

## **Environmental Effects Monitoring - Background**

Environmental effects monitoring (EEM) is the monitoring of the receiving environment to determine the effects of an industrial activity. In the Canada-Newfoundland and Labrador Offshore Area, EEM has been principally conducted for development-drilling and production operations, due to the greater variety and volumes of their regulated discharges and their longer-term presence offshore, compared to exploration installations. EEM surveys begin during the first full year of offshore development drilling and continue annually for at least two years, becoming biennial thereafter. These surveys have been conducted in the Newfoundland and Labrador Offshore for the Hibernia field since 1998, the Terra Nova field since 2000, for the White Rose field since 2004 and for the Hebron field since 2018. Each field has had at least one predevelopment EEM survey to inform its EEM program design: Hibernia in 1994, Terra Nova in 1997, White Rose in 2000, with supplementary information collected in 2003 and Hebron in 2014 and 2015.

Newfoundland and Labrador EEM programs generally comprise the sampling of marine sediments and one or more fishery species, both near the installations (typically over a sampling grid spanning some 10-20 km) and at more distant control sites. Biological and chemical analyses are performed on sediments, chemical analysis on water and fish samples are analyzed for the presence of taint, for chemical uptake and for biochemical health indicators. A detailed analytical report is submitted to the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) following each survey year, and C-NLOPB staff review the results in consultation with technical specialists from federal and provincial fisheries and environment departments.

All documents are available for viewing in hard copy at the C-NLOPB offices located at 240 Waterford Bridge Road, The Tower Corporate Campus – West Campus Hall, Suite 7100, St. John's, Newfoundland and Labrador, and may also be available by contacting the appropriate operator. In accordance with privacy legislation, personal information has been blacked out from all EEM documents. Links to electronic copies of summary reports (Volume 1) for each survey, where they are available, are also provided. Electronic and printed copies of the data (Volume 2) are available upon request.