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Annual Report 1978
Hudson's Bay Oil and Gas Company Limited

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1978 Annual Report

About the Company

Hudson's Bay Oil and Gas has been engaged in exploring for and developing hydrocarbons in Canada for over fifty years and is a major producer of crude oil, natural gas and gas related products. Since 1973, exploration for petroleum has been carried on outside of Canada and the Company now has interests in exploratory properties in nine other countries and in crude oil production in Indonesia. Other activities in Canada include the transportation, purchase and sale of crude oil, natural gas liquids and sulphur. The Company also is active in coal and mineral exploration and has interests in oil sands developments.

At year end 1978, the Company had 18,983,272 common shares outstanding. Continental Oil Company, a United States based corporation, held 52.9% and Hudson's Bay Company, a Canadian corporation, held 21.1%. The remaining 26.0% were held by 7,492 public shareholders. Nearly 81% of the publicly held shares are owned by Canadians and, in total, Canadian shareholders own 42% of the common shares outstanding.

Annual Meeting of Shareholders

The Annual Meeting of Shareholders will be held at the Calgary Convention Centre, 110 Ninth Avenue S.E., on April 24, 1979 at 11:30 a.m.

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Highlights

	<u>1978</u>	<u>1977</u>	<u>Percent Increase (Decrease)</u>
Financial — Millions of dollars, except per share amounts			
Total Revenues	\$589.1	\$546.4	7.8
Government Royalties and Taxes	\$297.2	\$280.2	6.1
Net Earnings	\$106.6	\$ 98.9	7.8
Per Common Share	\$ 5.61	\$ 5.22	7.5
Funds Generated from Operations	\$203.6	\$189.0	7.8
Per Common Share	\$10.72	\$ 9.97	7.5
Dividends Declared			
Per Common Share	\$ 1.70	\$ 1.54	10.4
Capital Expenditures and			
Exploration Expenses	\$158.6	\$130.6	21.5
Working Capital	\$112.5	\$ 78.0	44.2
Long Term Debt	\$ 38.4	\$ 62.0	(38.1)
Shareholders' Equity	\$482.0	\$407.8	18.2
Operating (see footnote)			
Crude Oil and Natural Gas Liquids Production			
— Barrels per day	74,874	80,888	(7.4)
Natural Gas Sales — Millions of cubic feet per day	377.3	408.7	(7.7)
Sulphur Sales — Long tons per day	1,360	1,180	15.3
Pipe Line Throughput — Barrels per day	106,421	112,093	(5.1)
Drilling Activity — Gross wells	685	671	2.1
— Net wells	323.4	309.8	4.4
Oil and Gas Rights — Thousands of net			
acres at year end	19,636	21,268	(7.7)
Established Reserves — At year end			
Crude Oil and Natural Gas Liquids — Millions of barrels	265.5	283.3	(6.3)
Natural Gas — Billions of cubic feet	3,413	3,380	1.0
Sulphur — Thousands of long tons	6,443	7,304	(11.8)

Note: Throughout this report the Company's hydrocarbon production, sales and reserves volumes are reported on the basis of its ownership interests before deducting royalties, which are deemed to include participating interests of host governments.

Canada's Oil and Gas — A Perspective

During 1978 the Canadian petroleum industry participated with the National Energy Board in making an in-depth analysis of the future outlook for Canada's supplies of hydrocarbon energy. Public hearings were convened in May to examine the supply-demand outlook for crude oil, and similar hearings with respect to natural gas began in October. Evidence and opinions submitted to the Board lead to a number of important conclusions with respect to Canada's future energy balance and security of supply. Included among these are the following:

- the effect of rising prices on cash flows has encouraged record-level investments in exploration. There have been significant new oil and gas discoveries and the outlook for future discoveries has been enhanced.
- access to new markets and the attendant growth in cash flows will influence directly the pace of future discoveries.
- the substitution of natural gas for fuel oil in eastern Canadian markets should be encouraged where commercially feasible.
- reserves of natural gas are sufficiently in excess of foreseeable Canadian needs to permit new short-term gas export licences.
- reserves of conventional crude oil are not sufficient to meet Canadian needs and new oil sands development will be a critical element in limiting dependence on imports.

The supply-demand situation for oil differs widely from that of natural gas, yet the two are inextricably linked by the overall energy requirements of Canada. Conventional crude oil productive capacity is declining and the country's needs are rising. The ever-increasing shortfall will need to be satisfied with costly imported crude oil unless the industry is encouraged to develop the vast

reserves of heavy oil, including those of the oil sands. On the other hand, natural gas productive capacity now exceeds the needs of Canada. When the potential reserves of the frontier regions are considered, these needs can be satisfied well into the next century.

The federal energy policies which emerge from the recent hearings ideally will include the approval of new gas sales, further encouragement of oil sands and heavy oil development, and confirmation of the existing policy of moving prices toward world levels. Provincial policy initiatives will have to support and augment the federal position, particularly with respect to the development of oil sands and heavy oil resources where the investment at risk is huge and lead times are very long.

Proposals for new gas sales already have been filed with the National Energy Board by a number of gas purchasers and producer groups. These, however, will have to await the determination of federal government policy and a subsequent National Energy Board review of each proposal. Thus, it is unlikely that significant new sales will occur before 1980.

With the improved cash flows provided by the rise in wellhead prices in the past few years, the petroleum industry has expanded its efforts to discover new reserves. Substantial impetus also has come through provincial exploratory drilling incentive programs and less onerous federal tax regulations. Throughout this period, however, industry demand for labour and specialized services has been high, so the impact of inflation on the petroleum industry has been much greater than would be indicated by generally recognized indices. The financial burden imposed by this trend is compounded by the fact that industry production currently is limited by market demand. The growth in production of oil and gas has been inhibited by:

- energy conservation
- the impact of higher prices

- logistical problems in supplying eastern markets
- restrictions on export volumes.

If moderating price gains, marginal market growth and increasing costs persist, industry earnings and cash flow will be impaired. It will be extremely difficult for producers to maintain the present high level of industry investment without reasonable assurance that new markets will be available.

For the longer term, significant increases in the use of natural gas in Canada will come from new markets and the conversion from other forms of energy. For the short term, however, the only market capable of providing the required impetus is the United States. To capture a share of this market, Canada must act quickly and decisively because there is strong competition from improving indigenous supply in the United States, alternate energy forms, imported liquified gas and new Mexican supplies. The benefits of initiating new export sales include:

- immediate cash flow to Canadian producers to sustain the current high level of exploration and finance major oil sands and heavy oil development projects.
- significant foreign exchange infusions to help offset the purchase of imported crude oil and to bolster the Canadian dollar.
- protection of Canada's position as a reliable supplier to export markets which will be necessary to support the development of frontier gas reserves.

It is incumbent upon Canadian energy policy-makers to implement without delay the expansion of domestic and export natural gas markets to the degree which can be supported by our known hydrocarbon reserves.

Directors' Report

1978 Review

In 1978, the Company recorded improvements in financial results with higher levels of revenues, funds generated from operations and net earnings. These financial gains were attributable to increases in prices of crude oil and natural gas, as production volumes decreased due to excess supply in domestic markets, government restrictions on exports, and declining productivity in certain fields. The 1978 drilling program added natural gas reserves in excess of the volumes produced during the year, but additions to liquids reserves fell short of production.

Financial and Operating Results

Net earnings rose to \$106.6 million in 1978, an increase of 7.8% from the previous year. Net earnings per common share were \$5.61 compared with \$5.22 in 1977. Funds generated from operations advanced 7.8% to \$203.6 million or \$10.72 per common share from the \$189.0 million or \$9.97 per share achieved the prior year. Common share dividends totalling \$1.70 per share were declared during the year, an increase of 16 cents per share from 1977.

Net revenues totalled \$393.9 million, a gain of 6.6% primarily due to higher product prices. Total expenses, exclusive of income taxes, rose 10.9% to \$191.1 million, reflecting inflationary cost pressures and an expanded exploration program. Capital investment also increased, with the result that the return on capital employed was 16.4%, compared with 17.3% for the prior year, and the return on shareholders' equity declined to 24.0% from 26.5% in 1977.

Production of crude oil and natural gas liquids averaged 77,874 barrels per day, a decrease of 6,014 barrels per day from 1977. The majority of this decrease resulted from declining crude oil productivity in Indonesia and lower natural gas liquids production from the Kaybob area in Alberta. Sales of natural gas of 377.3 million cubic feet per day were 7.7% below that of



S. G. Olson
President and Chief Executive Officer

the previous year largely because of the surplus productive capacity that has developed in Alberta.

During 1978, capital expenditures and exploration expenses totalled \$165.5 million, of which \$6.9 million were reimbursed by the Alberta government through exploration incentive credits. The resulting net outlay by the Company was \$158.6 million, an increase of \$28.0 million over comparable expenditures in 1977.

Exploration and Development

Worldwide petroleum exploration accounted for \$87.2 million of the total outlays compared with \$69.7 million in 1977. In Canada, expenditures rose 40% to \$74.7 million. A substantial portion of this increase was attributable to expenditures for petroleum and natural gas rights in the West Pembina area of Alberta. In total, the Company participated in 105 domestic exploratory wells, of which 55 were oil or gas discoveries or extensions.

Foreign exploratory expenditures

amounted to \$12.5 million and included participation in the drilling of 14 wells in four countries. Exploration activities included operations in the Norwegian, Netherlands and United Kingdom sectors of the North Sea, as well as in Australia, Indonesia, Turkey and the United States. In Indonesia, two tests on the Southeast Sumatra block and one on the Kakap block were oil discoveries. One of the exploratory wells in the United States resulted in a gas discovery.

Capital spending for all petroleum development activities totalled \$62.7 million in 1978, compared with \$49.2 million in the previous year. Domestic development drilling costs accounted for a large portion of this increase and involved participation in a record 552 wells. In foreign areas, development activities included participation in 14 wells and the installation of an additional production platform in Indonesia.

Other Activities

Expenditures for the purpose of diversifying the Company's

revenues and operations amounted to \$5.5 million in 1978. Field exploration programs for coal, uranium and metals continued in various parts of Canada and opportunities to acquire coal and mineral properties at a more advanced stage of development were evaluated. During the year, the Company joined the Alsands Project Group which was formed to investigate the feasibility of a third oil sands mining plant in the Athabasca region of Alberta. The Company also is a participant both in a field pilot project and in laboratory tests to evaluate processes for the recovery of these heavy oils from deeper sands. In 1978 the Company and a group of gas producers organized a new gas marketing company, ProGas Limited, to secure additional markets for surplus Alberta natural gas.

Plans for 1979

Expenditures for exploration, development and other activities are expected to increase 25% to about \$185 million in 1979. Outlays for petroleum exploration will approach \$90 million, two-thirds of which will be spent in Canada. In Alberta, where the majority of this activity will occur, emphasis will be placed on drilling in the West Pembina and Whitecourt areas. A number of wells also will be drilled in the heavy oil areas of Saskatchewan and Alberta, and natural gas prospects will be tested in British Columbia. On the east coast the Company will participate in a deep test to be drilled offshore Newfoundland. Outside of Canada, exploratory activity will involve further drilling on the Kakap and Southeast Sumatra blocks offshore Indonesia, the Exmouth plateau area offshore Australia and in the North Sea.

Development expenditures will be approximately \$85 million, most of which will be made in Canada. Drilling expenditures will account for nearly one-half the total and will involve the completion of approximately 400 gross wells or

135 net wells. In Indonesia, several wells will be drilled to delineate and develop 1978 discoveries and two production platforms will be completed and the associated wells placed on stream.

During 1979, the Alsands mining project group will proceed with negotiations with governments and other pre-development activity. The two experimental oil sands projects in which the Company is a participant, as well as exploration programs for coal, metals and uranium, will be continued.

Industry Review and Outlook

Canadian production of crude oil, synthetic oil and condensate averaged 1.4 million barrels per day in 1978, fractionally lower than the prior year as modest gains in deliveries to domestic markets were more than offset by lower exports to the United States. Total production is expected to increase slightly in 1979, with the normal growth in traditional Canadian markets being augmented by additional deliveries to Montreal.

Sales of Canadian natural gas declined by 3% in 1978 to average 6.4 billion cubic feet per day. Sales in Canada, which represented 62% of the total, advanced by 4% and the outlook is for similar growth in 1979. Exports to the United States declined by 12% in 1978 as those distributors having export licences purchased less than their authorized volumes. A number of factors have contributed to this situation, such as improving indigenous supplies within the United States, competition from hydroelectric power and residual fuel oils, and resistance to rising prices. Despite this trend, there are distributors in some areas of the United States who presently have need for additional gas supplies but have been unable to obtain new Canadian export licences. These factors lead to the conclusion that growth in sales for 1979 will be limited to the modest improvement anticipated in domestic requirements.

The reference price of 42° gravity

crude oil in Edmonton advanced by \$1.00 per barrel on January 1, and again on July 1, 1978 under the terms of a federal-provincial pricing agreement. The last of the increases under the agreement, amounting to \$1.00 per barrel, was originally scheduled to occur January 1, 1979, but the federal government concluded that there should be a pause in the upward progression of crude oil prices. As a compromise, Ottawa and Alberta have agreed upon two increases of \$1.00 per barrel, the first of which will occur on July 1, 1979 and the second on January 1, 1980.

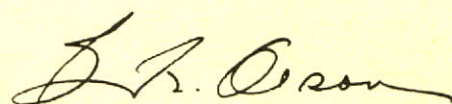
Under a separate federal-provincial pricing agreement which relates natural gas price increases to those granted for crude oil, the Toronto reference gas price rose to \$2.00 per thousand cubic feet in 1978 following increases of \$0.17 on February 1 and \$0.15 on August 1. Of the latter increase, only 4 cents flowed to the producer due to increased transportation costs. During 1979, it is expected that an increase of 15 cents per thousand cubic feet will follow the crude oil price increase scheduled for July 1, 1979.

Directors

At the 1978 Annual Meeting of Shareholders, all of the incumbent Directors of the Company were re-elected.

* * *

The achievements of the Company during the year reflect the energy, initiative and skills of its many employees. Once again, the Directors wish to express their appreciation for these contributions to a successful year.



