



# Canadian Oil & Gas Capabilities

Canada's expertise in the oil and gas field is extensive and the industry continues to make major technological and manufacturing advances. In the manufacturing and marketing of its equipment, dependability and good service have been the key to Canada's success. The Canadian suppliers of oil and gas technologies produce a wide variety of equipment and services for use in exploring for oil and gas, in drilling and servicing wells, in producing and processing oil and gas in the field, and in transporting oil and gas. The industry encompasses manufacturers of geophysical prospecting equipment, drilling rigs and ancillary tools, pumping, cementing and well-fracturing units, dehydrators, separators, treaters and other field-processing components such as lifeboat stations, flare booms, oil well fire-fighting and safety training. It includes pipeline equipment and services. It also includes offshore equipment and services such as wellhead modules, topside mounted structures, etc.

Specific areas where Canada is acknowledged as a strong equipment supplier include exploration, drilling, dehydration, and secondary and tertiary recovery; innovations in reservoir imaging, well simulation and production optimization. Canada has also developed technology making it possible to safely develop sour gas reservoirs by recovering almost 99% of sulphur content.

Canadian-built pipelines carry natural gas, crude oil, natural gas liquids and refined products through the world's largest network of pipeline infrastructure, with more than half a million kilometers of underground pipeline. The companies that built and maintain these pipelines are exporting their expertise worldwide, including specialized services and equipment for the construction, operation, testing and inspection of pipelines.

Bordered by three oceans, with a continental shelf approaching four million square-kilometers, the Canadian oil and gas industry has led the way in developing and providing equipment and techniques capable of operating anywhere in the world under the most difficult conditions. Canadians are world leaders in technologies for offshore activity and cold weather operations and equipment. Canada also has expertise in processing heavy oil and upgrading oil sands and bitumen into sweet synthetic crude. This expertise and specialized knowledge developed in meeting the challenges of Canada's difficult terrain is now available for export.

Canadian manufacturers also produce and export a broad range of machinery and equipment that is required by the industries engaged in the processing and production phases of the chemical and petrochemical industries. In addition, Canadian consultants and construction companies have the capability for complete petroleum refinery, refinery rehabilitation, petrochemical and chemical projects, including feasibility studies, process equipment packaged systems, design and procurement.

In developing its oil and gas resources, Canada has also taken precautions along the way to protect the natural surroundings and minimize negative impacts on the environment by developing strong environmental guidelines governing the design of new facilities. Industry has developed a broad range of environmental protection technologies. The Canadian petroleum industry is looking at CO<sub>2</sub> enhanced oil recovery and coal bed methane to produce oil and gas while sequestering CO<sub>2</sub>. Canadian directional drilling expertise makes it possible to drill many wells from a single site, reducing the impact on rural landscapes. The drilling industry has also developed new environmentally non-toxic muds to reduce waste production and minimize fresh water requirements. Canadian expertise also includes gas leak detection, geodesic and photogrammetric surveys, precise gravity surveys, mapping, and marine seismic services. These technologies and expertise are available for export to help other countries develop their energy resources while pursuing environmentally sustainable economic development policies.

The Canadian Oil and Gas industry has excellent capabilities in the areas of technology, product quality and after-sales service. With a solid record of equipment and service performance, Canadian firms have gained and sustained markets from all around the world based on their reputation for supplying effective, safe and reliable high-quality products. For more information, visit [www.strategis.ic.gc.ca](http://www.strategis.ic.gc.ca).