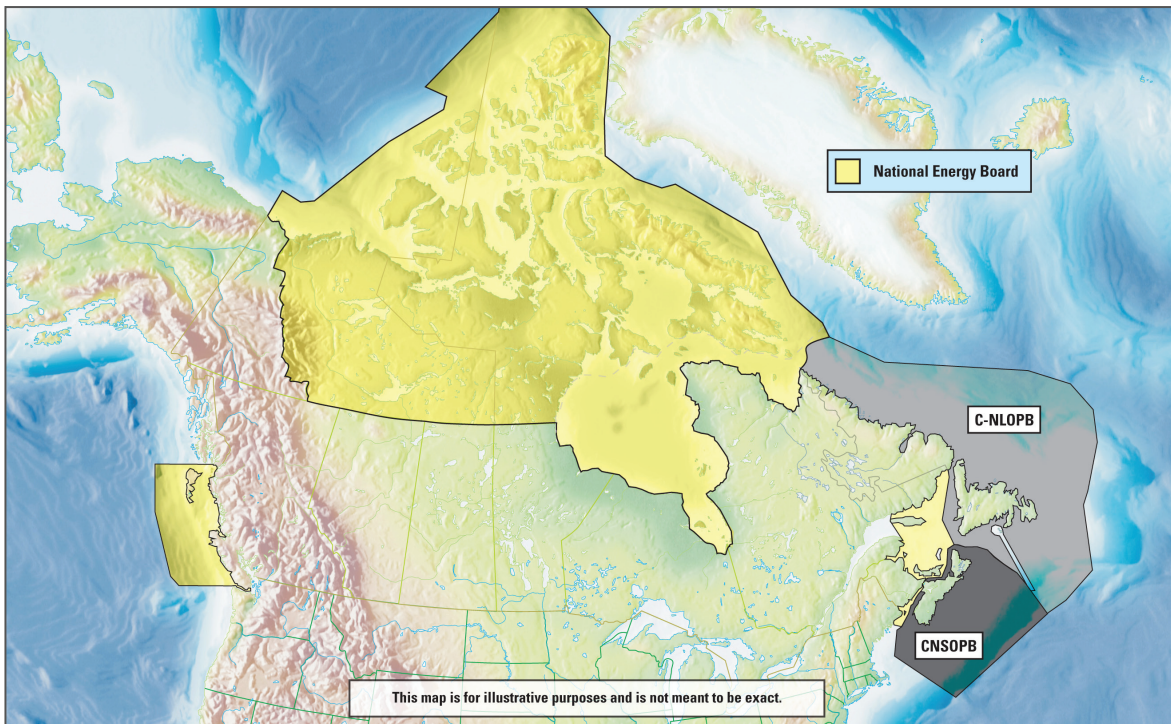
Under the Canada Oil and Gas Operations Act (COGOA) and the Canada Petroleum Resources Act (CPRA), the National Energy Board (NEB) regulates oil and gas exploration and related activities on frontier lands not subject to federal/provincial accords. Well operators are required by sections 53 to 55 of Canada Oil and Gas Drilling and Production Regulations (COGDPR) to collect and submit material from wells they drill.

Materials taken from wells drilled in the Northwest Territories, Beaufort Sea, Nunavut, Arctic Islands and West Coast offshore are located at the Geological Survey of Canada (GSC) facility in Calgary. Similar materials from the Hudson Bay, Eastern Arctic offshore, Gulf of St. Lawrence and Bay of Fundy are stored at the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) Geoscience Research Centre facility in Dartmouth, Nova Scotia.

Well materials from the Newfoundland offshore area are located at the Core Storage and Research Centre in St. John's, Newfoundland and are managed by the Canada-Newfoundland Offshore Petroleum Board (C-NLOPB).

The Yukon Territory manages its own authorizations of oil and gas activities but stores its samples at the Geological Survey of Canada facility in Calgary.

Frontier lands include the Northwest Territories, Nunavut, Sable Island and submarine areas located outside of a province in the internal waters, territorial sea or the continental shelf of Canada. Eastern offshore submarine areas are regulated by C-NLOPB and CNSOPB.



Applications to Examine or Study Well Materials

A written application to acquire sample portions of non-privileged well materials for the purpose of conducting studies must be made to the Team Leader, Conservation of Resources (TL-CoR) at the NEB (see Contact Information). A copy of the application should also be sent to the appropriate storage facility in Calgary or Dartmouth. An application to sample privileged well materials will also require written authorization from the well operator to examine or study and that letter of permission should be included in the application. Sampling is only permitted on core and unwashed cuttings. Washed cuttings are not allowed to be sampled.

Once an application is deemed complete, it may be subject to an assessment period for up to 21 days prior to a decision whether an authorization should be granted.

Persons or companies may visually examine non-privileged well materials without an authorization. For viewing privileged materials, a written authorization from the well operator should be submitted to the facility manager. Contact the appropriate facility to book an appointment. The NEB does not need an application in these cases.

The written application should contain a description of the proposed study including:

1. expected commencement and study completion dates;
2. well names and unique well identifiers (UWI);
3. proposed intervals (list in both Metric and Imperial Units)
4. a full description of analytical techniques;
5. proposed material quantities per interval;
6. indicate whether the study will be destructive or non-destructive;
7. a list of persons or companies, including their addresses, who will be performing each analysis; and
8. the company name, name of the applicant or responsible person, telephone number, e-mail and physical address.

