

doc
CA1
EA
2002C17
ENG

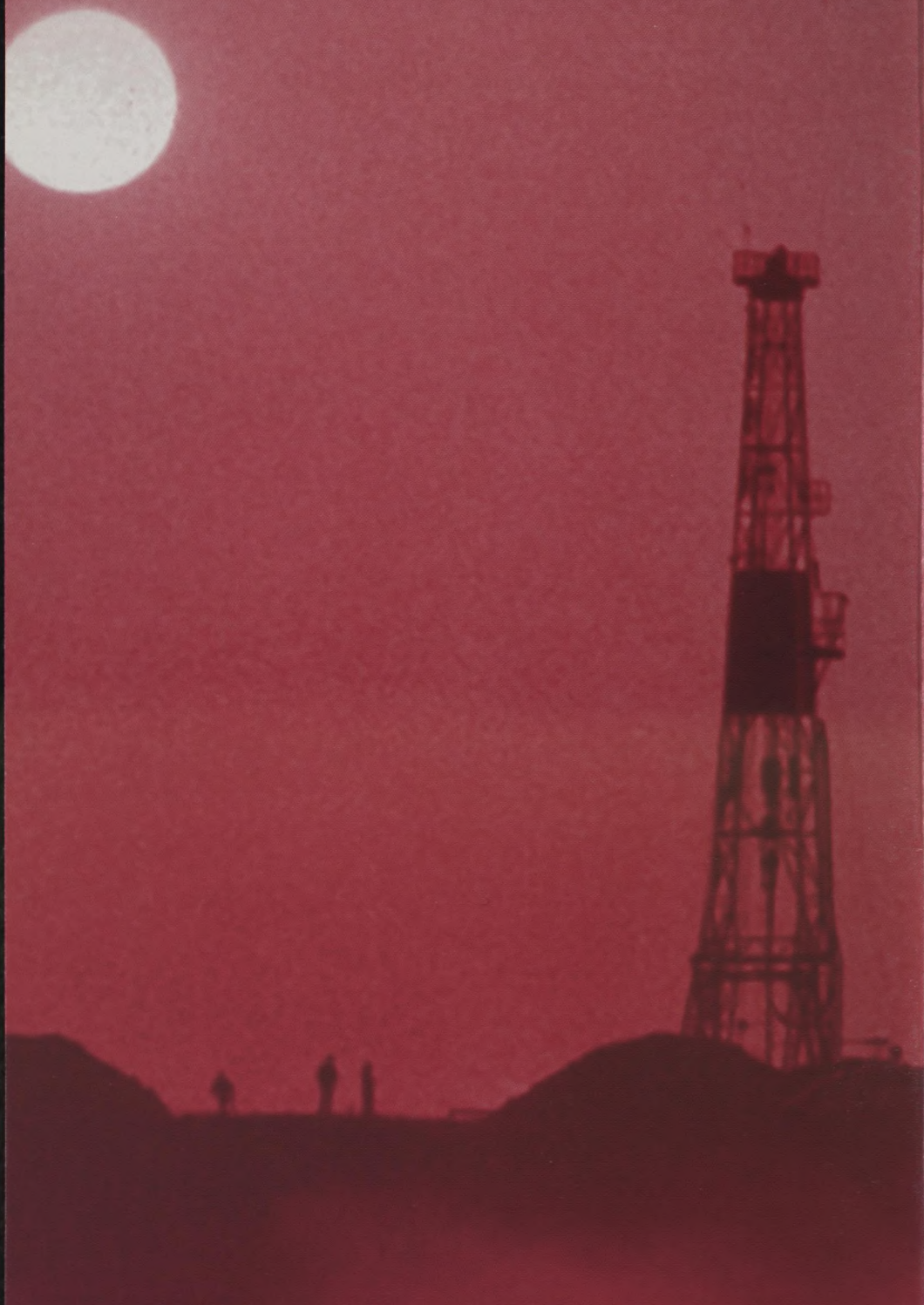
Canada

Serving the
Oil and Gas Industries



Government
of Canada

Gouvernement
du Canada



Produced jointly by the Department of Foreign Affairs and International Trade and Industry Canada.

