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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C.
20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended **December 31, 1988.**
Commission file number 0-8221

NORCEN ENERGY RESOURCES LIMITED
INCORPORATED: CANADA I.R.S. EMPLOYER IDENTIFICATION NO. 980031096-868
715 - 5th Avenue, S.W., Calgary, Alberta T2P 2X7
(403) 231-0111

Securities Registered Pursuant to Section 12(b) of the Act: None
Securities Registered Pursuant to Section 12(g) of the Act:
Multiple Voting Ordinary Shares, without par value
Subordinate Voting Ordinary Shares, without par value

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

State the aggregate market value of the voting stock held by non-affiliates of the Registrant:

Market value as of January 31, 1989, was \$741,126,088 Canadian excluding 10,262,950 Multiple Voting Ordinary Shares and 9,775,334 Subordinate Voting Ordinary Shares held by Noranda Inc.

Indicate the number of shares outstanding of each of the Registrant's classes of common stock, as of the latest practicable date:

Multiple Voting Ordinary Shares, without par value, outstanding at January 31, 1989:
27,352,333 shares

Subordinate Voting Ordinary Shares, without par value, outstanding at January 31, 1989:
31,305,740 shares

DOCUMENTS INCORPORATED BY REFERENCE

Description

Part of Form 10-K

Certain portions of the Proxy Circular
and Statement for the 1989
Annual Meeting

Part III



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THE DOLLAR AMOUNTS CONTAINED IN THIS REPORT ARE IN CANADIAN CURRENCY (CDN\$1 = U.S.\$ 0.8450 AT JANUARY 31, 1989) AND ARE PRESENTED IN ACCORDANCE WITH ACCOUNTING PRINCIPLES GENERALLY ACCEPTED IN CANADA.

Historic rates of exchange appear in Part II, Item 6 of this report. The effect of application of United States accounting principles upon net earnings and retained earnings appears in Note 15 to the Consolidated Financial Statements which is included in Part II, Item 8 of this report.

PART I

ITEMS 1 & 2. BUSINESS AND PROPERTIES

THE COMPANY

Norcen Energy Resources Limited (the "Company" or "Norcen") was formed under Alberta law as of October 28, 1975, and was continued under the Canada Business Corporations Act on April 15, 1977. The registered office of the Company and its executive office are at the Norcen Tower, 715 - 5th Avenue S.W., Calgary, Alberta, T2P 2X7. In this document, references to Norcen and the Company include the Company and its subsidiaries, unless the context otherwise indicates. The figures in this document are given, except where otherwise indicated, on a 100% basis for majority-owned subsidiaries.

Norcen is a major Canadian-owned natural resource enterprise with three business segments: oil and gas, propane marketing and mineral resources.

Through its core business, oil and gas, Norcen explores for, develops and produces hydrocarbons in Canada, the United States and the South Pacific, and owns and operates crude oil and natural gas pipeline transportation and distribution systems in Western Canada.

In propane marketing, the Company's wholly-owned subsidiary, Superior Propane Inc. ("Superior"), distributes propane across Canada.

In mineral resources, Norcen's principal assets include an 11% equity interest in Iron Ore Company of Canada ("IOC"), a royalty interest in iron ore production by IOC from mineral leases in Labrador and a 28% equity interest in M. A. Hanna Company ("Hanna").

At December 31, 1988, approximately 2,400 people were employed by Norcen of which 1,675 were employed by Superior.

The following table contains financial information for the indicated periods:

	Year ended December 31				
	1988	1987	1986	1985	1984
	(millions of dollars)				
Sales and other revenues					
Oil and gas ⁽¹⁾	\$359.0	\$393.5	\$325.9	\$465.1	\$443.0
Propane marketing	314.4	288.3	217.4	110.0	71.4
Mineral resources	48.0	42.1	53.3	46.0	45.0
Investment and other revenues	10.1	10.8	18.7	44.8	10.8
	<u>\$731.5</u>	<u>\$734.7</u>	<u>\$615.3</u>	<u>\$665.9</u>	<u>\$570.2</u>
Operating income					
Oil and gas	\$108.6	\$166.1	\$ 82.9	\$229.8	\$223.8
Propane marketing	49.3	35.1	28.2	15.3	8.7
Mineral resources	36.3	30.5	36.4	27.2	28.5
Investment and other revenues	10.1	10.8	18.7	44.8	10.8
	<u>\$204.3</u>	<u>\$242.5</u>	<u>\$166.2</u>	<u>\$317.1</u>	<u>\$271.8</u>

Note:

(1) Net of Crown and other royalties.