Submitted on behalf of
the Board of Directors
February 9, 1979
Calgary, Alberta



O. Humeniuk, Treasurer; W. D. Storey, Vice-President Corporate Services; R. F. Haskayne, Executive Vice-President; and A. R. Travers, Controller.



R. J. Hamilton, Vice-President Exploration; R. Sedgewick, Vice-President Production; G. J. Maier, Executive Vice-President; and K. W. Lloyd, Vice-President Supply and Transportation.



K. H. Burgis, Senior Vice-President; W. E. Selby, Corporate Secretary; and L. B. Bannicke, General Counsel and Assistant Secretary.

Petroleum Exploration

General

Petroleum exploration expenditures, including capital and expense items, totalled \$94.1 million in 1978, an increase of 22% over the prior year. Exploratory outlays in Canada, before deducting provincial incentive credits, were \$81.6 million, 34% higher than the comparable amount in 1977, while expenditures outside of Canada were 24% lower at \$12.5 million.

Canadian Petroleum Exploration

Canadian petroleum exploration expenditures in 1978 were directed principally toward the acquisition and evaluation of prospects in Alberta, although significant amounts were spent in British Columbia, Saskatchewan, and the Arctic Islands. The Company participated in 105 exploratory tests in 1978, including 24 wells drilled by other companies under farmout agreements for an estimated \$19.0 million. On a geographic basis, 88 of these tests were located in Alberta, five in British Columbia, nine in Saskatchewan and three in the Arctic Islands.

The 1978 exploratory program in Canada resulted in 55 oil or gas discoveries or extensions. The ultimate potential of these successful wells will not be known until additional testing is carried out, but what appear to be the more prospective discoveries and extensions are shown in the accompanying map and table. The remaining discoveries and extensions are of lesser importance due to limited prospects for development of significant reserves or because the Company's acreage interest is small.

The west-central region of Alberta continued to be the most important exploratory area for the Company, with particular emphasis on the West Pembina and Whitecourt areas where the most significant successful wells were drilled.

In the West Pembina area, the Company spent approximately

Petroleum Exploration	1978	1977
	(Thousands of dollars)	
Canada		
Acreage expenditures.....	\$26,590	\$13,135
Drilling expenditures.....	36,921	31,230
Exploration expenses.....	18,091	16,438
	<u>81,602</u>	<u>60,803</u>
Foreign		
Acreage expenditures.....	364	510
Drilling expenditures.....	6,564	11,946
Exploration expenses.....	5,580	4,015
	<u>12,508</u>	<u>16,471</u>
Total expenditures.....	<u>94,110</u>	<u>77,274</u>
Canadian incentive credits.....	(6,886)	(7,544)
Net expenditures	<u>\$87,224</u>	<u>\$69,730</u>

Canadian Exploratory Wells

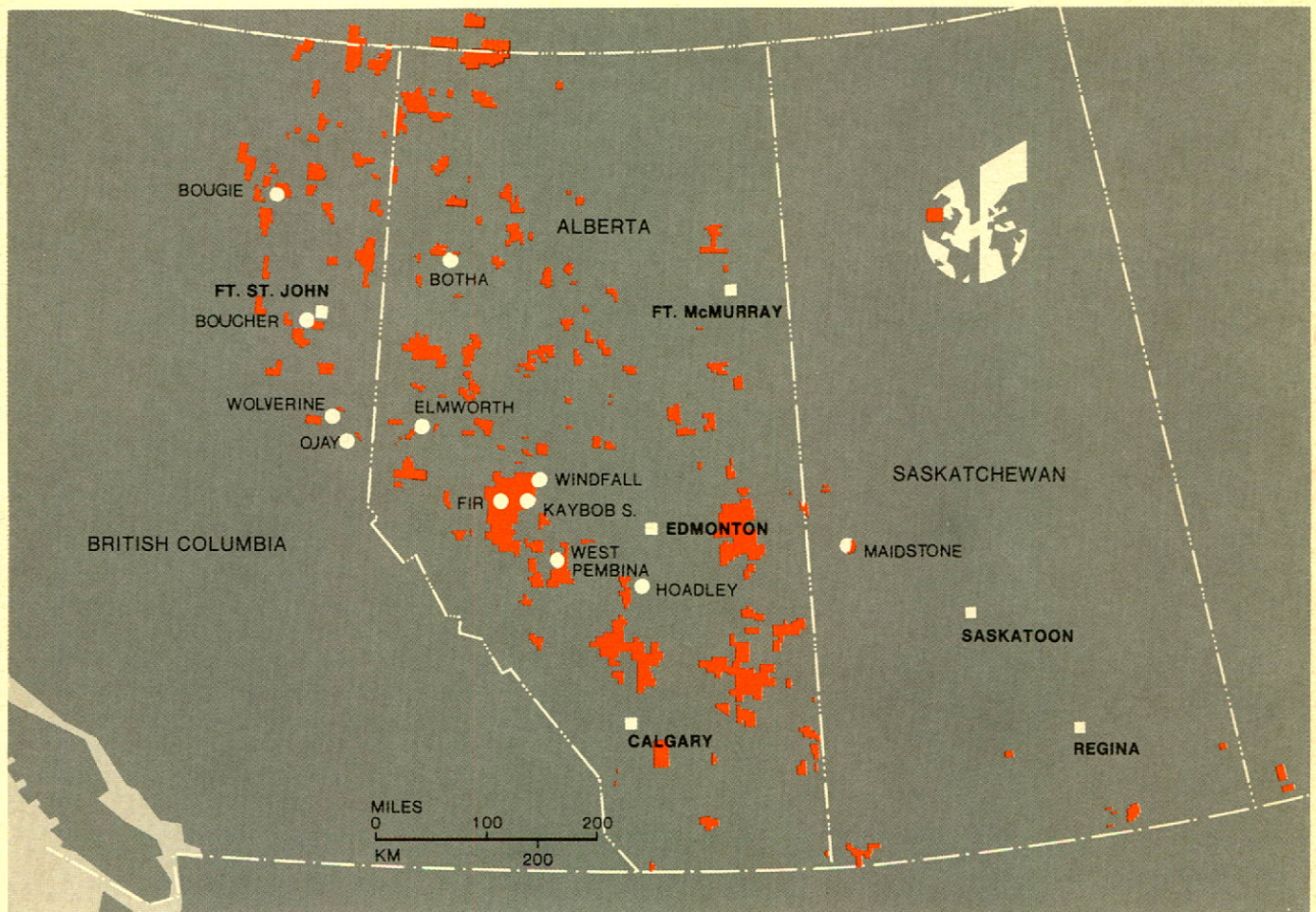
	1978		1977	
	Gross	Net	Gross	Net
Oil.....	10	5.8	15	12.5
Gas.....	45	21.0	42	19.7
Dry.....	50	26.2	74	40.4
Total.....	<u>105</u>	<u>53.0</u>	<u>131</u>	<u>72.6</u>
Average depth.....	7,783 feet		6,854 feet	

Discoveries and Extensions in 1978

Name of Field or Area	Number	Nature	Approximate Depth
British Columbia			
Boucher.....	2	Gas	5,200'
Ojay.....	1	Gas	11,500'
Bougie.....	1	Gas	10,700'
Wolverine.....	1	Gas	11,400'
Alberta			
Botha.....	1	Gas	7,400'
Elmworth.....	3	Gas	7,800'
Windfall.....	5	Gas	7,900'
Fir.....	2	Gas	9,200'
Kaybob South.....	1	Gas	11,400'
West Pembina.....	2	Oil	9,000'
	3	Gas	10,200'
Hoadley.....	1	Gas	7,100'
Saskatchewan			
Maidstone.....	1	Oil	2,000'

\$15.0 million to participate in the drilling of 19 exploratory tests and the deepening of three development wells along the 50 mile Devonian reef trend. Of these wells, three were Devonian Nisku gas and condensate discoveries and two were Devonian

Nisku oil discoveries. In addition, five wells were completed as gas and oil extensions or discoveries in other geologic formations. The Company augmented its strong acreage position in this area with the purchase of varying interests in



approximately 42,000 gross acres at a net cost of \$17.5 million, thereby bringing its holdings to 239,000 gross acres or 166,000 net acres.

In the Whitecourt area, the Company and its partners continued an extensive drilling program to evaluate over 600,000 acres of highly prospective leases. In 1978, 23 wells were drilled and 11 of these were successful gas completions. Seven of the gas wells were completed in Cretaceous sands, suggesting the possible emergence of a new gas play, but further drilling and testing will be required to determine the ultimate potential of these discoveries. Two successful gas wells were completed in the Triassic formation and extended the limits of the Fir field. There were also two successful completions in the Devonian Nisku formation, one of which was a new discovery while the other was a

three mile extension to a previous find.

At Hoadley, in central Alberta, the Company followed up a gas and condensate discovery made in 1977 by drilling one exploratory and seven delineation wells. Five of these tests were completed as Lower Cretaceous gas and condensate wells, two found gas in other zones, and one was abandoned.

In addition to the foregoing, potentially significant gas discoveries or field extensions were made at Elmworth and Botha in Alberta, and at Boucher, Ojay, Bougie and Wolverine in northeastern British Columbia. In the heavy oil area of Saskatchewan, the Company drilled nine exploratory wells. Five of these were successful with the most significant discovery being made in the Maidstone area.

In the Arctic Islands, an

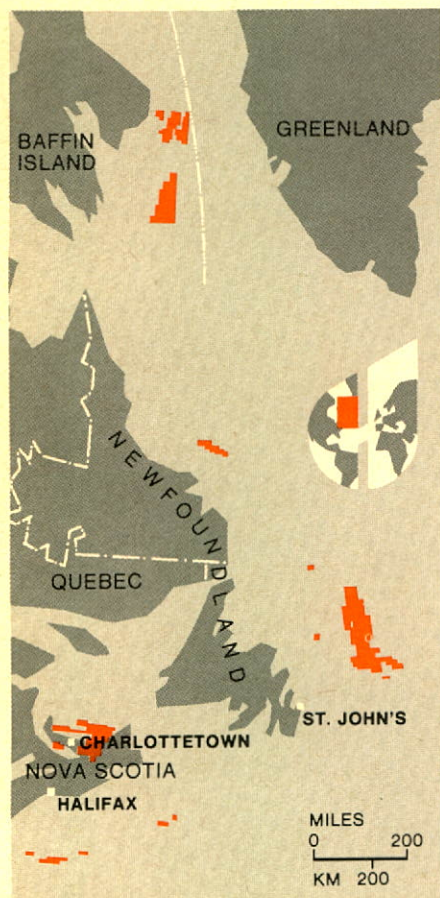
exploratory well tested a large offshore structure, but was unproductive. Although the results of this well were disappointing, the Company's other Arctic holdings remain prospective.

A total of 169,000 net acres of petroleum and natural gas rights was acquired during the year, of which 125,000 acres were purchased and 44,000 acres were earned under farmin agreements. Expenditures for land purchases totalled \$26.6 million. The Company also obtained options to earn up to a 50% interest in 320,000 acres in northeastern British Columbia under a farmin from British Columbia Resources Investment Corporation.

During the year, the Company surrendered 1.3 million net acres of petroleum and natural gas rights in Canada. The largest single surrender was 582,000 acres off the

east coast in the region of Prince Edward Island. At year end, holdings of undeveloped petroleum and natural gas rights in Canada totalled 13.3 million net acres with an associated acquisition cost of \$145.4 million. Rental payments in 1978 amounted to \$3.4 million while mineral taxes on undeveloped freehold acreage were \$368,000.

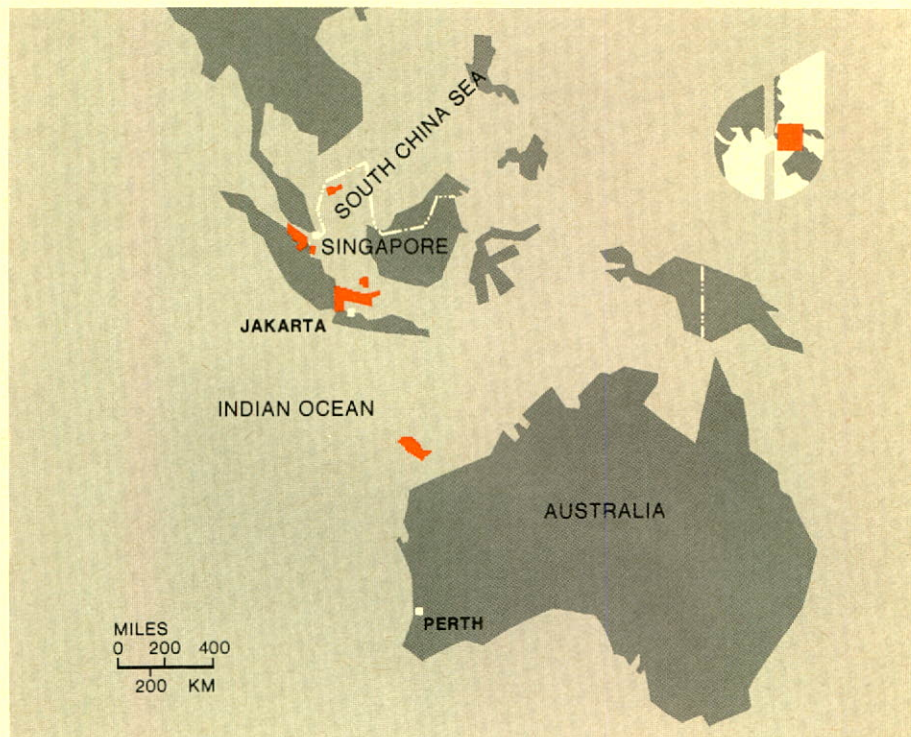
■ **LANDHOLDINGS — EAST COAST OF CANADA**



Foreign Petroleum Exploration

Exploratory activities were carried out in seven foreign countries during the year and, at year end, acreage interests were held in nine countries. Expenditures for foreign petroleum exploration amounted to \$12.5 million in 1978, a decrease of \$4.0 million from the prior year. The exploratory drilling program consisted of participation in fourteen wells which yielded three oil discoveries and one gas discovery.