.b3642781(E)

INDUSTRY OVERVIEW

Dept. of Foreign Affairs
Min. des Affaires Étrangères

JUN 8 1993

CANADIAN OIL AND GAS EQUIPMENT AND SERVICES INDUSTRY

Exploration. Production. Processing. Transportation.

These key activities are performed by experienced professionals making up the Canadian oil and gas equipment and services industry. They are in action across Canada and the world.

The oil and gas sector has bolstered Canada's economy for several decades providing a solid domestic foundation for its equipment and services industry. This industry is an important segment of Canada's economy in terms of

investment, trade, income, and employment, and accounts for 1.3% of Canada's gross domestic product. The equipment and services industry is made up of 2300 enterprises that employ over 55 000 people.

Canada can provide virtually everything needed by the world's oil and gas industry!

Canadian firms respond to strong international competition by fine-tuning their technologies, skills and knowledge. Canada presently holds a 3.5% share of the world market, and is the sixth largest exporter in the world. Its industry is recognized as a leader in a number of specialized recovery and processing products. Canadian exports are expected to increase by 12-13% annually.

Foreign markets are key to this sector's growth: most Canadian companies export at least 20% of their production. Canadian companies are successful in export markets due to the Canadian reputation for supplying



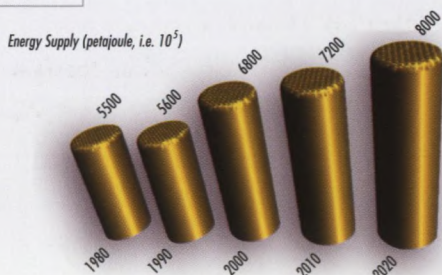
1

65-243-491

effective, safe and reliable high-quality products and equipment. Canadian firms also have a solid reputation for developing advanced technologies in co-operation with key customers.

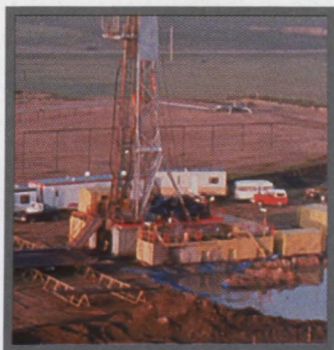
The oil and gas industry will continue to enjoy a strong presence in the Canadian economy as the demand for oil and gas continues to increase.

CANADA'S OIL AND GAS SUPPLY



Canada's National Oil Sands Task Force envisions a tripling of oil production from the oil sands in northern Alberta over the next 15 years. This vision implies a total cumulative investment of \$62

billion (\$34 billion already committed). Offshore Atlantic Canada is firmly established with a bright future in Canada's petroleum sector, and is attracting the attention of world-class players in the oil and gas industry. Expenditures over the next 15 years are expected to exceed \$2 billion annually in exploration and development costs. Also noteworthy is the renewed interest in oil and gas production in Canada's northern regions. These developments create a substantial market for Canada's oil and gas equipment and services sector.



OIL AND GAS EQUIPMENT

Canada is a world leader in the supply of oil and gas equipment, particularly of:

- ▶ ***geophysical prospecting equipment;***
- ▶ ***drilling rigs and ancillary tools;***
- ▶ ***pumping, cementing and well-fracturing units;***
- ▶ ***field-processing equipment;***
- ▶ ***pipeline equipment;***
- ▶ ***instrumentation and control systems; and***
- ▶ ***fabrication of offshore/marine equipment such as topsides modules, rig platforms, communication equipment and other structures (e.g. lifeboat stations, flare booms, etc).***

Canadian pipeline equipment companies are world contenders. They have outstanding expertise, some of the best technologies and operating procedures, and have been chosen to supply equipment and services for many international pipeline projects.



SERVICES

Canada's recognized world-class services include:

- ▶ *pre-drilling services, including geophysical contractors;*
- ▶ *drilling services, including mud, cement, logging, testing, coring, and fishing services;*
- ▶ *well-completion services, including perforating and stimulating services, work-over services including coiled tubing;*
- ▶ *wireline services, including placing of down-hole instrumentation;*
- ▶ *logistics management, including tanker operations, supply vessels and offshore helicopter services;*
- ▶ *offshore engineering and project management; and*
- ▶ *other services such as firefighting and diving.*



CANADIAN EXPORTS

Canadian exports in the oil and gas sector grew significantly in recent years. Since 1993, exports realized annual growth rates between 13% and 15%, reaching \$3 billion in 1998, \$3.3 billion in 1999, and about \$4 billion in 2001.