For additional information as to industry and geographic segments, reference is made to Note 14 to the Consolidated Financial Statements which is included in Part II Item 8 of this report.

For a description of the major events affecting the Company's operations, see Management's Financial Analysis and Discussion, Part II, Item 7 of this report.

CAPITAL EXPENDITURES

The following table sets forth, by operating division, capital expenditures, exclusive of significant acquisitions, for the indicated periods:

	Year ended December 31				
	1988	1987	1986	1985	1984
	(millions of dollars)				
Oil and Gas					
Exploration (including land purchases)					
Western Canada	\$ 47.6	\$ 38.3	\$ 53.0	\$ 86.1	\$ 71.7
Canadian frontier	13.6	18.7	31.0	73.0	84.3
United States	43.1	21.4	35.5	41.4	28.9
South Pacific	15.9	2.5	11.2	4.0	8.6
	<u>120.2</u>	<u>80.9</u>	<u>130.7</u>	<u>204.5</u>	<u>193.5</u>
Development					
Canada	32.5	25.7	38.4	51.5	35.6
United States	12.0	10.2	8.0	15.0	4.7
South Pacific	14.6	7.9	3.2	3.3	
	<u>59.1</u>	<u>43.8</u>	<u>49.6</u>	<u>69.8</u>	<u>40.3</u>
Other	2.6	1.1	4.6	14.5	6.5
Less: incentives - Canada	4.0	7.0	29.7	86.1	87.4
Total Oil and Gas	<u>177.9</u>	<u>118.8</u>	<u>155.2</u>	<u>202.7</u>	<u>152.9</u>
Propane Marketing	<u>20.8</u>	<u>25.6</u>	<u>5.8</u>	<u>3.5</u>	<u>2.5</u>
Mineral Resources	—	(0.5)	(1.1)	0.4	—
TOTAL EXPENDITURES	<u>\$198.7</u>	<u>\$143.9</u>	<u>\$159.9</u>	<u>\$206.6</u>	<u>\$155.4</u>

The above table excludes acquisitions as shown below:

	Year ended December 31				
	1988	1987	1986	1985	1984
	(millions of dollars)				
Oil and Gas	\$44.0		\$180.6	\$ 63.5	
Propane Marketing	\$11.4		\$122.6	\$ 15.5	

Capital expenditures of \$215.4 million have been authorized for 1989 and will be financed from internally-generated funds. The increase in 1989 reflects the maintenance of oil and gas investment programs in Western Canada, a reduction in Canadian frontier activity and increases in expenditures in the United States and South Pacific.

On February 14, 1989, the Company agreed in principle, subject to certain conditions and closing adjustments, to purchase for a consideration of \$528 million, substantially all of the oil and gas assets of Westmin Resources Limited ("Westmin"), including working capital of approximately \$56 million. Completion of the purchase and sale is subject to receipt of favorable tax rulings on certain aspects of the transaction and approval by Westmin voting shareholders. (See Note 3 to the Consolidated Financial Statements which is included in Part II, Item 8 of this report.)

OIL AND GAS DIVISION

Set forth below are the sources of revenues and operating income derived from Norcen's oil and gas operations for the indicated periods:

	Year ended December 31				
	1988	1987	1986	1985	1984
	(thousands of dollars)				
Oil and gas production revenues					
Crude oil	\$171,945	\$213,565	\$144,099	\$254,670	\$249,228
Oil sands royalty	21,098	21,540	22,043	29,587	30,049
Natural gas liquids ^(1,2)	26,916	32,070	32,620	39,533	34,358
Natural gas ⁽²⁾	94,357	80,589	82,052	97,019	92,331
Sulphur	1,961	2,004	2,524	3,442	2,688
	<u>316,277</u>	<u>349,768</u>	<u>283,338</u>	<u>424,251</u>	<u>408,654</u>
Oil and gas production expenses	105,789	100,480	96,655	93,878	81,370
Production revenue taxes	142	442	12,459	47,910	54,051
Depreciation and depletion	<u>118,693</u>	<u>105,778</u>	<u>111,296</u>	<u>72,933</u>	<u>70,907</u>
	<u>91,653</u>	<u>143,068</u>	<u>62,928</u>	<u>209,530</u>	<u>202,326</u>
Gathering and transmission, and other revenues	54,732	53,026	52,287	54,042	51,969
Product purchases, operating and other costs ⁽²⁾	36,463	28,308	30,647	32,320	29,666
Depreciation and depletion	<u>1,349</u>	<u>1,669</u>	<u>1,682</u>	<u>1,476</u>	<u>808</u>
	<u>16,920</u>	<u>23,049</u>	<u>19,958</u>	<u>20,246</u>	<u>21,495</u>
Operating income	<u>\$108,573</u>	<u>\$166,117</u>	<u>\$ 82,886</u>	<u>\$229,776</u>	<u>\$223,821</u>

