

Regional Assessment of Oil and Gas Exploratory Drilling in the Canada-Nova Scotia Offshore Area

Offshore Oil and Gas Exploratory Drilling Activities

Frequently Asked Questions (FAQ)

1. What is offshore exploratory drilling?

Exploratory drilling is the process of drilling wells to find out if oil or gas is present beneath the sea floor and, if so, to understand its size and characteristics. It is the only way to confirm whether oil or gas resources exist in a specific location.

2. Why is exploratory drilling necessary?

Geophysical surveys (surveys to understand subsurface conditions) can suggest where oil or gas might be located, but drilling is required to confirm it.

3. What equipment is used for offshore drilling?

Exploratory wells are drilled using large offshore drilling units, such as:

- Semi-submersible drilling rigs (a mobile offshore unit designed for deepwater exploration and development),
- Drill ships (a maritime vessel specially designed for exploratory offshore drilling of new oil and gas wells),
- Jack-up rigs (a type of mobile, self-elevating offshore drilling platform used mainly for shallow-water oil and gas exploration).

4. What are the activities involved in exploratory drilling ?

It can take 18 to 24 months to plan an offshore exploration well. During this time, safety and environmental risks are regularly reviewed, and steps are taken to manage or prevent them.

- Seabed surveys are conducted using remotely operated vehicles (ROVs) or sonar to inspect the seafloor. Drilling an offshore well involves drilling in stages, installing steel pipe and safety equipment, and using cement to seal each section.
- A safety zone is kept around the rig, and special systems control pressure and prevent spills.
- Once drilling is complete, the well is ready to produce oil or natural gas. If the well does not contain large quantities of oil and natural gas, it is sealed and permanently closed with regulatory approval.

5. How long does offshore exploratory drilling take?

Drilling an exploratory well typically takes 1-4 months. The well is drilled in stages, and activities continue as data are collected and evaluated.

6. Does exploratory drilling mean oil production will happen right away?

No. Even if oil or gas is found, moving to production can take many years and often over a decade. Any future development would require detailed studies, environmental assessments, and separate regulatory approvals.

7. How are environmental considerations addressed?

Exploratory drilling projects must undergo environmental assessments and comply with strict regulations. Federal and provincial regulators (such as the Canada Energy Regulator and Canada Nova Scotia Offshore Regulator) oversee these processes to make sure projects are carried out safely and protect the environment, including marine habitats, migrating birds, and proper waste handling.

8. Does exploratory drilling guarantee future offshore development?

No. Exploration may or may not lead to development. Whether a discovery is developed depends on many factors, including resource size, location, economics, and regulatory requirements.

9. Can the Canada-Nova Scotia Offshore Energy Regulator do regional assessments?

Yes, under the *Accord Acts* there is a provision allowing the CNSOER to conduct regional assessments for offshore energy on the effects of any existing or future work or activity. There have been no RAs prepared for offshore petroleum-related activities in the Nova Scotia offshore area but the CNSOER is currently conducting a separate regional assessment for Offshore Wind Site Assessment Activities.