SHARE OF WORLD MARKET

Brazil	0.50%
Germany	1.01%
Holland	2.51%
Canada	3.52%
Italy	5.03%
Norway	7.04%
France	9.05%
UK	11.06%
US	60.30%



Since 1998 Canada has ranked sixth in the world in exporting oil and gas equipment and services.

Canada's Exports Equipment and Services

The Canadian oil and gas equipment and services industry holds its place in the global market due to quality and expertise. The Canadian industry maintains its share in the U.S. market in the face of significant competition and is substantially increasing exports to other countries.

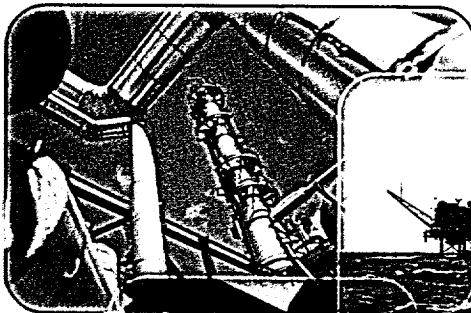
Canadian \$ (billions)



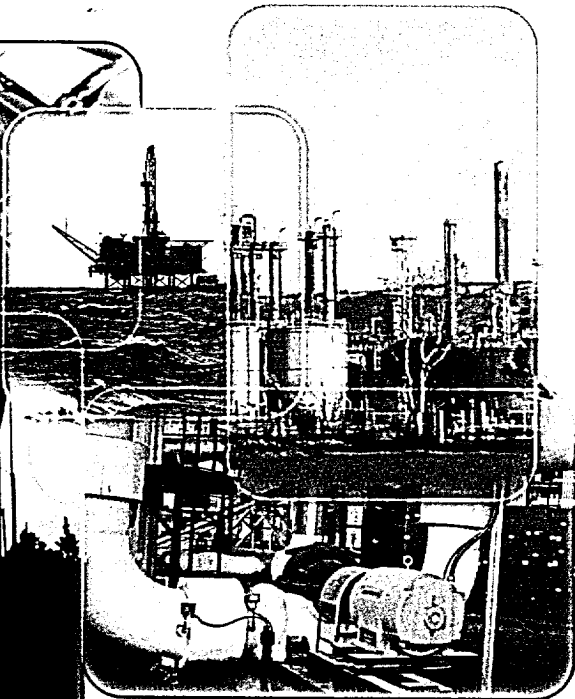
PRODUCT INFORMATION

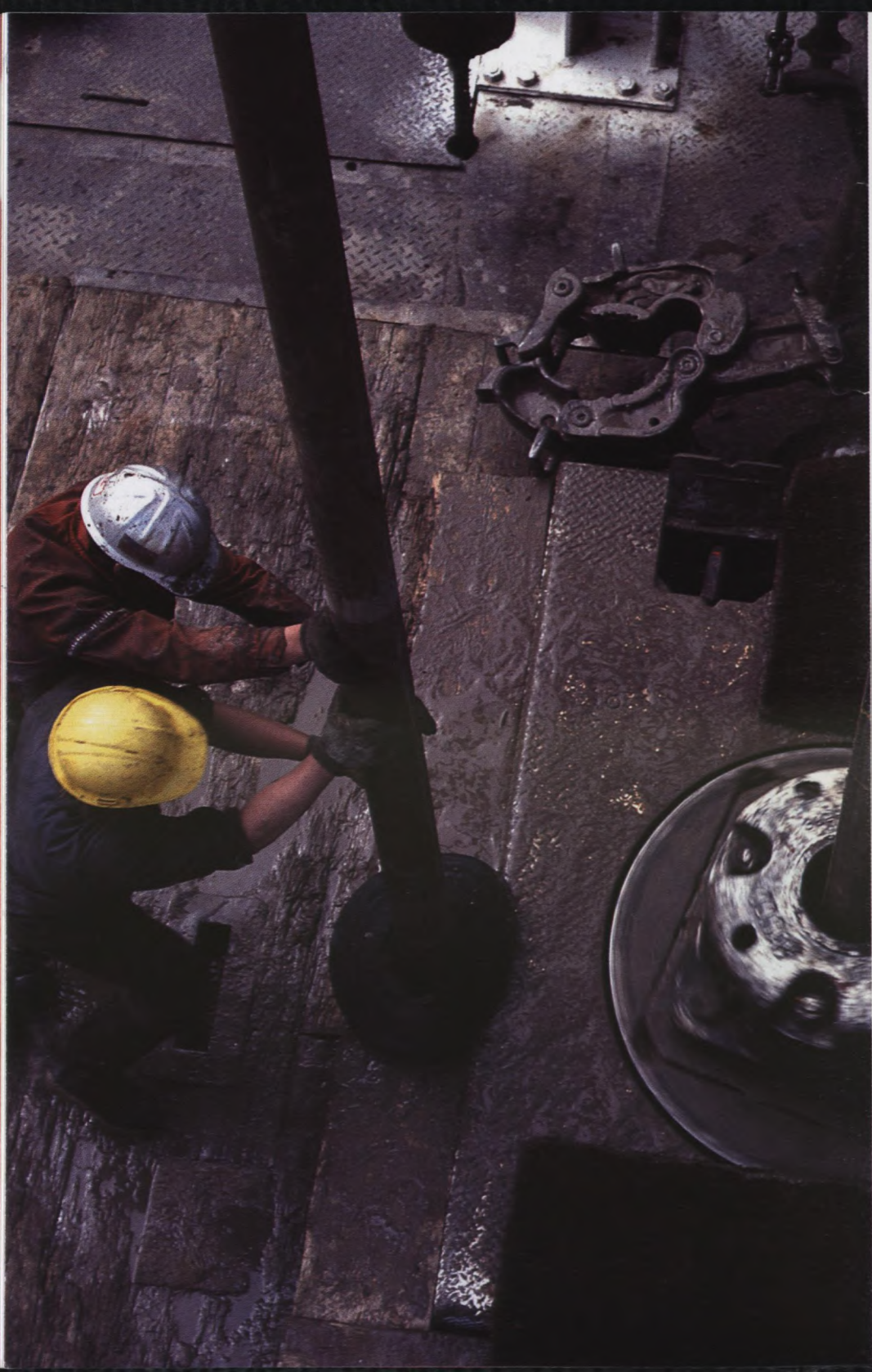
Oil and gas equipment and services is a large and complex sector involving a wide range of products. Product-specific information can be found at:

www.strategis.ic.gc.ca/petroleum



Canada's goods and services have applications throughout the global oil and gas industry.





GLOBAL FORECAST

The future looks promising for Canada's oil and gas industry. Canadian exports are predicted to grow 12-13% annually, while global demand for energy is expected to grow 9% annually.