Notes:

- (1) Natural gas liquids include ethane, propane, butane and pentanes plus.
- (2) Includes inter and intra-segment sales and purchases.

Operations Review

Introduction

Norcen's current oil and gas producing operations are focused in three main areas: the Western Canadian Sedimentary Basin, the U.S. Gulf Coast, and the Timor Sea off the northwest coast of Australia. The Company also has an interest in a major oil discovery at Amauligak in the Beaufort Sea, and interests in other areas of Canada including the Arctic and offshore East Coast. Norcen has increased its activity in the South Pacific with exploration underway in Australia's West Dampier Basin, off the west coast of New Zealand and off the south coast of Papua New Guinea.

The following table sets forth key oil and gas statistics for the periods shown⁽¹⁾:

	Year ended December 31				
	1988	1987	1986	1985	1984
Land Holdings (thousands of gross acres)					
Developed	2,729	2,597	2,386	2,400	2,589
Undeveloped	14,055	11,735	20,682	25,547	18,890
Wells Drilled					
Gross	253	284	384	549	363
Net	88.4	69.3	95.9	177.0	125.5
Production (daily average gross)					
Crude oil and liquids (thousands of barrels)	44.9	42.1	38.8	33.5	34.7
Natural gas (millions of cubic feet)	182.5	152.8	136.2	137.4	130.7
Established reserves (gross) ⁽²⁾					
Crude oil and liquids (millions of barrels)	134.0	125.7	127.8	117.3	115.8
Natural gas (billions of cubic feet)	1,165	1,144	1,148	1,113	1,086

Notes:

- (1) For detailed information, see the relevant section of "Statistical Review".
- (2) "Established reserves", as used herein, are estimates prepared by the Company and include proved reserves, plus probable reserves reduced by a risk factor.

Norcen's oil and gas production climbed to record levels in 1988. Crude oil and natural gas liquids ("NGL") production was up 6.6% to average 44,872 barrels per day ("b/d") and natural gas volumes were 19.4% higher, averaging 182.5 million cubic feet per day ("mmcf/d").

The gain in crude oil and NGL production was attributable to increased volumes from the Company's operations in all regions while the improvement in natural gas production was due primarily to increased market demand for Canadian gas and the development of new production from Norcen's properties in the United States.

After starting 1988 at U.S.\$17.69 per barrel, the price for West Texas Intermediate ("WTI") crude oil at Cushing, Oklahoma, commonly used as the reference point for North American crude oil pricing, reached a low of U.S.\$12.60 per barrel by early October. In December, however, following an agreement on new production quotas for 1989 by Organization of Petroleum Exporting Countries ("OPEC") member nations, the price recovered to close the year at U.S.\$17.24 per barrel. WTI prices continued to climb in January, reaching a high of U.S.\$19.28. This was due to a number of short-term factors including the OPEC agreement, a drop in North Sea production levels and a slight decline in current world inventory. Quoted prices for WTI averaged U.S.\$15.53 per barrel in December 1988, U.S.\$17.77 per barrel in December 1987, and U.S.\$15.45 per barrel in December 1986.

In the current volatile price environment, Norcen will continue to place the greatest emphasis on finding and developing low-cost oil and gas reserves which can be brought on production in the medium term. For long-term growth, Norcen will continue to seek out international exploration opportunities that offer the potential for larger discoveries than can be expected from the Company's traditional areas of activity in North America.

Canada

Exploration and Development

In Western Canada, Norcen participated in 178 working interest wells in 1988, of which 115 were completed as oil wells and 22 were completed as gas wells. The Company's exploration program was highly selective with the focus on high working interest prospects where Norcen's knowledge and expertise gave the Company an advantage with respect to geology, geophysics and land acquisition. The most important of these prospects included a Nisku oil play, centered in the Enchant area of southern Alberta, which added 425 b/d to production and Pembina, where 395 b/d were added.