■ **LANDHOLDINGS — AUSTRALIA AND INDONESIA**



	1978		1977	
	Gross	Net	Gross	Net
Oil	3	0.5	2	0.2
Gas.....	1	0.4	1	0.1
Dry.....	10	1.2	15	2.5
Total	14	2.1	18	2.8
Average depth.....	6,484 feet		7,833 feet	

Indonesia

In the offshore Southeast Sumatra contract area, the Company holds an 8.66% interest in 16.3 million acres. During the year, seven exploratory wells were drilled, two of which were oil discoveries in the Selatan area. The Selatan No. 7 exploratory well flowed 2,380 barrels of oil per day while Selatan No. 9 tested at a combined rate of over 4,100 barrels per day from two zones. A successful step-out to each of these discoveries also was drilled.

The Company holds a 33 1/3% interest in the one million acre Kakap block located in the South China Sea. A well drilled on this block in 290 feet of water tested oil from five zones at individual rates ranging from 364 to 2,973 barrels

per day, for a combined total production of 6,700 barrels per day. Three other zones in the well were tested, with two of them yielding small amounts of oil and the third producing approximately 14.4 million cubic feet per day of natural gas with 200 barrels per day of condensate. A seismic program is planned for early 1979 to define locations for a delineation drilling program.

The Company has negotiated a farmin, subject to final approval by the Indonesian government, whereby it will earn a 50% interest in 3.9 million acres in the Malacca Strait between Malaya and Sumatra. A geophysical program is scheduled for 1979 to be followed by exploratory drilling.

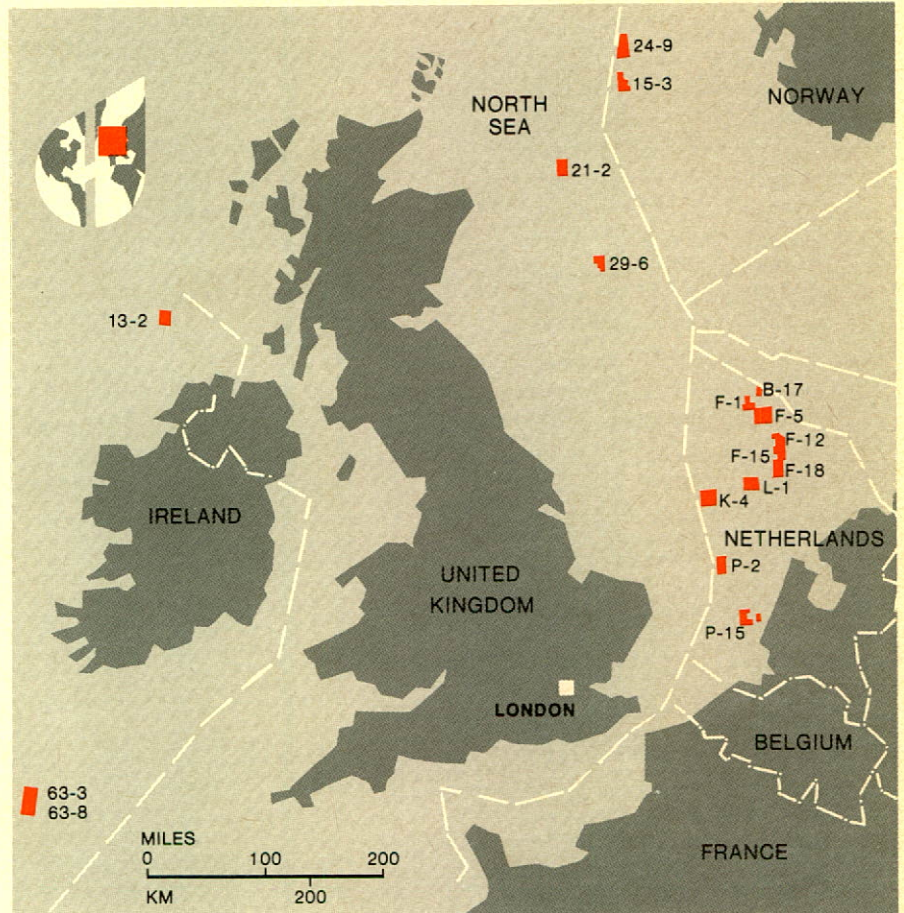
■ LANDHOLDINGS – NORTH SEA

North Sea

In the Netherlands sector of the North Sea, the Company holds interests varying from 6.4% to 14.2% in ten blocks comprising 614,000 acres where two unsuccessful exploratory wells were drilled in 1978. Seismic work was underway at year end to evaluate prospects on other portions of the licences.

The Company holds a 5% interest in 82,000 acres in Blocks 21/2 and 29/6 offshore the United Kingdom. An exploratory well was drilling at year end on Block 21/2 as a one mile step-out from a 1975 oil discovery.

During 1978, the Company made applications for new acreage in the U.K. and Norwegian sectors of the North Sea. Other activities included engineering studies and planning for a deep test on Block 15/3 offshore Norway which commenced drilling in January, 1979.



A sea-level view of the Cinta production platform in the Southeast Sumatra contract area.



Australia

The Company holds a 40% interest in an eight million acre permit on the Exmouth Plateau offshore northwest Australia. As manager-operator for a group of Canadian and Australian companies, the Company carried out an extensive seismic program in 1978 which located a number of large structures. The group's first exploratory well will commence in mid 1979 on the eastern portion of the block in approximately 980 feet of water.

Other Areas

In the United States, the Company participated in four exploratory wells. One well was a modest gas discovery in Oklahoma and one was a deep test in Wyoming which has

not been fully evaluated. The other two are located in Texas and were still drilling at year end.

The Company continues to hold a 33 $\frac{1}{3}$ % interest in 890,000 acres in the Sinai Peninsula of Egypt. A portion of the area is included in the buffer zone between Egypt and Israel and, consequently, exploratory activity cannot be initiated until the area becomes politically stable.

In the Gulf of Izmir, offshore Turkey, the Company participated in a 7,000 foot exploratory test to earn an 18.6% interest in 247,000 acres. The well was unsuccessful and the licence will be relinquished.

Repairing cable during seismic operations offshore northwestern Australia.



Undeveloped Petroleum and Natural Gas Rights Gross and Net Acreage Holdings (Thousands of Acres) as at December 31, 1978 (1)

	Crown Reservations & Permits (2)		Leases		Freehold Lands (3)		Total	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Canada								
Alberta	917	533	4,018	2,121	1,307	1,307	6,242	3,961
British Columbia	1,036	462	843	412	6	6	1,885	880
East Coast (4)	4,651	1,804	—	—	—	—	4,651	1,804
Northwest Territories (incl. Arctic Islands & Baffin Offshore)	12,549	5,373	272	262	—	—	12,821	5,635
Manitoba	—	—	48	48	127	127	175	175
Saskatchewan	—	—	161	81	741	741	902	822
Total Canada	<u>19,153</u>	<u>8,172</u>	<u>5,342</u>	<u>2,924</u>	<u>2,181</u>	<u>2,181</u>	<u>26,676</u>	<u>13,277</u>
Foreign								
Australia							8,031	3,212
Egypt							890	297
Indonesia							17,309	1,751
Ireland							189	28
North Sea								
— Netherlands							614	78
— Norway							159	25
— United Kingdom							82	4
Turkey							247	46
United States							34	17
Total Foreign							<u>27,555</u>	<u>5,458</u>
Total							<u>54,231</u>	<u>18,735</u>

- (1) Gross acreage represents the total number of acres in which the Company has a participating interest. Net acreage represents the Company's share of gross acreage calculated in accordance with its various ownership interests.
- (2) Convertible into leases to the extent of approximately 50%.
- (3) Includes 1.9 million acres owned by Siebens Oil and Gas Ltd. on which the Company has exclusive rights until December 31, 1999 to lease any portion of the lands without bonus payment.
- (4) Offshore permits include 1,263,000 gross (829,000 net) acres covered by federal but not provincial rights and 619,000 gross (177,000 net) acres covered by provincial but not federal rights.

Petroleum Production

General

Petroleum production capital expenditures amounted to \$62.7 million in 1978, compared with \$49.2 million in the prior year. Expenditures in Canada increased 25% to \$59.9 million primarily as the result of an expanded development drilling program. Production expenditures in foreign areas totalled \$2.8 million and represented outlays for production facilities in Indonesia.

Development Drilling

Canada

Expenditures for development drilling in Canada amounted to \$31.1 million in 1978, an increase of 24% over the previous year. The Company participated in 552 domestic wells in which it had interests equivalent to 267.1 net wells. Of these net wells, 211.7 were drilled in Alberta, 52.5 in Saskatchewan and 2.9 in British Columbia. Included are 14.7 net

Refrigeration units, such as these at the Edson gas plant, condense the liquids contained in raw natural gas.

wells that were drilled under farmout agreements involving no cash outlay by the Company.

The development drilling program resulted in the completion of 78.3 net oil wells and 140.9 net gas wells. The oil wells added approximately 2,380 barrels per day to the Company's production capability and contributed 387 barrels per day to 1978 production volumes. Most of these oil wells were completed in the Alberta and Saskatchewan sections of the

Lloydminster heavy oil area where the Company has developed production capability of 1,650 barrels per day. Continuation of the heavy oil program in 1979 is expected to increase this level of production significantly. Other oil development occurred in the Muskeg, Cessford, Sylvan Lake and Twining areas of Alberta. The majority of the development gas wells were drilled in east-central Alberta to evaluate expiring lands and maintain deliverability in older fields.

Petroleum Production	1978	1977
	(Thousands of dollars)	
Canada		
Development drilling	\$31,107	\$25,082
Plants and related facilities	21,362	16,462
Other production facilities	7,479	6,553
	<u>59,948</u>	<u>48,097</u>
Foreign		
Development drilling	2,558	1,530
Other production facilities	196	923
	<u>2,754</u>	<u>2,453</u>
Adjustment related to 1976 acquisition of producing properties	—	(1,400)
Total	<u>\$62,702</u>	<u>\$49,150</u>



Foreign

All of the Company's foreign development drilling took place in the Southeast Sumatra contract area of Indonesia where participation in 14 wells yielded 13 gross (1.1 net) successful oil wells.

Two of the successful wells were drilled to follow up the oil discoveries made earlier in the year in the Selatan region of the Southeast Sumatra contract area. These delineation wells confirmed the presence of sufficient reserves to justify construction of two permanent production platforms. The first platform was installed in 1978 and the wells drilled from it commenced production in December.

Elsewhere in the Southeast Sumatra contract area, two successful delineation wells extended the Gita field, and a new production platform will be installed. The Gita platform and the second Selatan platform will be installed in the second quarter of 1979 and the wells will be on stream by August. Production from the three new platforms will approximately offset the rapid decline expected from existing operations in the producing area.

Production Facilities

During 1978, approximately 43 million cubic feet per day was added to the Company's gas sales capacity. This addition was made through the completion of three new gas plants at West Edson, Niton and Tangent in Alberta; expansion of the Brazeau plant; and additional development at Roger, British Columbia and Suffield, Alberta. Two plants at West Fox Creek and Duvernay in Alberta were in advanced stages of construction at year end and should add another 8.3 million cubic feet per day of sales capacity in the first quarter of 1979.

In order to maintain or enhance deliveries under existing sales contracts, the Company has directed considerable effort toward ensuring that its plants are able to deliver the volumes of gas required by the gas purchaser. Deliverability maintenance projects in 1978 consisted of compressor installations in five fields and new well connections in an additional six fields.

Crude Oil

Production of crude oil averaged 55,732 barrels per day, a reduction

of 6.2% from 1977. The largest part of this decrease occurred in Indonesia where production was down 2,535 barrels per day due to a normal decline in productivity and temporary storage problems associated with tanker loading facilities. Domestic production was down 1,144 barrels per day as a result of declining productivity in a number of mature fields and lower export demand. Additional production from new wells drilled in the Lloydminster and Windfall areas was insufficient to offset these losses in 1978.

The average price received by the Company in 1978 for its crude oil production in Canada was \$12.02 per barrel, an increase of \$2.03 per barrel from 1977. The average price received for Indonesian production sold in international markets was \$13.15 U.S. Approximately 88% of the Company's Canadian crude oil production is in Alberta, of which 23% is from freehold leases that are subject to lower royalty rates than those applicable to Crown leases.

Natural Gas Liquids

Natural gas liquids production declined 2,308 barrels per day to average 19,142 barrels per day in 1978. These liquids consist of condensate and LPG (propane and butane) which are produced in conjunction with natural gas and are separated in processing plants. Condensate production, at 12,528 barrels per day, decreased 13.2% from 1977. The major factor contributing to this decline was restricted operations at the Kaybob No. 1 plant due to a fire in December of 1977. Full throughput was not regained until the third quarter of 1978. A portion of the revenue lost because of the fire was covered by insurance. Reduced production volumes also occurred at a number of other plants due to declining gas deliverability and lower gas sales.

The average price realized by the Company for its condensate sales in 1978 was \$12.29 per barrel, an increase of \$1.98 per barrel from the 1977 average.

Canadian Development Wells

	1978		1977	
	Gross	Net	Gross	Net
Oil	119	78.3	99	64.4
Gas	346	140.9	342	128.0
Dry	87	47.9	59	39.0
Total	552	267.1	500	231.4
Average depth	3,207 feet		2,706 feet	

Foreign Development Wells

	1978		1977	
	Gross	Net	Gross	Net
Oil	13	1.1	19	2.5
Gas	—	—	—	—
Dry	1	0.1	3	0.5
Total	14	1.2	22	3.0
Average depth	4,177 feet		4,489 feet	

Production of LPG averaged 6,614 barrels per day, a decrease of 5.8% from 1977 as a result of the same factors which affected the production of condensate. LPG prices rose \$0.91 per barrel to an average of \$8.47 per barrel for the year.

Natural Gas

Sales of natural gas declined 7.7% in 1978 to average 377.3 million cubic feet per day. Sales from new sources at Roger, Fir, Sundance and others contributed 25.1 million cubic feet per day, but these were more than offset in other areas where reduced deliveries to purchasers were necessary as a result of the surplus supply of natural gas in Alberta.