The world consumed the equivalent of 200 million barrels of oil per day in 2000. By 2005, the world's energy needs will be 50% greater than they were in 1990. Crude oil and natural gas will still supply 60% of the world's total energy needs.

Capital spending on exploration and production equipment and services is expected to increase in line with global demand for oil and gas. This spending by international oil and gas producers is predicted to be in the range of \$240 to \$260 billion annually. Suppliers of equipment for oil and gas exploration, production, drilling, processing, transportation and plant systems can expect new business opportunities, as can Canadian consulting engineering firms.

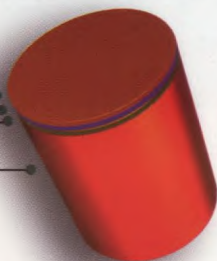


CANADIAN FORECAST

Oil sands (a mixture of bitumen, sand, water and clay) will be the target of much of the future exploitation in Canada. Once separated, bitumen is upgraded into a high-quality oil called "synthetic crude".

WORLD BITUMEN RESOURCES

US 0.03%
Russia 0.35%
Nigeria 0.70%
Canada 98.92%



Oil sands are a tremendous Canadian resource and easily rank as the largest of their kind in the world. Canada's oil sands hold almost 99% of the world's bitumen supply. Initial established reserves are



estimated to be 300 billion barrels-comparable to the conventional oil reserves of Saudi Arabia.