The table below summarizes the more significant results of Norcen's 1988 exploration and development programs in Western Canada.

	<u>Norcen Share</u>	<u>Productive Potential(1)</u>	<u>Comments and Future Activity</u>
Oil and Natural Gas Liquids			
Enchant/Hays	to 80.0%	425 b/d	Additional drilling in 1989.
Pembina	to 100.0%	395 b/d	Additional drilling in 1989.
Hayter	37.5%	300 b/d	Additional drilling in 1989.
Colgate	75.2%	245 b/d	Submersible pumping equipment.
Cherhill	57.4%	240 b/d	Acquisitions; unitization and gas conservation planned for 1989.
West Pembina	50.0%	240 b/d	Deepen and recomplete.
Taber North	100.0%	225 b/d	Additional drilling in 1989.
Provost	37.5%	150 b/d	
Others	to 100.0%	945 b/d	
Total		<u>3,165 b/d</u>	
Natural Gas			
Jedney	100.0%	10.0 mmcf/d	Sales began in late 1988.
Others	to 100.0%	4.7 mmcf/d	
Total		<u>14.7 mmcf/d</u>	

Note:

- (1) Norcen's share of estimated incremental productive potential, before royalties, arising from 1988 activity. Productive potential reflects capacity to produce, adjusted in some cases for production regulations and actual or estimated contract sales. Actual production from these properties may vary, depending on market conditions, pipeline constraints and other factors.

While continued exploitation of such oil prospects as the Nisku oil play will be a key feature of Norcen's 1989 exploration program for Western Canada, greater emphasis will be directed toward the search for natural gas. The deep Devonian gas play in west-central Alberta, where Norcen's exploration effort has already begun, will be one of the main targets for 1989.

Canadian Frontier

Activity in the Canadian frontier in 1988 included participation in four delineation wells on the Amauligak structure, in the Beaufort Sea where the Company holds an approximate 15% working interest in this major oil discovery. The drilling program evaluated reservoir continuity, determined the productivity of reservoir sands and further delineated the structure. In drill stem tests on the 2F-24B well, three of the intervals flowed oil at the limit of the test equipment, up to approximately 6,000 b/d. The 2F-24B was the fourth well to be drilled from the F-24 berm and the fourth successful oil delineation well to be drilled following completion of the J-44 discovery well in September 1984.

Although management believes that the Amauligak discovery has sufficient reserves to be the lead development project in the Beaufort Sea, additional oil reserves may have to be established in the area to support a pipeline transportation system. Norcen plans to defer major investments at Amauligak and will confine its participation in 1989 to conceptual engineering studies.

In the East Coast offshore region, Norcen holds an extensive portfolio of land interests. The Company did not participate directly in any activity in this high cost area in 1988 due to low oil prices. The E-09 well, drilled by others on Norcen interest lands on the Whiterose structure, offshore Newfoundland, tested oil at a rate of 5,230 b/d. Norcen retains a 12.5% working interest in this well.

Production and Marketing - Liquid Hydrocarbons

In 1988, Norcen's production of crude oil and NGL in Canada averaged 39,175 b/d, up 3.6% from the previous year (see "Statistical Review - Production").

Production gains resulted primarily from the development of new pool discoveries and waterflood schemes initiated in 1987. Increased capacity on crude oil transmission facilities in Canada and development of alternate markets not subject to pipeline apportionment also contributed to the improvement. In the heavy oil sector, Norcen negotiated a long-term contract for the sale of more than half of its production to a new upgrader in Regina, Saskatchewan, which commenced operation in November 1988. This market provides the Company with sales which are less subject to seasonal swings in volumes and prices.

Crude oil in Canada is generally sold under contracts subject to cancellation on 30 days notice by either purchaser or seller. Prices are based on postings by major purchasers and are subject to change without notice. Additional spot sales are made under contracts of specified term, usually 30 days, at negotiated prices. In both cases, prices are generally related to prices for WTI, which results in Canadian crude oil prices being affected by the Canadian/U.S. dollar exchange rate. In 1988, Canadian oil prices were lower due to a decline in WTI prices coupled with the higher value of the Canadian dollar relative to that of the U.S. dollar. Prices for reference quality crude in Edmonton, Alberta averaged \$20.17 per barrel in January 1989, \$17.55 per barrel in December 1988, \$22.26 per barrel in December 1987, and \$21.06 per barrel in December 1986.