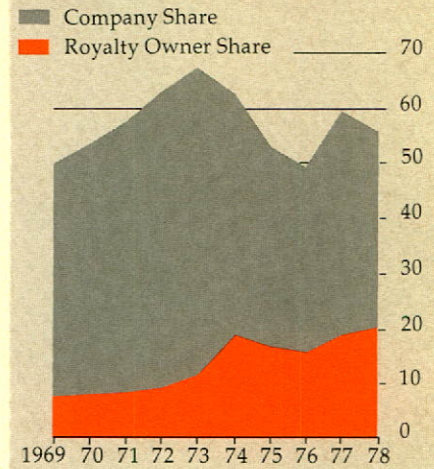
The surplus of natural gas forced

gas purchasers to take less than the minimum contracted volumes in 1978 but, under the "take or pay" provisions of the contracts, they are required to make payments to producers for the undelivered volumes. As a result, the Company has received a total of \$18.5 million based on a shortfall in deliveries of 15.2 million cubic feet per day for contract years ending in 1978. The treatment of these items in the Company's financial and operating results is described on page 23.

The average wellhead price received by the Company for all natural gas sales in 1978 was \$1.51 per thousand cubic feet, 23 cents higher than the previous year. Approximately 93% of the Company's natural gas production occurs in Alberta, of which 23% is

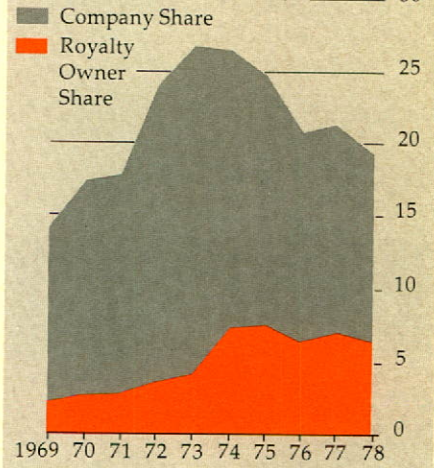
Production of Crude Oil

Thousands of barrels per day



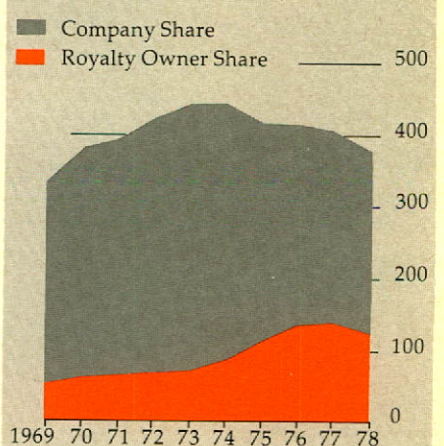
Production of Natural Gas Liquids

Thousands of barrels per day



Natural Gas Sales

Millions of cubic feet per day



Crude Oil Production

	1978	1977
	(Barrels per day)	
Canada		
Alberta		
Pembina	6,299	6,881
Kaybob South Triassic	3,591	3,521
Zama	3,050	3,181
Sturgeon Lake South	2,639	2,812
Virginia Hills	2,442	3,051
Sundre	2,410	2,441
Medicine River	2,287	2,376
Innisfail	1,718	1,655
Bonnie Glen	1,650	1,623
Sylvan Lake	1,614	1,471
Fenn Big Valley	1,384	1,184
Cessford	1,332	1,462
Swan Hills South	1,279	1,294
Windfall	1,102	885
Others	9,580	9,176
Total Alberta	42,377	43,013
British Columbia	1,155	1,619
Manitoba	12	13
Saskatchewan		
Lloydminster	1,482	1,453
Others	3,368	3,440
Total Saskatchewan	4,850	4,893
Total Canada	48,394	49,538
Foreign		
Indonesia	7,306	9,841
United States	32	59
Total Foreign	7,338	9,900
Total	55,732	59,438

Natural Gas and Associated Products

	Natural Gas Sales (Millions of cubic feet per day)		Condensate Production (Barrels per day)		LPG Production (Barrels per day)		Sulphur Production (Long tons per day)	
	1978	1977	1978	1977	1978	1977	1978	1977
Alberta								
Brazeau River	36.8	48.4	424	564	—	—	20	26
Caroline	15.1	16.7	307	365	479	501	3	4
Cessford	19.1	23.3	45	57	—	—	—	—
Edson	68.7	90.0	607	808	—	—	61	66
Harmattan	5.3	5.4	508	550	295	391	4	3
Kaybob	25.3	27.6	7,399	8,588	4,217	4,494	624	700
Lone Pine Creek	16.3	20.7	499	577	—	—	72	85
Medicine Hat	9.5	10.2	—	—	—	—	—	—
Sylvan Lake	8.1	10.2	113	136	276	339	—	—
Whitecourt (Windfall)	23.5	23.4	1,292	1,518	—	—	362	346
Zama	6.7	6.8	257	238	84	108	30	23
Others	114.8	104.5	1,073	1,023	1,259	1,184	140	157
Total Alberta	349.2	387.2	12,524	14,424	6,610	7,017	1,316	1,410
British Columbia								
Clarke Lake	14.3	13.9	—	—	—	—	—	—
Roger	8.1	—	—	—	—	—	—	—
Others	4.7	6.4	4	2	—	—	—	—
Total British Columbia	27.1	20.3	4	2	—	—	—	—
Saskatchewan	0.9	1.0	—	—	—	—	—	—
Total Canada	377.2	408.5	12,528	14,426	6,610	7,017	1,316	1,410
Foreign	0.1	0.2	—	2	4	5	—	—
Total	377.3	408.7	12,528	14,428	6,614	7,022	1,316	1,410



from freehold leases that are subject to lower royalty rates than those associated with Crown leases.

Sulphur

Sulphur production averaged 1,316 long tons per day in 1978, a decrease of 6.7%. Sulphur sales, however, increased 15.3% to average 1,360 long tons per day due to growth in demand in all market areas. This level of sales represented 103% of production compared with the 84% sold in the prior year and, as a result, year end inventories of 1.7 million long tons were slightly lower than those of the previous year end.

Sulphur prices rose significantly in 1978. The Company's net realization for all sales of sulphur, including that sold as acid gas, averaged \$14.58 per long ton, an increase of \$2.46 per long ton from last year.

Natural gas treatment facilities at the Zama plant in northwestern Alberta.

Reserves

The Company's established reserves at December 31, 1978, as estimated by its reservoir engineering staff, are shown in the accompanying table. Established reserves are determined in accordance with the standards recommended by the Canadian Petroleum Association. They include only those volumes of crude oil, natural gas and natural gas liquids considered to be recoverable under current technology and present and anticipated economic conditions, and which:

- (a) have been proven by drilling, testing or production; and
- (b) have been demonstrated, with reasonable certainty, to exist contiguous to the proven volumes on the basis of sound engineering and geologic interpretation of available data.

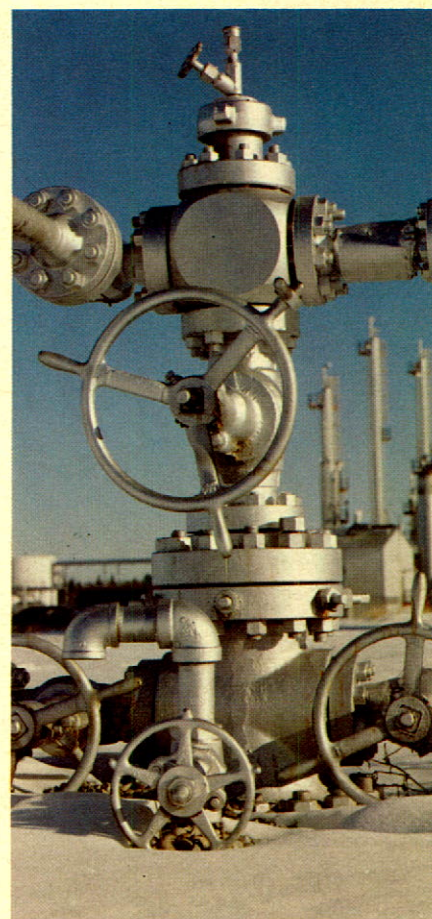
The reported crude oil reserves in Canada do not include the potentially large volumes of heavy oil reserves in the Athabasca oil sands or reserves in the Arctic. The reserves in these areas will be included when sufficient development has taken place to assure their production. Liquefied petroleum gases are not included in the reported reserves of natural gas liquids unless the facilities required for their extraction are in existence or are assured of construction.

Crude oil reserves declined by 6.3% to 194.5 million barrels. In Canada, volumes added by the 1978 drilling program fell short of replacing production. Foreign reserves, virtually all of which are located in Indonesia, increased as a result of the new reserves developed in the Selatan field in the Southeast Sumatra contract area.

Natural gas reserves rose slightly to a year end total of 3,413 billion cubic feet. The 1978 drilling program added 190 billion cubic feet, well in excess of the year's production; however, a major downward revision to the reserves recoverable from the Kaybob field moderated the impact of the drilling success. An extensive engineering study of the Kaybob field has been completed and the results indicate that, despite the operation of a gas cycling scheme from the inception of production from this reservoir, water encroachment has reduced the volume of recoverable reserves.

Reserves of natural gas liquids, at a total of 71.0 million barrels, were 6.3% lower than the prior year end estimate. Reserves discovered by the 1978 drilling program replaced about 75% of the year's production. The resulting shortfall was aggravated by a projected reduction in the volume of liquids recoverable in the Kaybob field due to the downward revision of natural gas reserves.

Sulphur reserves declined to 6.4 million long tons as a result of production and the revision to the reserves recoverable from the Kaybob field.



A wellhead, or "christmas tree," frames the Company-operated Caroline gas plant.

Established Reserves

	Crude Oil (Thousands of barrels)		Natural Gas Liquids (Thousands of barrels)		Natural Gas (Billions of cubic feet)		Sulphur(1) (Thousands of long tons)
	Canada	Foreign	Canada	Foreign	Canada	Foreign	Canada
At December 31, 1977	198,017	9,544	75,782	23	3,379	1	7,304
Added by: drilling	2,741	2,580	5,326	—	190	—	—
enhanced recovery	335	—	—	—	—	—	—
Revisions of estimates and ownership	833	783	(3,112)	(19)	(18)	(1)	(381)
Production	(17,664)	(2,680)	(6,985)	(1)	(138)	—	(480)
At December 31, 1978	184,262	10,227	71,011	3	3,413	—	6,443
Total — December 31, 1978 (2)	<u>194,489</u>		<u>71,014</u>		<u>3,413</u>		<u>6,443</u>

(1) Sulphur reserves do not include processed sulphur inventories at above ground storage locations.

(2) These amounts correspond to the United States' Securities and Exchange Commission's definition of proved reserves. The percentages of these reserves which can be classified as proved developed are: crude oil — 99%, natural gas liquids — 95%, natural gas — 88%, and sulphur — 93%.

Supply and Transportation

During 1978, the Company's pipe line division gathered and transported an average of 106,421 barrels per day of crude oil and natural gas liquids, a decrease of 5,672 barrels per day from the previous year. This reduction in throughput is the result of production declines in oil fields and natural gas processing plants served by the gathering system and connecting carriers, notwithstanding the connection of more than 1,500 barrels per day of new production in 1978. The portion of the total volume represented by trunk line movements into the United States Rocky Mountain area declined slightly to average 60,441 barrels per day due to continued curtailment of Canadian exports. The crude oil volumes exported via the Company's pipe line, however, have not declined in proportion to the scheduled reduction of Canadian exports because of exchanges approved by the governments of Canada and the United States. Under this exchange procedure, additional exports to refiners in the Rocky Mountain area are replaced by shipments of American production to refiners in eastern Canada.

Capital expenditures for additions and improvements in 1978 amounted to \$1.7 million, bringing cumulative investment in the

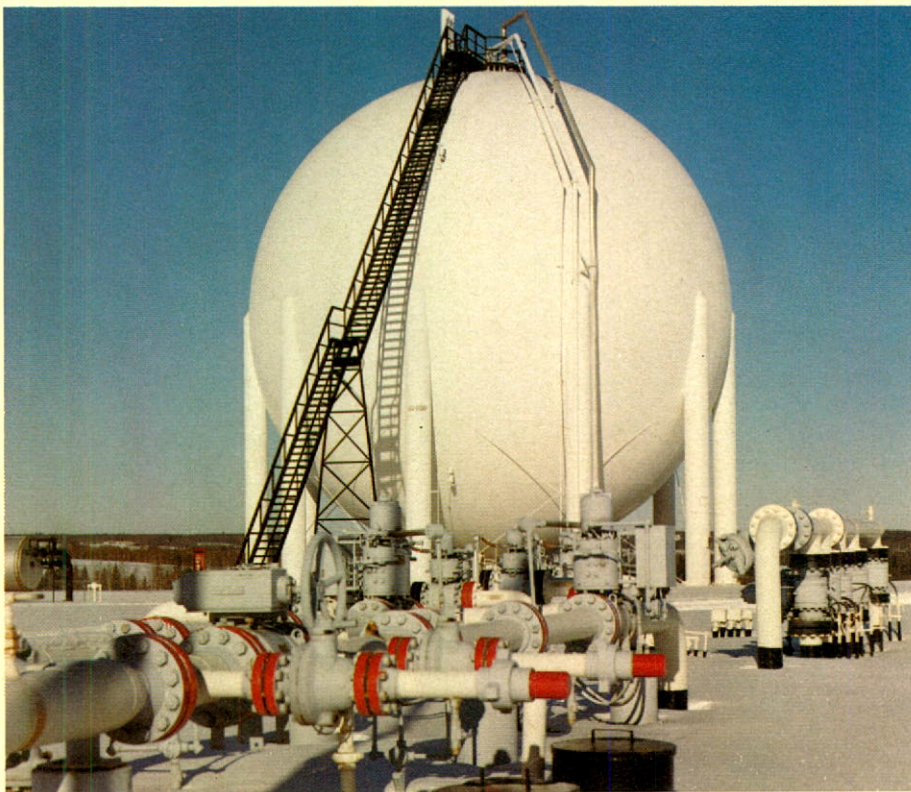
system to \$43.4 million. At year end, the system consisted of 450 miles of trunk line and 492 miles of gathering line, all within the province of Alberta.

In addition to its own pipe line system, the Company has a 16⅓% equity interest in Peace Pipe Line Ltd., which provides gathering and trunk services for crude oil and

natural gas liquids in west-central Alberta. Dividend income from this investment amounted to \$445,000 during the year.