Based on publicly announced development plans for 1996-2010, nearly \$34 billion worth of projects are committed to expand production for the oil sands.

Activities include:

- ▶ **expansion of existing integrated surface-mining and upgrading plants;**
- ▶ **new mining and upgrading facilities;**
- ▶ **in situ and primary production projects;**
- ▶ **new pipelines and expansion of existing pipelines; and**
- ▶ **co-generation plants and other related facilities.**

In Offshore Newfoundland, the Hibernia project continues to set oil production records. The Terra Nova project began producing in January 2002. The Grand Banks' harsh environment required construction of a technically unique

A promising future in Atlantic Canada's oil and gas sector

floating production, storage and off-loading system (FPSO), the world's first offshore oil platform able to disconnect quickly from its wells. White Rose, the third oil project offshore

Newfoundland, has received regulatory approval to proceed and is expected to begin production of 100,000 barrels of oil per day in 2004.

In Offshore Nova Scotia, the activity has centred on natural gas production. The Sable Offshore Energy Project has become a great success, with development of its second phase continuing. The Deep Panuke Project is proceeding as Nova Scotia's next development, and the pace of further exploration is gaining momentum.

In both provinces there is a trend towards more deepwater exploration and Canadian companies are rapidly developing expertise in this area. The major oil companies

anticipate a new oil project to commence every two to three years throughout the next two decades, resulting in production of 580,000 barrels of oil equivalent per day. Should this level of production be achieved, it could represent 50% of Canada's production of light crude oil.



In natural gas, Nova Scotia's production is expected to quadruple over the next 10 to 15 years.

EXPORT FOCUS

CANADA'S EXPORTS

US 55%

Other 45%



Canada's main market for the oil and gas industry is the United States, although exports are rising to other countries including: Mexico, Venezuela, Algeria, China, Norway, Brazil and the UK. About 55% of Canada's oil and gas equipment and

services exports go to the highly competitive market in the United States.

Canadian oil and gas equipment and services companies are establishing business operations actively around the world.

As firms from developed countries establish themselves in emerging markets, Canadian companies may respond by forming alliances.

RESEARCH AND DEVELOPMENT

Research and Development (R&D) initiatives are integral to Canadian companies striving to compete internationally in market niches. Canadian companies have dedicated a large portion of their R&D efforts towards reducing air emissions particularly with regard to oil sands projects. New technology and more



efficient operations have greatly reduced emissions per unit of production. Some of the R&D thrusts include:

- ▶ ***implementing new, energy-efficient technologies in both existing and new operations;***
- ▶ ***capturing vented methane and reducing the flaring of solution gas;***
- ▶ ***developing alternative and renewable sources of energy; supporting environmental and economic research; and***
- ▶ ***in the offshore area, oil companies have concentrated their R & D efforts on adapting to the unique and harsh environment of the Atlantic Ocean.***

A list of Canadian R&D facilities is available at:

www.strategis.ic.gc.ca/SSG/po01182e.html

CANADIAN STRENGTHS

Canadian companies are well placed to participate in emerging overseas opportunities. Just a few of the key Canadian products and services in the oil and gas industry that enjoy an international competitive advantage are:

- ▶ ***advanced drilling technologies***, e.g. under-balanced and horizontal technologies, offshore drilling modules, slim-hole drilling and winterized drilling rigs;



- ▶ **specialized equipment for extraction/processing**, e.g. equipment for wells experiencing declining production rates and specialized equipment for extracting oil sands;
- ▶ **treatment of sour gas**, e.g. gathering and treatment facilities for sour gas;
- ▶ **enhanced recovery techniques**, e.g. computer-controlled automatic coring devices and automated pipe-handling systems; and
- ▶ **world-class training facilities**, e.g. in advanced extraction techniques, in offshore well control techniques, full bridge ship simulation, ballast control, and offshore safety.



GLOBAL PETROLEUM SHOW 2002

About 50,000 visitors to the Global Petroleum Show will review world-class technology in the fields of exploration, production and transportation of oil and natural gas.