Norcen markets oil to a variety of purchasers in Canada and the United States. Norcen sells from 5 - 35% of its crude oil monthly on a spot basis. In 1988, approximately 75% of its sales were under term contracts and the balance under spot sales agreements.

Norcen produces natural gas liquids at Company-operated plants at Minnehik-Buck Lake, Fort Saskatchewan and St. Albert, and holds interests in production in the West Pembina and Harmattan areas and in the Empress Gas Liquids Joint Venture straddle plant. Sales of gas liquids averaged 6,731 b/d in 1988 compared with 6,447 b/d in 1987.

Norcen owns a 25% undivided interest in Bituminous Sands Lease No. 86 ("Lease 86") which covers 4,522 acres located near Fort McMurray, Alberta. Suncor Inc. ("Suncor"), which owns the other 75% undivided interest, operates an extraction plant which produces synthetic crude oil from bituminous sands, primarily from Lease 86.

The initial term of Lease 86 expired and was renewed for a 21-year term in 1987. Under the terms of an agreement with Suncor, Norcen is entitled to receive a basic royalty of 2.5 cents per barrel of bitumen extracted from the leased lands plus an additional royalty of 6.25% of the amount by which the price of synthetic crude oil exceeds \$2.75 per barrel. Terms of the agreement provide for adjustment of the royalty, subject to certain conditions. Certain aspects of Norcen's agreements with Suncor are the subject of current or potential legal proceedings and negotiations (see "Legal Proceedings").

Gross production of synthetic crude oil at the Suncor oil sands extraction plant averaged 47,000 b/d, compared with 43,000 b/d in 1987. On October 11, 1987, a fire seriously damaged the extraction unit at the plant and caused a complete shut-down of production. Operations resumed in late January 1988, and full production was restored during April 1988.

Production and Marketing - Natural Gas

In 1988, Norcen's production of natural gas in Canada climbed to 155.0 mmcf/d, up 13.6% from 136.4 mmcf/d in 1987.

Natural gas produced in Canada is sold primarily under long-term contracts domestically and to export markets. Some volumes of natural gas are sold under short-term sales arrangements.

Approximately 80% of Norcen's Canadian natural gas production is purchased under long-term contracts by three major marketing companies: Alberta and Southern Gas Company Limited ("A&S"), Western Gas Marketing Limited, a wholly-owned subsidiary of TransCanada PipeLines Limited ("WGML") and Pan Alberta Gas Ltd. ("Pan Alberta"). Prices under these long-term contracts are determined on a "netback" basis and ranged from \$1.30 per thousand cubic feet ("mcf") to \$2.30/mcf during 1988.

Under contracts with A&S, which purchased 42% of Norcen's Canadian natural gas production in 1988, prices for basic contract volumes are set at the Canada/U.S. border and netted back to the producer. The A&S average price of \$2.30/mcf, relates to a pricing basis which has been in force since October 1, 1986. This pricing basis will be redetermined April 1, 1989. A&S has the right to make additional sales to spot or industrial markets in California, with prices paid to producers based on actual sales prices less costs.

Under agreements with Pan Alberta, which purchased 20% of Norcen's production in 1988, sales are on a price netback basis with no minimums. In 1988, monthly Pan Alberta prices ranged from \$1.30/mcf to \$1.85/mcf, averaging \$1.60/mcf for the year.

Under agreements with WGML, which purchased 18% of the Company's Canadian natural gas production in 1988, prices are based on the weighted average price received by WGML for its gas sales, less transportation and marketing charges. WGML has sales contracts with major natural gas utilities in Eastern Canada and purchasers in the United States. Prices for Canadian sales under these contracts are subject to regulatory approval (see "Legislation and Government Policies"). The WGML average netback price of \$1.55/mcf results from a netback pricing basis established November 1, 1987. A new netback price has been redetermined effective January 1, 1989. This agreement has set a target of a minimum sales price of \$1.95/mcf at the Alberta border, which equates to a netback of approximately \$1.50 at the wellhead.

The remainder of Norcen's Canadian natural gas sales are generally made within Alberta on either a term contract or spot basis (see also "Gathering and Transmission - Industrial Gas System"). Prices under most of these contracts are based on a percentage of prices received under sales contracts with WGML.