Trading operations in 1978 averaged 99,445 barrels per day of crude oil and 7,631 barrels per day of natural gas liquids, decreases from 1977 of 1.5% and 12.3% respectively.

This Horton sphere is used for storing butane at a Company pumping station near Sundre, Alberta.



Other Exploration and Business Development

During the year the Company continued its investigation into business opportunities outside of traditional petroleum exploration and development activities. Efforts to diversify operations and sources of revenues were directed toward oil sands development and exploration for non-ferrous metallic minerals, uranium and coal. The Company concluded its feasibility studies of a condensate-based petrochemical plant and, as a result of its findings and a reassessment of corporate objectives with respect to downstream integration, withdrew from the project. Expenditures incurred in these activities are shown in the accompanying table.

	1978	1977
	(Thousands of dollars)	
Capital Expenditures		
Acquisition of coal rights.....	\$ 477	\$ 192
Project Expenses		
Oil sands.....	1,048	1,687
Minerals exploration.....	2,725	3,130
Coal exploration.....	258	579
Petrochemicals project.....	11	2
	<u>4,042</u>	<u>5,398</u>
Operating expenses.....	970	936
Total expenses.....	<u>5,012</u>	<u>6,334</u>
Total capital expenditures and expenses.....	<u>\$5,489</u>	<u>\$6,526</u>

Oil Sands

During 1978, the Company joined a consortium of nine companies which was formed to investigate the feasibility of an oil sands mining project in the Athabasca region of Alberta. This consortium, known as the Alsands Project Group, filed an application for project approval with the Alberta Energy Resources Conservation Board late in the year. If satisfactory terms can be negotiated and government approvals obtained, the plant could be onstream in the mid 1980's. The proposed plant would have a capacity of 140,000 barrels per day of synthetic crude oil and LPG products. The gross cost of the project to start up is expected to be nearly \$5 billion and, at its present 8% interest in the consortium, the Company's share of the investment would be approximately \$400 million.

A major portion of the 1978 expenditures on oil sands activities was devoted to an experimental in situ recovery project in the Cold Lake area of Alberta. The project, which is based on steam stimulation and underground combustion as a method for recovery of heavy oil, began operating in the second quarter of the year and is expected to terminate in 1985. During this time the commercial viability of the techniques will be assessed. Through its participation in the project, the Company will earn the right to acquire a 17.5% interest in the 75,000 acres of oil sands leases

on which the project is located.

Detailed planning of a series of laboratory tests, jointly funded by the Company and the Alberta Oil Sands Technology and Research Authority, commenced in the third quarter of 1978. These tests, which will evaluate the use of steam to recover bitumen from shallow oil sands, will begin in the first quarter of 1979 and could lead to a field pilot project on the Company's wholly-owned 50,000 acre bituminous sands lease in the Athabasca deposit.

Minerals Exploration

During 1978, exploration for base metals was carried out primarily in British Columbia and Newfoundland, but activity also took place in Quebec, Ontario, the Yukon Territory and the Northwest Territories. The British Columbia program was conducted through a joint venture agreement and involved drill tests which intersected encouraging lead-zinc mineralization. An expanded drilling program is planned for 1979 to assess this find.

Uranium exploration programs were concentrated in the Northwest Territories, although exploration also was carried out in Saskatchewan and Labrador. During 1978, a farmout agreement was concluded whereby the Company will act as operator and retain a 50% interest in 394,000 acres in the Great Bear Lake area of the Northwest Territories. Late in

the year the Company finalized two more agreements which increased its holdings of prospective uranium properties. The first was a farmin under which the Company will earn a 50% interest in 328,000 acres near Hawkrock Lake in the Athabasca area of northern Saskatchewan, and the other agreement resulted in the acquisition of an 88% interest in 11,500 acres in northeastern Alberta on a continuation of the northern Saskatchewan Athabasca geological trend.

At year end, holdings of mineral titles in Canada totalled 137,000 net acres. Exploration rights were held on an additional 717,000 net acres and will permit the Company to retain various interests in selected portions of these tracts.

Coal Exploration

During the year, the Company completed a drilling exploration program on a 19,000 acre thermal coal prospect south of Grande Prairie in northwestern Alberta, the results of which were being evaluated at year end. A detailed mapping program was completed on the southwest block of the 8,300 acre Fall Creek property in the Alberta foothills. This work identified additional reserves of metallurgical coal that complement proven reserves of 33 million clean short tons of metallurgical grade coal on the northeast block of this property.

Option agreements were concluded during the year to acquire a 100% interest in 17,320 acres of Crown coal leases in the Drumheller area of central Alberta and a 100% interest in 12,800 acres of Crown coal licences on Vancouver Island. Drilling programs are planned for each of these thermal coal prospects in 1979.

At year end, holdings of coal rights in Canada totalled 43,000 net acres and a further 134,000 net acres were held under Crown lease applications.

A geophysical technician prepares a trench during uranium exploration activities in the Northwest Territories.





Corporate Responsibility

The prime objective of Hudson's Bay Oil and Gas Company is to earn a reasonable return for its shareholders while assisting in the efficient development of Canada's energy resources. In pursuing this objective, the Company is conscious of its responsibilities as an employer, as a member of the communities in which it has operations, and as a corporate citizen of Canada and the other countries where it has activities.

Employees

Recruitment

To satisfy the Company's growing requirements for competent staff, university and technical institute recruiting programs were expanded in 1978. Recruiters travelled across Canada in their search for qualified professionals and employed eighty new graduates. Each summer many

students are given temporary employment which provides on-the-job learning opportunities and funds for the continuation of their education.

Development

The Company's employee development program is designed to provide the opportunity and incentive for professional and technical staff to maintain competence within their particular disciplines. Continuing programs included on-the-job training, plant operations and maintenance progression training, supervisory skills courses, and workshops. Management and supervisory training is also provided for those individuals whose job performance, ability and aptitude indicate that they are qualified for additional responsibilities. In addition, participation in job-related courses at universities and technical schools

is encouraged through the Financial Aid to Education program under which the Company pays 75% of the cost.

Compensation

The Company's salary administration policy provides compensation based on education and job performance, with due regard for job content and trends in industry compensation levels. By year end 1978, 1,401 people were employed compared with 1,350 in 1977. The cost of salaries, wages and benefits in 1978 totalled \$34.9 million, an increase of 13.2% over the previous year.

Safety

The objective of the Company's safety program is to eliminate injuries through the education of employees, the application of safety procedures, and the acquisition and maintenance of high quality equipment. The positive results of these programs were illustrated in 1978 when seven of the nine Company-operated gas processing plants received safety awards in recognition of twelve consecutive months without a lost-time injury. In addition, four field operating groups, involving a total of approximately thirty employees, completed twelve years of operations without incurring a lost-time injury. Employees driving Company vehicles are required to complete a defensive driving course successfully, and this course is offered to other interested employees and families.

Community

Environmental

Company operations are conducted in a manner which ensures efficient and responsible utilization of the environment consistent with optimum conservation and preservation of air, water and land. In 1978, a number of pollution abatement programs were completed, including a noise suppression project at the Cessford gas plant. A new control system which reduces sulphur emissions and leads to more

A Company co-ordinated exercise testing the use of air bubbles to contain oil spills.



consistent sulphur recoveries was developed and has been installed at four company-operated natural gas processing plants.

The Company's emergency procedures program for field employees included oil spill response exercises and field training for handling emergencies associated with sour gas drilling operations. Training seminars were held at various plant and field locations to ensure complete familiarization with the Company's Emergency Procedures manuals.

During the year, the Company maintained an active role in a number of industry-sponsored research projects directed toward the potential impact of oil and gas operations on plant and animal life off the coast of Labrador, the dispersal of hydrogen sulphide gas in accident situations, and recovery of oil spilled under river ice. The Company coordinates its activities with government environmental agencies and has taken a leading role in joint industry-government projects involving environmental planning and management.

Community Assistance

The Company encourages the development of the arts, as well as health, recreational and educational

programs and facilities, and each year provides funds to support a broad range of such activities. The Company is a major contributor to the United Way and other social, charitable and health organizations, and provides assistance to musical, theatrical and other artistic groups. A program to subsidize recreational facilities in the smaller urban communities where the Company operates was increased during the year, and funds are being provided for the development of the Energy Industry Park and Interpretive Centre, an adjunct to the Calgary Zoo.

The Company recognizes the financial needs of universities and other institutes of higher learning throughout Canada, and provides funds to further teaching and research programs. This program of grants to universities will continue and expand.

Corporate Citizen

Energy Development and Conservation

For several years the Canadian government has been committed to the goal of self-reliance in energy. The Company supports this objective and in 1979 will spend approximately \$140 million in Canada for petroleum exploration,

development and conservation programs.

During 1978, energy conservation programs included modifications to plant equipment and operating procedures at several gas processing plants in order to reduce energy requirements. Alteration and replacement of equipment at Kaybob No. 1 and 2 plants improved energy utilization and resulted in fuel savings of three to four million cubic feet of natural gas per day. At the Brazeau gas plant, modification of operations resulted in a saving of up to 275 thousand cubic feet per day of fuel gas.

Research

The Company's research program is designed to enhance its competitive position within the petroleum industry. In 1978, petroleum research activities were expanded with the finalization of fiscal and operating arrangements under which the Company became a partner in an extensive and sophisticated research program operated by Continental Oil Company. Participation in this program will provide valuable technology related to the exploration for and production of petroleum, natural gas and metallic minerals.

Management's Analysis of Financial Results

Earnings

Net earnings for 1978 were \$106.6 million, 7.8% higher than the \$98.9 million earned in 1977. Net earnings per common share amounted to \$5.61 compared to the \$5.22 per share earned in the same period last year. This gain was attributable to higher net revenues and a decline in the effective income tax rate, although these factors were partially offset by increased exploration and operating expenses and higher dry hole and abandonment costs. Funds generated from operations rose by 7.8% to \$203.6 million or \$10.72 per common share.

Dividends on common shares were 40 cents per share for the first

three quarters of 1978 and 50 cents per share for the final quarter, resulting in a total distribution of \$1.70 per share for the year. The total dividend declared in 1977 was \$1.54 per common share. Regular quarterly dividends totalling \$2.50 per share for the year were declared on preferred shares.

The rate of return on total capital employed declined from 17.3% in 1977 to 16.4% in 1978 while the rate of return on shareholders' equity decreased from 26.5% in 1977 to 24.0% in 1978 (the basis of calculation of these returns is explained in the Notes to the Ten Year Financial Review). These declines reflect continuing rapid

growth in annual investment and moderate growth in earnings.

Revenues

Gross domestic production revenues rose \$49.6 million to total \$519.1 million in 1978 as the impact of higher prices for crude oil and natural gas in Canada more than offset lower sales volumes. The major components of production revenues for 1978 and comparative data for 1977 are provided in the accompanying table. Details of the changes in production volumes and sales prices are provided in the production section of the report.

Net domestic production revenues totalled \$347.5 million, a gain of 9.9% from last year.

Production Revenues

(Thousands of dollars)

	Domestic						Foreign		Total	
	Gross Production Revenues		Royalties		Net Production Revenues		Net Production Revenues		Net Production Revenues	
	1978	1977	1978	1977	1978	1977	1978	1977	1978	1977
Crude Oil.....	\$212,162	\$180,147	\$ 71,118	\$ 58,823	\$141,044	\$121,324	\$15,352	\$26,677	\$156,396	\$148,001
Natural Gas Liquids	70,748	73,785	25,062	25,365	45,686	48,420	9	16	45,695	48,436
Natural Gas.....	211,953	193,854	74,261	68,375	137,692	125,479	71	91	137,763	125,570
Sulphur.....	7,228	5,214	1,151	785	6,077	4,429	—	—	6,077	4,429
Processing Non-Owned Gas	16,986	16,516	—	—	16,986	16,516	—	—	16,986	16,516
Total	\$519,077	\$469,516	\$171,592	\$153,348	\$347,485	\$316,168	\$15,432	\$26,784	\$362,917	\$342,952

Domestic royalties as a percentage of gross revenues were unchanged from the prior year at an average of 33%. Net foreign production revenues amounted to \$15.4 million, a decrease of \$11.4 million from 1977 as a result of lower Indonesian production volumes. Operating revenues from pipe line and product trading operations were up 6.3% to \$20.0 million. Investment and other income, at \$11.0 million, increased \$3.3 million from 1977.

Expenses

Expenses, exclusive of income taxes, totalled \$191.1 million, an increase of 10.9% from the prior year. Petroleum exploration expenses rose 18.0% to \$22.9 million chiefly due to greater domestic geophysical activity and the commencement of an exploration program in Australia. Dry hole and

abandonment charges increased 6.1% to \$29.8 million. Petroleum production expenses advanced by \$8.8 million to \$68.0 million as a result of the operation of additional Canadian properties, increased property and mineral taxes, and inflationary pressures on costs. Other exploration and business development expense declined 21% to \$5.0 million primarily due to lower expenditures for coal, mineral and oil sands projects. Aggregate charges for depletion, depreciation and amortization were \$46.8 million, 8.0% higher than 1977.

Government Royalties and Taxes

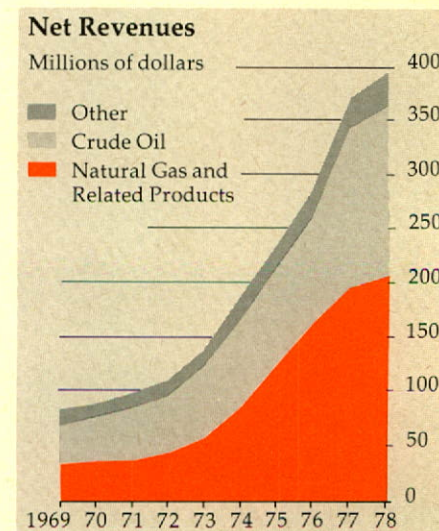
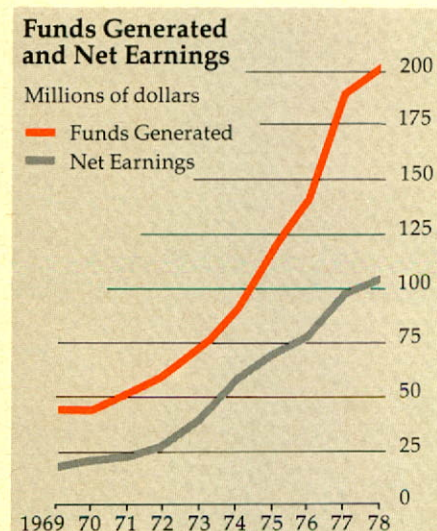
The provision for current and deferred income taxes of \$96.2 million was \$2.0 million lower than in 1977. The income tax provision in 1978 represents an effective rate of

47.4% of pre-tax earnings compared with 49.8% in the previous year. Details of the income tax provisions are included in Note 6 to the Consolidated Financial Statements.