DATE: June 11-13, 2002, Calgary, Alberta

WEB SITE: www.petroleumshow.com

NEWFOUNDLAND OCEAN INDUSTRIES ASSOCIATION (NOIA) — ANNUAL INTERNATIONAL PETROLEUM CONFERENCE 2002

The annual trade show will be supported by conference sessions dealing with a wide range of topics concerning the industry.

DATE: June 17-21, 2002, St. John's, Newfoundland

WEB SITE: www.noianet.com

OFFSHORE NEWFOUNDLAND PETROLEUM SHOW 2002

Held in conjunction with the 18th Annual NOIA Conference, the Offshore Newfoundland Petroleum Show will bring together buyers and sellers from both sides of the Atlantic.

DATE: June 19-20, 2002, St. John's, Newfoundland

WEB SITE: www.petroleumshow.com

OIL SANDS TRADE SHOW AND CONFERENCE 2002

This event will showcase the latest technologies and innovations in the oil sands industry and is held in conjunction with the Canadian Heavy Oil Association Conference.

DATE: September 4-5, 2002, Fort McMurray, Alberta

WEB SITE: www.petroleumshow.com

INTERNATIONAL PIPELINE EXPOSITION

This event features the latest technologies for pipelines.

DATE: September 29-October 4, 2002, Calgary, Alberta

WEB SITE: www.pipelineexpositions.com

NOVA SCOTIA OIL AND GAS TRADE SHOW AND CONFERENCE

The Conference's focus is on Nova Scotia's potential in the oil and gas industry, and includes annual technical seminars.

DATE: October 7-10, 2002, Halifax, Nova Scotia

WEB SITE: www.otans.ns.ca

GO-EXPO: GAS AND OIL EXPOSITION AND CANADIAN INTERNATIONAL PETROLEUM CONFERENCE

GO-EXPO showcases the latest innovations and advanced technologies available in the industry and will be held in conjunction with the Petroleum Society's annual Conference.

DATE: June 10-12, 2003, Calgary, Alberta

WEB SITE: www.petroleumshow.com

SEE CANADIAN COMPANIES AT

OFFSHORE TECHNOLOGY CONFERENCE 2002

DATE: May 6-9, 2002, Houston, Texas

WEB SITE: www.otcnet.org

OFFSHORE NORTHERN SEAS

DATE: August 27-30, 2002, Stavanger, Norway

WEB SITE: www.ons.no

WORLD PETROLEUM CONGRESS 2002

DATE: September 1-5, 2002, Rio de Janeiro, Brazil

WEB SITE: www.world-petroleum.org

THE 14TH OFFSHORE SOUTH EAST ASIA CONFERENCE & EXHIBITION (OSEA 2002)

DATE: October 29-November 1, 2002, Singapore

WEB SITE: www.osea-asia.com

INDUSTRY ASSOCIATIONS

NEWFOUNDLAND OCEAN INDUSTRIES

ASSOCIATION (NOIA)

Atlantic Place, Suite 602
215 Water Street
St. John's, Newfoundland
A1C 6C9

Tel.: (709) 758-6610

Fax: (709) 758-6611

Web Site: www.noianet.com

NOIA is a body of some 460 organizations with a common interest in oil and gas industry development, both onshore and offshore.

NOIA's mission is to promote development of East Coast Canada's hydrocarbon resources and to facilitate its membership's participation in oil and gas industries. NOIA's membership includes oil and gas license-holders, supply and service companies, and government bodies and agencies. NOIA serves as an information hub for East Coast Canada's oil and gas industry, conducting research, providing daily industry bulletins to members, presenting conferences and seminars, and providing information briefs to government and industry decision-makers.

The NOIA website includes member profiles and a keyword search facility.

OFFSHORE/ONSHORE TECHNOLOGIES ASSOCIATION OF NOVA SCOTIA (OTANS)

1718 Argyle Street, Suite 400
Halifax, Nova Scotia
B3J 3N8

Tel: (902) 425-4774

Fax: (902) 484-4729

E Mail: otans@otans.com

Web Site: www.otans.com

Surging interest in Atlantic Canada's oil and natural gas industry is one reason why OTANS is Canada's largest petroleum supply and services association. With over 500 members, OTANS represents the expertise needed for oil and natural gas development worldwide. OTANS hosts the annual Canadian Offshore Resource Conference and Trade Show and the Great Offshore Picnic, the largest annual social event in the Atlantic Canadian Oil patch. Other services include trade missions, a daily news service focusing on issues of importance and advising governments on improving the business climate for exploration and development.