The NEB expects applicants to utilize Canadian facilities prior to consideration of non-Canadian laboratories. If the applicant expects NEB well materials to be transported outside of Canada, a separate authorization should be requested at the time of application.

Authorizations from the National Energy Board

Well materials are stored, administered and made publicly accessible in an orderly manner to ensure optimal conservation. Upon receipt of an application, the TL-CoR will determine the following:

1. the current condition and quantity of existing well materials;
2. whether intervals have been previously studied using the proposed or similar techniques;
3. whether previous studies with similar techniques are non-privileged; and
4. whether sufficient geoscientific and interpretative value can be gained by the proposed study.

Authorizations may then be issued subject to various conditions. Listed below are some conditions that could be attached.

- acquisition of a “Record of Examination and Loan” form prior to study commencement from the appropriate facility and completion of the form at the end of the sampling session(s);
- sample extraction to be done under the supervision of a facility supervisor;
- actual location of extractions done with approval of a facility supervisor;
- for unwashed drill cuttings, a maximum of 20 grams per bagged interval may be permitted, larger quantities may be permitted for special tests;
- When less than 30 grams of unwashed material remains in a sample bag, only innovative technology may be considered for analysis approval
- for conventional cores, a plug sample every 30 centimetres (maximum volume - 16 cubic centimetres) and plug diameter of no more than twenty-five (25) per cent of the original core diameter may be allowed. Slab or full diameter sampling may be permitted if clear scientific justification is provided;
- a set of thin sections, macro and microfossils and/or palynomorphic slides when prepared for the study are to be returned to the appropriate facility;
- processing of palynology samples requires: 1) one slide of oxidized, stained, +10 micron material mounted on a 40 x 20 millimetre (mm) cover slide. The sieve pore size must be 10 microns absolute, 2) when and only if there is sufficient material, mounted sieve splits (e.g. +20 and -20 fractions) should be made from the residue and 3) all unmounted residue, including the +10 micron material that has passed through the coarser sieves, must be preserved in properly labeled vials and returned to the facility;
- all materials not destroyed in the study must be returned within 30 days of the study’s completion date with proper labeling that includes the well name, UWI, and depth. If materials are contaminated, these materials must be appropriately disposed of under the hazardous waste disposal requirements of the jurisdiction where disposal is to occur; and/or
- materials are subject to immediate return on demand by the NEB.

After consideration of the application, a written authorization to proceed with the study under certain conditions may be issued by the TL-CoR. If not, a written reason will be issued to the applicant by the TL-CoR.

Report Submissions

Submission of a final report is required within six (6) months of completion of the study. One paper copy and one digital copy must be sent to the attention of the TL-CoR, NEB. A second paper copy must be sent to the appropriate storage facility. The report should include:

1. an introduction containing the purpose of the study and any background information;
2. a summary of testing/analysis procedures used;
3. a list of persons and companies that performed the tests;
4. a description of data that is sufficient to allow others to confirm or examine it;
5. an interpretation of results and implications for future work; and
6. appendices that includes raw data, graphs, plots, logs, photographs or images as well as before and after images of samples undergoing destructive testing.

If the submission of a final report exceeds one (1) year, written status updates are required quarterly.

Final reports are privileged under Section 101 of the CPRA. These reports will be made available to the public after the expiration of the applicable period of privilege set out in the CPRA.

Any data or analysis obtained from a study that is still considered privileged will only be disclosed with written permission of the author.



Contact Information

Application requests in writing to study and sample well materials located on frontier lands regulated by the NEB should be addressed to:

Team Leader

Conservation of Resources
National Energy Board
444 Seventh Avenue SW
Calgary Alberta T2P 0X8
Telephone: 403-292-4800
Facsimile: 403-292-5503

For NEB well materials stored at the GSC-Calgary facility, a copy of the application is required to be mailed or faxed to:

Core and Sample Repository

Geological Survey of Canada – Calgary
3303 – 33 Street NW
Calgary Alberta T2L 2A7
Telephone: 403-292-7030
Facsimile: 403-292-5377

For NEB well materials stored at the C-NSOPB-Dartmouth facility, a copy of the application is required to be mailed or faxed to:

Supervisor, Geoscience Research Centre

Canada-Nova Scotia Offshore Petroleum Board
Suite 27, 201 Brownlee Ave
Dartmouth, Nova Scotia B3B 1W2
Telephone: 902-468-3994
Facsimile: 902-468-4584

Information concerning requests on sampling well materials from wells regulated by the Yukon Territory, Canada-Nova Scotia Offshore Petroleum Board or the Canada-Newfoundland Offshore Petroleum Board can be directed to the following sites:

Manager, Resources Assessments and Outreach

Yukon Geological Survey
Box 2703 (K-10)
Whitehorse YT Y1A 2C6
Telephone: 867-667-8508
Facsimile: 867-393-6232

Supervisor, Geoscience Research Centre

Canada-Nova Scotia Offshore Petroleum Board
Suite 27, 201 Brownlee Ave
Dartmouth, Nova Scotia B3B 1W2
Telephone: 902-468-3994
Facsimile: 902-468-4584

Supervisor, Core Storage and Research Centre

Canada-Newfoundland Offshore Petroleum Board
30-32 Duffy Place
O'Leary Industrial Park
St. John's Newfoundland A1B 4M5
Telephone: 709-778-1500
Facsimile: 709-778-1432