In addition, during the year the Company paid \$184.6 million in royalties to governments and \$16.4 million in operating taxes and other assessments. These amounts represent an increase over 1977 of 10.5% and 9.8% respectively.

Capital Expenditures

Capital expenditures advanced 25% to total \$130.7 million in 1978, compared with \$104.9 million in 1977. This increase in spending was the result of more active drilling programs in Canada and greater outlays for Canadian undeveloped oil and gas rights, particularly in the West Pembina area of Alberta, and was partially offset by decreased



Comparative Review of Quarterly Financial Results

(Thousands of dollars, except per share amounts)

	Net Production Revenues			Net Earnings			Net Earnings Per Share	
	1978	1977	Percent Increase (Decrease)	1978	1977	Percent Increase (Decrease)	1978	1977
First Quarter	\$ 93,125	\$ 84,704	9.9	\$ 28,237	\$26,072	8.3	\$1.49	\$1.38
Second Quarter	84,806	81,480	4.1	26,357	23,143	13.9	1.38	1.22
Third Quarter	85,573	81,744	4.7	24,675	22,236	11.0	1.31	1.17
Fourth Quarter	99,413	95,024	4.6	27,344	27,489	(0.5)	1.43	1.45
Total Year.....	\$362,917	\$342,952	5.8	\$106,613	\$98,940	7.8	\$5.61	\$5.22

foreign exploratory drilling expenditures. A summary of capital expenditures is provided in the Ten Year Financial Review on Page 30.

Financial Position

Funds generated from operations and other sources in 1978 were more than sufficient to cover capital expenditures, dividends, debt retirement and all other requirements for funds. Consequently, working capital rose by \$34.5 million to \$112.5 million. Included in other sources of funds is \$18.5 million representing payments received from gas purchasers who did not take delivery of the minimum volumes for 1978 as provided for in their contracts. Payments received for undelivered gas are treated as deferred revenue; neither the volumes nor revenues will be

included in the Company's operating results until the gas is delivered or the make-up period expires. Long term debt, including the portion due within one year, was reduced to \$56.2 million principally because of the rapid retirement schedule of the term payables incurred for the acquisition of properties in 1975. Shareholders' equity increased to \$482.0 million in 1978 due to the net addition of \$74.3 million in retained earnings. As a result of these changes, long term debt represented 10.4% of combined debt and equity capital at year end compared with 16.4% at the end of 1977.

During the year, the Company purchased 460 Series A preferred shares, leaving 14,937 outstanding at December 31, 1978. The number of outstanding common shares at December 31, 1978 was unchanged

from the prior year at 18,983,272.

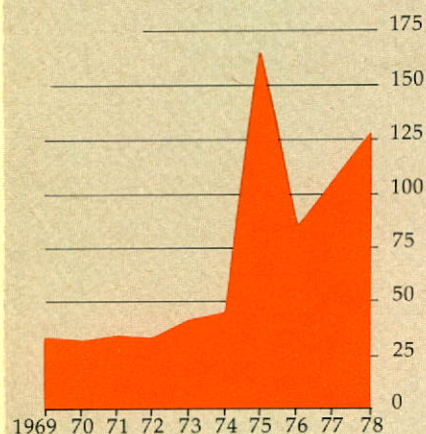
Quarterly Financial Results

Net production revenues showed gains over the prior year in each quarter of 1978 primarily due to higher average selling prices for crude oil and natural gas in Canada, partly offset by lower domestic and foreign sales volumes. Sales volumes for crude oil and natural gas liquids were down from the prior year in each quarter of 1978. Natural gas sales volumes declined, compared to 1977, in all but the fourth quarter.

The quarterly comparisons of net earnings with the prior year reflect the varying rates of revenue gains and the divergent impact of changes in the amount and timing of various expense items, particularly dry hole and abandonment costs.

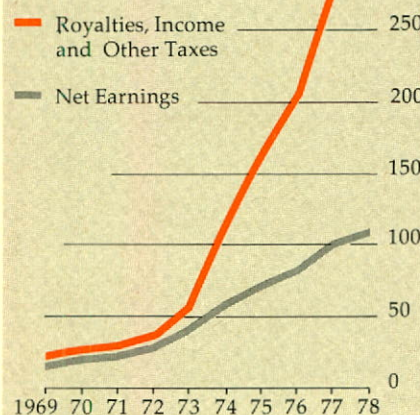
Capital Expenditures

Millions of dollars



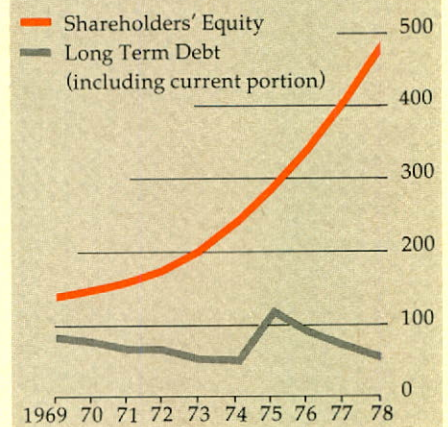
Government Royalties, Taxes and Net Earnings

Millions of dollars



Shareholders' Equity and Long Term Debt

Millions of dollars



Summary of Accounting Policies

A summary of the Company's major accounting policies is presented below to assist in the evaluation of the financial statements and other data contained in this report.

Consolidation Basis

The consolidated financial statements include the accounts of Hudson's Bay Oil and Gas Company Limited and its subsidiaries, all of which are wholly-owned.

Foreign Currency Translation

Accounts of foreign operations are stated in Canadian dollars. Current assets and liabilities are translated at year end rates of exchange. Income accounts and non-current assets and liabilities are generally translated at rates in effect when acquired or incurred. Gains or losses on translation of foreign currencies, though not material, are included in net earnings.

Oil and Gas Interests

The Company follows a form of the successful efforts method of accounting for its oil and gas interests. The majority of the Company's exploration and production activities related to oil and gas are conducted jointly with others and accordingly the accounts reflect only the Company's proportionate interest in such activities.

Costs of oil and gas rights are capitalized when acquired. A regular charge is made to earnings for amortization of undeveloped oil and gas rights. The amortization rates for 1978 and 1977 were 8% for

Canadian rights and 15% for foreign rights.

When undeveloped rights are surrendered their original cost is charged against the accumulated amortization. When undeveloped rights are proven to be productive, the original cost is transferred to the developed oil and gas rights account and charged to earnings over the producing life of the property by annual provisions for depletion calculated on the unit of production method, based on reserves estimated by the Company's reservoir engineering staff.

Exploration expenses, including geological and geophysical costs, are charged to earnings as incurred. All costs of drilling wells initially are capitalized. If, on completion, a well is not capable of commercial production its cost is written off immediately. The costs of all offshore exploratory wells are written off immediately unless reserves are found which are expected to be developed for commercial production within a reasonable period of time. The costs of successful wells, other than equipment costs, are depleted on the unit of production method in the same manner as the cost of developed oil and gas rights.

Other Interests

Oil sands and mineral rights are amortized in the same manner as undeveloped oil and gas rights.

Exploration and project development costs for oil sands, minerals, coal and other new business development projects are charged to earnings as incurred, but when the commercial viability of a project has been established all subsequent expenditures thereon are capitalized.

Plant and Equipment

Plant and equipment costs are depreciated on the straight line method over the useful lives of the assets, with the exception of certain pipe line assets which are depreciated on the unit of throughput method.

The principal annual straight line rates for 1978 and 1977 were:

Lease and well equipment . . . 8%

Plants and related facilities. . . 5%

Major trunk pipe lines 4%

Gains or losses on disposal of plant and equipment are credited or charged to accumulated depreciation. However, on the disposal of an entire property unit the gain or loss is credited or charged to earnings.

Renewals or replacements which improve or extend the life of existing properties are capitalized. Those of a routine nature as well as maintenance and repairs are charged to earnings.

Deferred Revenue

Payments received for undelivered gas are deferred and are taken into income when deliveries are made or the make-up period expires. Proceeds from sale of crude oil in excess of production entitlements under production-sharing contracts are deferred and taken into income as earned.

Consolidated Statements of Earnings

Years Ended December 31, 1978 and 1977

	1978	1977
	(Thousands of dollars)	
Revenues		
Net production revenues	\$362,917	\$342,952
Pipe line and product trading revenues	19,965	18,789
Investment and other income	11,040	7,692
	<u>393,922</u>	<u>369,433</u>
Expenses		
Petroleum exploration	22,895	19,397
Petroleum production	68,040	59,276
Pipe line and product trading	4,805	4,458
Other exploration and business development	5,012	6,334
General administrative	9,021	8,035
Depletion	17,470	17,101
Depreciation	16,697	15,157
Amortization of undeveloped rights	12,651	11,083
Dry holes and abandonments	29,801	28,087
Interest (Note 4)	2,915	3,192
Other	1,796	193
	<u>191,103</u>	<u>172,313</u>
Earnings Before Income Taxes	<u>202,819</u>	<u>197,120</u>
Income Taxes (Note 6)		
Current	74,779	79,355
Deferred	21,427	18,825
	<u>96,206</u>	<u>98,180</u>
Net Earnings	<u>\$106,613</u>	<u>\$ 98,940</u>
Net Earnings Per Common Share (Note 10)	<u>\$ 5.61</u>	<u>\$ 5.22</u>

Consolidated Statements of Retained Earnings

Years Ended December 31, 1978 and 1977

	1978	1977
	(Thousands of dollars)	
Retained earnings — January 1	\$310,923	\$241,294
Net earnings	106,613	98,940
	<u>417,536</u>	<u>340,234</u>
Dividends declared		
Preferred shares	38	136
Common shares	32,272	29,175
	<u>32,310</u>	<u>29,311</u>
Retained earnings — December 31	<u>\$385,226</u>	<u>\$310,923</u>

Consolidated Balance Sheets

December 31, 1978 and 1977

	1978	1977
	(Thousands of dollars)	
ASSETS		
Current Assets		
Cash, including time deposits (Note 5)	\$ 16,107	\$ 8,800
Short term investments at cost, which approximates market (Note 5)	89,437	79,469
Accounts receivable (Note 2)	157,963	134,955
Inventories		
Products at lower of average cost and net realizable value	4,161	5,662
Materials and supplies at or below average cost	10,289	4,805
	<u>277,957</u>	<u>233,691</u>
Property, Plant and Equipment — Net (Notes 1 and 3)	<u>560,301</u>	<u>507,384</u>
Investments, Advances and Other Assets		
Investments and advances at cost	2,309	2,605
Deposits, deferred charges and miscellaneous assets at cost	10,123	8,057
	<u>12,432</u>	<u>10,662</u>
	<u>\$850,690</u>	<u>\$751,737</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current Liabilities		
Accounts payable and accrued liabilities (Note 2)	\$130,002	\$118,963
Income and other taxes payable	8,090	11,268
Dividends payable (Note 2)	9,501	7,603
Long term debt due within one year (Note 4)	17,820	17,821
	<u>165,413</u>	<u>155,655</u>
Long Term Debt (Note 4)	<u>38,363</u>	<u>62,019</u>
Deferred Revenue	<u>19,496</u>	<u>2,357</u>
Deferred Income Taxes (Note 6)	<u>145,380</u>	<u>123,953</u>
Shareholders' Equity		
Share capital (Note 7)		
Authorized		
Preferred — \$50.00 par value — 915,397 shares		
Common — \$ 2.50 par value — 25,000,000 shares		
Issued and Outstanding		
5% Cumulative Redeemable Convertible		
Preferred Shares Series A — 14,937		
(15,397 in 1977)	747	770
Common Shares — 18,983,272	47,458	47,458
Contributed surplus (Note 7)	48,607	48,602
Retained earnings	385,226	310,923
	<u>482,038</u>	<u>407,753</u>
Commitments and Contingencies (Note 8)	<u>\$850,690</u>	<u>\$751,737</u>

Approved on behalf of the Board:

D. R. Olson Director

R. F. Haskayne Director

Consolidated Statements of Changes in Financial Position

Years Ended December 31, 1978 and 1977

	1978	1977
	(Thousands of dollars)	
Sources of Funds		
Net earnings	\$106,613	\$ 98,940
Charges (credits) to earnings not involving funds:		
Depreciation, depletion and amortization	46,818	43,341
Dry holes and abandonments	29,801	28,087
Deferred income taxes	21,427	18,825
Other — net	(1,041)	(233)
Funds generated from operations	203,618	188,960
Advances on future natural gas sales	18,502	—
Proceeds from sales of properties and investments	2,140	1,313
Total Sources of Funds	<u>224,260</u>	<u>190,273</u>
Uses of Funds		
Expenditures for property, plant and equipment	130,704	104,853
Reduction of long term debt	23,656	19,830
Dividends declared	32,310	29,311
Miscellaneous — net	3,082	4,286
Total Uses of Funds	<u>189,752</u>	<u>158,280</u>
Increase in Working Capital	<u>\$ 34,508</u>	<u>\$ 31,993</u>
Working Capital Changes		
Increase (Decrease) in Current Assets		
Cash and short term investments	\$ 17,275	\$ 26,108
Accounts receivable	23,008	23,446
Inventories	3,983	(70)
	<u>44,266</u>	<u>49,484</u>
Increase (Decrease) in Current Liabilities		
Accounts payable and accrued liabilities	11,039	10,950
Income and other taxes payable	(3,178)	6,262
Dividends payable	1,898	366
Long term debt due within one year	(1)	(87)
	<u>9,758</u>	<u>17,491</u>
Increase in Working Capital	<u>\$ 34,508</u>	<u>\$ 31,993</u>

Auditors' Report to Shareholders

We have examined the consolidated balance sheets of Hudson's Bay Oil and Gas Company Limited as at December 31, 1978 and 1977 and the consolidated statements of earnings, retained earnings and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the Company as at December 31, 1978 and 1977 and the results of its operations and the changes in its financial position for the years then ended in accordance with generally accepted accounting principles applied on a consistent basis.