PETROLEUM SERVICES ASSOCIATION OF CANADA (PSAC)

800 6th Ave. SW, Suite 1150
Calgary, Alberta
T2P 3G3

Tel.: (403) 264-4195

Fax: (403) 263-7174

Web Site: www.psac.ca

PSAC is the national association of Canadian oilfield service, supply and manufacturing companies.

The Association's mission, through effective presentation to government, industry and the public, is to protect, promote and pursue the interests of its members and advocate standards, training, information dissemination and a code of practices. PSAC represents over 263 member companies, contracted almost exclusively to oil and gas exploration and production companies. Its membership provides a diverse range of services and equipment to the oil and gas industry.



The PSAC Web site offers valuable information concerning the oil and gas industry. An international segment includes a company directory for exporting companies, products and services, statistics and information, export advice and a list of consulting firms. The site is kept up-to-date and provides some of the latest media releases from the industry.

GOVERNMENT

ALBERTA ECONOMIC DEVELOPMENT

Web Site: www.alberta-canada.com

Links to explanatory information about Alberta's industry are found at this site.

DEPARTMENT OF FOREIGN AFFAIRS AND INTERNATIONAL TRADE

Web Site: www.infoexport.gc.ca

Information on Canada's exporting industries and government services.

INDUSTRY CANADA

Web Site: www.strategis.ic.gc.ca/petroleum

This site features a profile of the industry, including its main challenges and strategic direction, and the international environment.

NATIONAL ENERGY BOARD (NEB)

Web Site: www.neb.gc.ca

NEB promotes safety, environmental protection and economic efficiency pertaining to pipelines, energy development and trade. The site provides an overview of the energy industry including recent statistics.

NATURAL RESOURCES CANADA (NRCAN)

Web Site: www.nrcan.gc.ca

NRCAN specializes in energy, minerals and metals, forests and earth sciences. This site provides access to the latest economic, environmental and scientific information regarding energy in Canada.

NEWFOUNDLAND MINES AND ENERGY

Web Site: www.gov.nf.ca/mines&en

This site provides information on the latest events in the industry.

NOVA SCOTIA DEPARTMENT OF ENERGY

Web Site: www.gov.ns.ca/natr/energy

This site provides the latest news in the Nova Scotia industry, a reference library, employment and training opportunities and links to other useful sites.

SASKATCHEWAN ECONOMIC AND CO-OPERATIVE DEVELOPMENT

Web Site: www.gov.sk.ca/econdev

Includes industry sector profiles.

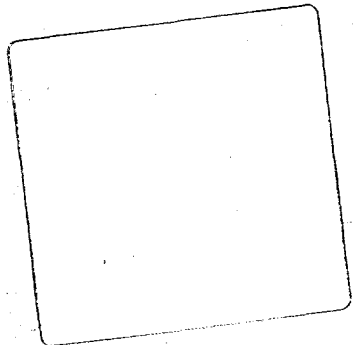


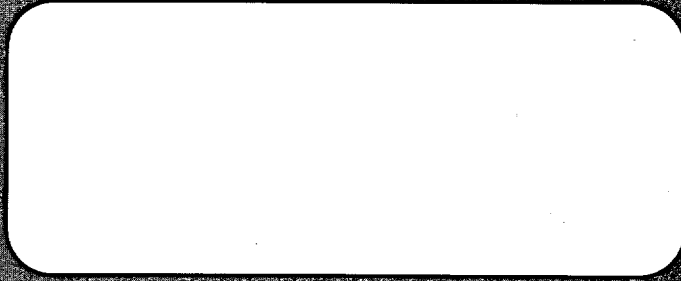


PHOTO CREDITS

- ① Propak
- ② FMC/Newdock
- ③ Hibernia Management
- ④ Dominion Diving
- ⑤ SOEP/Prisma Productions



Contact us:



THE CANADIAN
TRADE COMMISSIONER
SERVICE



LE SERVICE DES
DÉLÉGUÉS COMMERCIAUX
DU CANADA

www.infoexport.gc.ca