Peax, Marwick, Mitchell & Co.

Calgary, Canada
January 26, 1979

Chartered Accountants

Notes to the Consolidated Financial Statements

Note 1 — Summary of Accounting Policies

The principal accounting policies followed by the Company and its subsidiaries are detailed on Page 23.

Note 2 — Amounts Owing To And From Affiliated Companies

Accounts receivable include \$20,355,000 (1977 — \$26,246,000) due from Continental Oil Company and its subsidiaries and accounts payable include \$104,000 (1977 — \$178,000) due to Continental Oil Company. The foregoing balances resulted from transactions in the normal course of business with most of the receivables relating to December sales of crude oil and natural gas liquids. Dividends payable include \$5,020,000 (1977 — \$4,016,000) due to Continental Oil Company and \$2,004,000 (1977 — \$1,603,000) due to Hudson's Bay Company.

Note 3 — Property, Plant and Equipment

	1978			1977		
	Cost	Accumulated Depreciation, Depletion and Amortization	Net	Cost	Accumulated Depreciation, Depletion and Amortization	Net
Undeveloped oil and gas rights.....	\$154,689	\$ 36,602	\$118,087	\$141,464	\$ 33,876	\$107,588
Developed oil and gas rights.....	99,044	39,948	59,096	95,197	32,380	62,817
Oil and gas rights on Siebens Oil & Gas Ltd. lands (1).....	1	—	1	1	—	1
Wells and related facilities.....	378,859	170,552(2)	208,307	330,654	155,832(2)	174,822
Plants and related facilities.....	203,526	62,562	140,964	182,257	53,800	128,457
Pipe line and product trading facilities.....	44,514	17,496	27,018	42,971	15,725	27,246
Other.....	10,475	3,647	6,828	10,515	4,062	6,453
Total.....	<u>\$891,108</u>	<u>\$330,807</u>	<u>\$560,301</u>	<u>\$803,059</u>	<u>\$295,675</u>	<u>\$507,384</u>

(1) The Company has an exclusive right until December 31, 1999 to lease any or all of 1,899,000 acres of petroleum and natural gas rights owned in fee by Siebens Oil & Gas Ltd. A nominal value of \$1,000 has been assigned to these rights.

(2) Includes depletion of \$110,097,000 (1977 — \$100,231,000) and depreciation of \$60,455,000 (1977 — \$55,601,000).

Note 4 — Long Term Debt

	1978	1977
	(Thousands of dollars)	
FIRST MORTGAGE SINKING FUND BONDS		
5½% Series D, due June 15, 1983 — remaining sinking fund requirements — \$1,438,000 in 1982 and \$7,500,000 at maturity.....	\$ 8,938	\$12,713
7% Series E, due January 3, 1987 — remaining sinking fund requirements — \$344,000 in 1981, \$600,000 per annum 1982 to 1987.....	3,944	4,577
7.85% Series F, due April 15, 1994 (U.S. \$23,673,000 issued and pledged to secure payment of the 7.85% Collateral Trust Bonds due 1994).....	—	—
Total.....	<u>12,882</u>	<u>17,290</u>
COLLATERAL TRUST BONDS		
7.85% Collateral Trust Bonds, due April 15, 1994.....	25,481	26,909
U.S. \$23,673,000 recorded at the exchange rate in effect at date of issue. (At the exchange rate prevailing on December 31, 1978 this liability would amount to \$28,076,000.) Remaining sinking fund requirements — U.S. \$1,173,000 in 1980, U.S. \$1,250,000 per annum 1981 to 1993 and U.S. \$6,250,000 at maturity.		
OTHER		
Non-interest bearing unsecured term payable — due June 1, 1979.....	17,820	35,641
	<u>56,183</u>	<u>79,840</u>
Less amounts due within one year.....	17,820	17,821
Total.....	<u>\$38,363</u>	<u>\$62,019</u>

The aggregate payments of principal required on the foregoing long term debt in each of the next five years are as follows: \$17,820,000 in 1979; U.S. \$1,173,000 in 1980; \$1,594,000 (including U.S. \$1,250,000) in 1981; \$3,288,000 (including U.S. \$1,250,000) in 1982 and \$9,350,000 (including U.S. \$1,250,000) in 1983. Interest expense of \$2,915,000 (1977 – \$3,192,000) includes interest of \$3,132,000 (1977 – \$3,209,000) on long term debt and other interest of \$(217,000) (1977 – \$(17,000)).

Note 5 – Comparative Figures

For purposes of comparison the 1977 figures for cash and short term investments have been reclassified to conform with the 1978 presentation.

Note 6 – Income Taxes

The provisions for income taxes in 1978 and 1977 exceed the amounts which would have been expected if it were assumed that the reported pre-tax earnings were subject to the Canadian Federal statutory income tax rate for the year. The principal reasons for the differences between such "expected" income tax provisions and the amounts actually provided were as follows:

	1978		1977	
	Amount	Percent of Pre-tax Earnings	Amount	Percent of Pre-tax Earnings
Computed "expected" income taxes.....	\$93,297	46.0	\$90,675	46.0
Increase (decrease) in income taxes resulting from:				
Non-deductibility of royalties and other payments to the Crown.....	71,620	35.3	65,918	33.5
Less related allowances and rebates:				
Federal.....	(46,734)	(23.0)	(43,200)	(21.9)
Provincial.....	(6,963)	(3.5)	(6,463)	(3.3)
	17,923	8.8	16,255	8.3
Allowance for earned depletion.....	(15,245)	(7.5)	(12,207)	(6.2)
Incremental provincial taxes.....	2,271	1.1	2,155	1.1
Incremental foreign taxes.....	715	.3	3,964	2.0
Non-taxable provincial incentives.....	(2,938)	(1.4)	(2,930)	(1.5)
Other – net.....	183	.1	268	.1
	2,909	1.4	7,505	3.8
Actual income tax provision.....	\$96,206	47.4	\$98,180	49.8

The foregoing income tax provisions include deferred income taxes of \$21,427,000 in 1978 and \$18,825,000 in 1977. The amount of deferred taxes, by the principal items which gave rise to such taxes, was as follows:

	1978	1977
	(Thousands of dollars)	
Oil and gas rights.....	\$ 4,641	\$ 4,088
Depreciable property, plant and equipment.....	5,747	5,069
Drilling and exploration costs.....	9,995	8,876
Other – net.....	1,044	792
Deferred income taxes.....	\$21,427	\$18,825

The deferred income taxes arose because the rates of write-off of certain costs for financial reporting purposes differed from the following rates of write-off permitted for tax purposes:

- (i) 100% of expenditures for "Canadian exploration expense", which includes all geological and geophysical expenses, dry holes and abandonments, and costs of drilling wells which resulted in the discovery of new pools of hydrocarbons or which are not expected to come into production in commercial quantities within one year of the date of completion;
- (ii) 30% of the unclaimed balance of expenditures for "Canadian development expense" which includes costs of drilling all other wells and the acquisition costs of petroleum and natural gas rights;
- (iii) the unclaimed balance of expenditures for "foreign exploration and development expense" on operations conducted directly by the Company in foreign countries to the extent of foreign production income or 10% of such unclaimed balance, whichever is greater; and
- (iv) varying rates of "capital cost allowance" on depreciable assets.

In determining the current income taxes payable the Company deducted the maximum amount of all costs that are claimable plus all the depletion "earned" and a 25% resource allowance in lieu of royalties and other non-deductible payments to the Crown. Foreign incorporated subsidiaries of the Company did not generate any taxable income in 1978 or 1977 and in each case deductible costs will be carried forward for application against future taxable income of these subsidiaries.

Note 7 — Share Capital

The 5% Cumulative Redeemable Convertible Preferred Shares Series A are redeemable at the option of the Company at \$51.00 per share. During 1978, the Company purchased 460 of its 5% Cumulative Redeemable Convertible Preferred Shares. During 1977, 56,145 common shares were issued on conversion of the same number of preferred shares under a conversion option that expired in 1977. The excess of the par value over the purchase price of the preferred shares purchased in 1978 amounted to \$5,000 and the excess of the par value of the preferred shares over the par value of the common shares into which they were converted in 1977 amounted to \$2,668,000. The excess amounts were credited to Contributed Surplus in 1978 and 1977 respectively.

Note 8 — Commitments and Contingencies

The Company in the normal course of business has entered into a long term agreement to lease office space in Calgary. This lease, which will expire in 1996 if the ten year renewal option is not exercised, has a minimum rent payable of \$1,847,000 for 1979; \$1,894,000 for 1980; \$1,914,000 for 1981; \$1,880,000 for 1982 and \$1,834,000 for 1983.

Note 9 — Federal Anti-Inflation Legislation

The federal program of restraint on prices and profits, dividends and compensation was discontinued during 1978. The Company was exempt from the anti-inflation guidelines on prices and profits, but was subject to and complied with controls on compensation and dividends.

Note 10 — Net Earnings Per Common Share

Net earnings per common share are based on the monthly weighted average number of common shares outstanding and earnings after deduction of preferred share dividends on the 5% Cumulative Redeemable Convertible Preferred Shares Series A. Unaudited quarterly earnings per share information is included in the table on Page 22.

Note 11 — Remuneration of Directors and Officers

Aggregate remuneration paid or payable in 1978 to the Company's directors and officers amounted to \$61,000 and \$968,000 respectively (1977 — \$60,000 and \$1,051,000). During the year there was a total of 13 directors and 12 officers of whom three served in both capacities. No remuneration was paid or payable to directors or officers of the Company by any of its subsidiaries.

Note 12 — Retirement Plan

The Company has a contributory retirement plan which is available to all permanent employees. At June 30, 1978 the date of the last actuarial evaluation, unfunded liabilities amounted to \$739,000 which are being amortized over appropriate periods.

Note 13 — Approval of Consolidated Financial Statements

The consolidated financial statements were approved by the Committee on Audits and Financial Controls on January 26, 1979.

Ten Year Financial Review (1)

	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
Consolidated Statement of Earnings										
Net Production Revenues										
Canada — Crude Oil	\$141,044	121,324	100,428	91,785	85,333	66,568	52,340	47,501	40,416	36,580
— Natural Gas and Associated Products	\$206,441	194,844	160,624	123,184	83,452	55,878	43,573	36,850	35,346	33,266
Foreign	\$ 15,432	26,784	234	—	—	—	—	—	—	—
Pipe Line and Product Trading Revenues	\$ 19,965	18,789	16,324	13,678	14,415	13,971	12,720	10,956	8,428	6,649
Investment and Other Income	\$ 11,040	7,692	7,218	6,741	6,895	3,457	2,197	2,665	4,154	4,867
	\$393,922	369,433	284,828	235,388	190,095	139,874	110,830	97,972	88,344	81,362
Expenses										
Petroleum Exploration	\$ 22,895	19,397	14,857	13,724	13,100	10,576	9,410	8,526	7,981	8,890
Petroleum Production	\$ 68,040	59,276	45,972	38,642	32,148	26,708	21,336	18,880	15,629	13,416
Other Operating and Administrative	\$ 20,634	19,020	15,171	11,120	8,367	7,308	6,784	6,736	5,488	4,817
Depletion, Depreciation, Amortization & Dry Holes & Abandonments	\$ 76,619	71,428	53,402	34,805	30,077	29,120	26,628	23,338	21,484	19,261
Interest	\$ 2,915	3,192	3,462	3,519	3,674	3,924	4,128	4,539	5,478	5,588
	\$191,103	172,313	132,864	101,810	87,366	77,636	68,286	62,019	56,060	51,972
Earnings Before Income Taxes	\$202,819	197,120	151,964	133,578	102,729	62,238	42,544	35,953	32,284	29,390
Income Taxes — Current	\$ 74,779	79,355	63,260	47,783	40,825	16,122	9,242	7,473	7,854	2,360
— Deferred	\$ 21,427	18,825	10,029	16,046	3,552	6,746	5,553	5,325	4,260	8,147
Net Earnings	\$106,613	98,940	78,675	69,749	58,352	39,370	27,749	23,155	20,170	18,883
Per Common Share	\$ 5.61	5.22	4.15	3.68	3.07	2.07	1.44	1.18	1.02	0.95
Funds Generated from Operations	\$203,618	188,960	140,074	120,168	91,502	74,623	59,811	51,180	44,607	44,794
Per Common Share	\$ 10.72	9.97	7.39	6.34	4.83	3.93	3.18	2.72	2.36	2.37
Rate of Return										
On Total Capital Employed (2)	16.4%	17.3%	15.2%	17.4%	16.7%	12.7%	9.8%	8.7%	8.1%	8.3%
On Shareholders' Equity (3)	24.0%	26.5%	25.2%	26.4%	26.4%	20.9%	16.5%	15.0%	14.0%	14.0%
Major Balance Sheet Items										
Working Capital	\$112,544	78,036	46,043	35,944	55,448	34,023	23,434	15,778	19,486	25,408
Property, Plant and Equipment — Net	\$560,301	507,384	474,887	444,736	314,241	300,093	288,063	279,462	265,103	251,019
Long Term Debt	\$ 38,363	62,019	81,849	102,361	52,003	57,983	66,648	68,417	75,334	83,061
Deferred Income Taxes	\$145,380	123,953	105,128	95,099	79,053	75,501	68,755	63,429	58,104	53,844
Shareholders' Equity	\$482,038	407,753	338,123	286,696	240,792	200,608	175,622	160,184	148,590	139,067
Capital Expenditures										
Petroleum Exploration and Development										
Undeveloped Oil and Gas Rights — Canada ..	\$ 26,590	13,135	8,083	57,930	7,899	7,176	6,439	3,920	5,547	14,171
— Foreign ..	\$ 364	510	269	3,232	5,067	—	—	—	—	—
Exploratory Drilling — Canada	\$ 30,811	24,742	14,010	9,901	8,641	6,789	8,117	5,182	5,286	4,031
— Foreign	\$ 6,564	11,946	7,669	4,155	603	—	—	—	—	—
Total Petroleum Exploration Capital Expenditures	\$ 64,329	50,333	30,031	75,218	22,210	13,965	14,556	9,102	10,833	18,202
Developed Oil and Gas Rights — Canada ..	\$ —	6	(1,831)	43,865	—	—	31	147	111	—
— Foreign	\$ —	(1,406)	14,025	—	—	—	—	—	—	—
Development Drilling and Production Facilities — Canada	\$ 38,586	31,635	21,385	20,561	10,219	16,931	12,875	10,436	8,821	10,893
— Foreign	\$ 2,754	2,453	371	5	—	—	—	—	—	—
Plants and Related Facilities	\$ 21,362	16,462	18,579	21,720	10,976	4,718	9,554	15,524	15,462	8,663
Total Petroleum Capital Expenditures	\$127,031	99,483	82,560	161,369(4)	43,405	35,614	37,016	35,209	35,227	37,758
Other Capital Expenditures	\$ 3,673	5,370	2,272	5,049	2,280	7,345	2,321	4,150	2,137	1,921
Total Capital Expenditures	\$130,704	104,853	84,832	166,418	45,685	42,959	39,337	39,359	37,364	39,679
Exploration Expenses										
Petroleum — Canada	\$ 17,315	15,382	12,868	11,723	12,395	10,214	9,410	8,526	7,981	8,890
— Foreign	\$ 5,580	4,015	1,989	2,001	705	362	—	—	—	—
Total Petroleum Expenses	\$ 22,895	19,397	14,857	13,724	13,100	10,576	9,410	8,526	7,981	8,890
Other Exploration & Business Development	\$ 5,012	6,334	5,322	1,924	877	774	279	446	340	548
Total Exploration Expenses	\$ 27,907	25,731	20,179	15,648	13,977	11,350	9,689	8,972	8,321	9,438
Total Capital Expenditures and Exploration Expenses										
Petroleum	\$149,926	118,880	97,417	175,093(4)	56,505	46,190	46,426	43,735	43,208	46,648
Other	\$ 8,685	11,704	7,594	6,973	3,157	8,119	2,600	4,596	2,477	2,469
Total	\$158,611	130,584	105,011	182,066	59,662	54,309	49,026	48,331	45,685	49,117
Shareholders and Dividends										
Preferred Shares										
Number of Shares Outstanding (thousands)	15	15	72	76	77	77	77	600	600	600
Number of Shareholders	151	167	568	589	581	599	640	2,593	2,625	2,677
Market Price Per Share — High	\$ 37.00	42.25	40.50	40.00	51.00	63.00	60.00	62.50	62.50	60.00
— Low	\$ 33.75	34.12	31.50	28.50	27.00	50.00	47.50	49.50	43.00	50.75
Dividends Declared Per Share — in equal quarterly amounts totalling	\$ 2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Common Shares										
Number of Shares Outstanding (thousands)	18,983	18,983	18,927	18,922	18,922	18,922	18,922	18,294	18,294	18,294
Number of Shareholders	7,494	8,403	8,578	9,079	9,363	9,803	10,135	9,717	9,751	8,688
Market Price Per Share — High	\$ 56.00	48.75	41.00	36.50	47.75	57.50	57.50	49.50	51.00	45.00
— Low	\$ 40.00	33.12	31.50	17.00	15.50	40.25	38.25	37.25	30.87	33.00
Dividends Declared Per Share										
First Quarter	\$ 0.40	0.38	0.35	0.25	—	—	—	—	—	—
Second Quarter (First Half)	\$ 0.40	0.38	0.35	0.30	0.45	0.35	0.30	0.25	0.25	0.25
Third Quarter	\$ 0.40	0.38	0.35	0.35	—	—	—	—	—	—
Fourth Quarter (Second Half)	\$ 0.50	0.40	0.38	0.35	0.50	0.40	0.30	0.30	0.25	0.25
Total	\$ 1.70	1.54	1.43	1.25	0.95	0.75	0.60	0.55	0.50	0.50

Ten Year Operating Review (1)

	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969
Production Volumes Before Royalty (Barrels per day)										
Crude Oil — Canada	48,394	49,538	49,234	53,012	62,295	67,410	62,586	57,669	53,727	49,973
— Foreign	7,338	9,900	56	—	—	—	—	—	—	—
Total	55,732	59,438	49,290	53,012	62,295	67,410	62,586	57,669	53,727	49,973
Condensate	12,528	14,428	14,503	17,820	19,556	20,282	19,123	14,207	14,189	12,017
LPG	6,614	7,022	6,240	7,131	6,896	6,588	4,886	3,606	3,243	2,258
Total Crude Oil and Natural Gas Liquids										
Before Royalty	74,874	80,888	70,033	77,963	88,747	94,280	86,595	75,482	71,159	64,248
After Royalty	47,596	53,983	47,272	53,013	61,718	77,854	73,279	63,809	60,168	54,426
Natural Gas Sales (Millions of cubic feet per day)										
Before Royalty	377.3	408.7	417.9	419.0	436.6	434.7	421.4	392.8	378.3	336.6
After Royalty	251.6	267.8	278.5	305.4	348.8	363.8	352.3	328.8	317.0	281.7
Sulphur (Long tons per day)										
Production — Before Royalty	1,316	1,410	1,367	1,585	1,769	1,943	1,930	1,485	1,482	1,126
— After Royalty	1,102	1,180	1,141	1,325	1,474	1,627	1,615	1,243	1,246	955
Sales — Before Royalty	1,360	1,180	757	856	1,152	1,195	1,018	973	1,090	896
— After Royalty	1,142	1,001	637	719	967	1,000	852	814	917	760
Pipe Line										
Throughput (Barrels per day)	106,421	112,093	113,191	116,595	111,969	114,524	112,799	90,463	81,930	70,135
Miles of Trunk Lines	450	450	450	450	450	450	420	420	420	420
Miles of Gathering Facilities	492	470	465	456	459	456	431	450	450	425
Well Data										
Net Exploratory Wells Completed										
Canada — Oil	5.8	12.5	2.9	2.5	5.6	7.7	6.1	5.5	2.7	4.0
— Gas	21.0	19.7	15.2	11.2	16.5	16.9	15.3	3.7	8.1	4.9
— Dry	26.2	40.4	20.1	24.7	17.5	35.5	29.2	23.0	24.0	43.1
Total	53.0	72.6	38.2	38.4	39.6	60.1	50.6	32.2	34.8	52.0
Foreign — Oil	0.5	0.2	—	0.5	—	—	—	—	—	—
— Gas	0.4	0.1	0.2	0.5	—	—	—	—	—	—
— Dry	1.2	2.5	2.5	1.9	—	—	—	—	—	—
Total	2.1	2.8	2.7	2.9	—	—	—	—	—	—
Net Development Wells Completed										
Canada — Oil	78.3	64.4	43.5	28.9	20.3	54.0	72.6	21.8	23.8	31.5
— Gas	140.9	128.0	79.0	46.7	49.1	64.0	44.7	10.6	13.4	19.8
— Dry	47.9	39.0	25.2	10.6	9.7	13.4	14.2	9.5	12.3	6.7
Total	267.1	231.4	147.7	86.2	79.1	131.4	131.5	41.9	49.5	58.0
Foreign — Oil	1.1	2.5	1.5	—	—	—	—	—	—	—
— Gas	—	—	0.1	—	—	—	—	—	—	—
— Dry	0.1	0.5	—	—	—	—	—	—	—	—
Total	1.2	3.0	1.6	—	—	—	—	—	—	—
Gross Wells Completed										
Canada	657	631	383	281	303	501	381	199	225	244
Foreign	28	40	17	9	—	—	—	—	—	—
Total	685	671	400	290	303	501	381	199	225	244
Oil and Gas Rights — Net (Thousands of acres)										
Canada — Undeveloped	13,277	14,453	15,485	17,691	21,477	24,068	26,805	28,113	22,157	22,319
— Developed	899	864	768	729	638	596	570	544	534	512
Total	14,176	15,317	16,253	18,420	22,115	24,664	27,375	28,657	22,691	22,831
Foreign — Undeveloped	5,458	5,949	2,011	563	139	—	—	—	—	—
— Developed	2	2	2	—	—	—	—	—	—	—
Total	5,460	5,951	2,013	563	139	—	—	—	—	—
Reserves (5)										
Crude Oil (Millions of barrels)										
Canada	184.3	198.0	212.0	243.1	270.3	273.3	310.1	330.4	332.4	335.1
Foreign	10.2	9.5	13.2	—	—	—	—	—	—	—
Total	194.5	207.5	225.2	243.1	270.3	273.3	310.1	330.4	332.4	335.1
Natural Gas Liquids (Millions of barrels)										
Canada	71.0	75.8	81.1	97.3	105.5	116.2	126.6	124.7	126.8	124.9
Natural Gas (Billions of cubic feet)										
Canada	3,413	3,379	3,373	3,670	3,660	3,766	3,822	3,781	3,821	3,785
Foreign	—	1	1	—	—	—	—	—	—	—
Total	3,413	3,380	3,374	3,670	3,660	3,766	3,822	3,781	3,821	3,785
Sulphur (Thousands of long tons)										
Canada	6,443	7,304	7,873	9,190	9,933	10,778	10,924	11,741	11,744	11,540
Employees										
Number of Employees	1,401	1,350	1,280	1,203	1,152	1,068	1,018	1,076	1,043	938
Salaries, Wages and Benefits	\$34,863	30,808	26,830	22,566	18,074	14,778	13,066	12,375	10,763	9,096

Notes:

- (1) All dollar amounts are in thousands except per share figures.
- (2) Expresses net earnings plus the after-tax cost of interest on long term debt, as a percentage of average total assets less current liabilities other than the current portion of long term debt.
- (3) Expresses net earnings as a percentage of average shareholders' equity.
- (4) Includes a \$98.3 million purchase of undeveloped and developed properties and related facilities.
- (5) Including royalty volumes and the participation interests of host governments.

Board of Directors At February 9, 1979

John E. Kircher	Stamford, Connecticut Chairman of the Board of Directors of the Company Deputy Chairman of the Board of Directors of Continental Oil Company
Ralph E. Bailey	Stamford, Connecticut Deputy Chairman of the Board of Directors of Continental Oil Company
Ian A. Barclay	Vancouver, British Columbia Chairman of the Board of Directors and Chief Executive Officer of British Columbia Forest Products Limited Director of Hudson's Bay Company
Howard W. Blauvelt	Stamford, Connecticut Chairman of the Board of Directors and Chief Executive Officer of Continental Oil Company
George H. Blumenauer	Hamilton, Ontario Chairman of the Board of Directors and President of Otis Elevator Company Limited
Richard F. Haskayne	Calgary, Alberta Executive Vice-President of the Company
Walter F. Light	Montreal, Quebec President and Director of Northern Telecom Limited
Gerald J. Maier	Calgary, Alberta Executive Vice-President of the Company
Donald S. McGiverin	Toronto, Ontario Vice-Chairman of the Board of Directors of the Company President and Director of Hudson's Bay Company
Michael B. Morris	Houston, Texas President of Operations (Petroleum) and Director of Continental Oil Company
Stanley G. Olson	Calgary, Alberta President and Chief Executive Officer of the Company
George T. Richardson	Winnipeg, Manitoba President of James Richardson & Sons, Limited Governor of Hudson's Bay Company
Samuel Schwartz	Stamford, Connecticut Senior Vice President, Administrative of Continental Oil Company

Committees of the Board of Directors

Executive Committee:

Messrs. Olson (Chairman), Blauvelt, Kircher, McGiverin

Committee on Audits and Financial Controls:

Messrs. Schwartz (Chairman), Blumenauer, McGiverin

Retirement Board:

Messrs. Blumenauer (Chairman), Burgis, Light, McGiverin, Olson

Compensation Committee:

Messrs. McGiverin (Chairman), Blauvelt, Kircher, Light

Officers

S. G. Olson	President
R. F. Haskayne	Executive Vice-President
G. J. Maier	Executive Vice-President
K. H. Burgis	Senior Vice-President
R. J. Hamilton	Vice-President, Exploration
K. W. Lloyd	Vice-President, Supply and Transportation
R. Sedgewick	Vice-President, Production
W. D. Storey	Vice-President, Corporate Services
L. B. Bannicke	General Counsel and Assistant Secretary
O. Humeniuk	Treasurer
W. E. Selby	Corporate Secretary
A. R. Travers	Controller

Other Senior Management

D. I. Beischel	Manager, Domestic Exploration
P. T. Black	General Manager, Minerals Exploration
F. Callaway	Manager, Corporate Planning
T. D. Doyle	General Manager, Minerals and Coal
A. Masuda	General Manager, Production
J. H. McKibbin	Manager, Oil Sands
K. A. McNeill	Manager, Employee Relations
D. L. Stauff	Manager, Information Systems

Hudson's Bay Oil and Gas Company Limited

Incorporated in 1926 under the Laws of Canada

Head Office

700 Second Street South West, Calgary, Alberta, Canada

Principal Subsidiary Companies (All Wholly-Owned)

Aurora Pipe Line Company
Hudbay Exploration, Inc.
Hudbay Mining Ltd.
Hudbay Oil (Australia) Ltd.
Hudbay Oil (Indonesia) Ltd.
Hudbay Oil International Ltd.

Transfer Agents

Common Shares

Montreal Trust Company,
Calgary, Montreal, Regina, Toronto, Vancouver and Winnipeg

Morgan Guaranty Trust Company of New York,
New York

Preferred Shares

Montreal Trust Company,
Calgary, Montreal, Regina, Toronto, Vancouver and Winnipeg

Stock Exchange Listings

Common Share Symbol: HBO

Toronto Stock Exchange
Montreal Stock Exchange
American Stock Exchange

Preferred Share Symbol: HBO.PR.A

Toronto Stock Exchange
Montreal Stock Exchange

Auditors

Peat, Marwick, Mitchell & Co., Calgary

Form 10-K

Copies of this report and the Annual Report on Form 10-K filed with the Securities and Exchange Commission of the United States of America are available free of charge by writing to the Corporate Secretary of the Company, 700 Second Street South West, Calgary, Alberta, Canada T2P 0X5.



Hudson's Bay Oil and Gas Company Limited Annual Report 1978