In the past year, the Company executed formal agreements for direct sales of natural gas to the Consumers Power Company ("CPC") and the Midland Cogeneration Venture Limited Partnership ("MCV"), both in the state of Michigan. Pending regulatory approval and transportation arrangements for delivery of Canadian gas, initial deliveries to CPC commenced under an interim agreement in July 1988, at rates averaging 8 mmcf/d on an interruptible basis, from Norcen's U.S. producing properties. Delivery of Canadian gas is expected to begin by mid-1989. Sales to MCV will commence in 1990, with combined volumes reaching a maximum 24 mmcf/d by November 1, 1994. The term of both arrangements extends to November 1, 2001.

In recent years, natural gas prices in North America have been depressed due to a surplus of productive capacity and to the overall decline in prices for competing energy commodities. In 1988, this situation persisted in Canada despite an increase in both domestic and export demand, because of strong competition among Canadian

producers for new markets. However, in the U.S., natural gas prices firmed during 1988 in response to an apparent decline in the surplus of supply in that country, and limited access to Canadian sources due to pipeline capacity constraints. Reacting to these indications of increasing U.S. demand for Canadian gas, pipeline companies in Canada and the U.S. are actively pursuing expansion programs. A number of proposals could lead to easier access and increases in sales of Canadian gas to U.S. markets over the medium term. The lead has been taken by TransCanada PipeLines Limited, Canada's largest natural gas transmission company, which has already received approval from the National Energy Board for a facilities expansion program for 1989/90.

Production and Marketing - Gathering and Transmission

Industrial Gas System

Norcen owns and operates a natural gas system in Alberta which consists of two natural gas processing plants and approximately 320 miles of gathering and distribution pipeline. The system serves several major industrial users of natural gas in the Edmonton area and transports gas to major purchasers including A&S, WGML and Pan Alberta. In 1988, Norcen produced 19.5 mmcf/d for sale through the system, representing 30% of total sales of 66.0 mmcf/d, with the balance purchased from third parties.

Crude Oil Gathering and Transmission

Norcen owns and operates approximately 612 miles of oil transmission pipelines and gathering systems in the four western provinces. Crude oil is shipped by the systems in accordance with published tariffs. In 1988, system throughput averaged 83,200 b/d compared with 87,500 b/d in 1987.

Reserves and Land Holdings

In 1988, additions to reserves more than replaced production. Norcen's established reserves of crude oil and natural gas liquids in Canada were 115.9 million barrels ("mmbbls") at the end of 1988, compared with 112.8 mmbbls a year earlier. Established reserves of natural gas were 1,044 billion cubic feet ("bcf"), compared with 1,035 bcf at the end of 1987 (see "Statistical Review - Reserves").

The Company held interests in approximately 8.5 million acres of land in Canada at the end of 1988 (see "Statistical Review - Land Holdings").

Legislation and Government Policies

The oil and gas industry in Canada operates under federal, provincial and municipal regulations which govern land tenure, royalties, production rates, pricing, environmental protection, exports, taxes and other matters. Agreements have been made between the Government of Canada and the governments of the provinces of Alberta, British Columbia and Saskatchewan respecting deregulation of oil and gas markets and taxation of resource revenue.

Outlined below are some of the more significant aspects of agreements, legislation and regulations governing the oil and gas industry. Current legislation, regulations and agreements are matters of public record. The Company is unable to predict what additional legislation or amendments may be enacted.

Free Trade Agreement

It is anticipated that the Free Trade Agreement ("FTA") between Canada and the United States, which came into force on January 1, 1989, will have less impact on the Canadian oil and gas industry than other sectors. Currently, energy trade between Canada and the U.S. is characterized by the free flow of energy commodities at market-based prices. The FTA ensures that this free flow continues unchanged. The agreement specifically secures access to U.S. markets for Canadian producers. It also covers monitoring, licensing and pricing of exports and correction of discriminatory actions which may be taken by federal regulatory agencies in Canada and/or the United States.

Canada has agreed, in the FTA, to provide fair treatment to the United States in access to energy commodities, but continues to maintain the right to control exports to the U.S. proportional to the total Canadian supply, provided that such restrictions are not designed as an export control. Both Canada and the U.S. have agreed, in the FTA, that existing and future incentive programs for oil and natural gas exploration and development will be allowed.

Crude Oil Regulation

The price of all crude oil in Canada was deregulated effective June 1, 1985 (see "Production and Marketing - Liquid Hydrocarbons").

Natural Gas Regulation

Effective November 1, 1986, prices for interprovincial sales of natural gas were deregulated. Prior to that time, they were set in accordance with federal-provincial agreements. Prices paid by utilities to WGML are affected by regulation in the province of final consumption. Sales of gas within the province of Alberta were not and are not now subject to regulation (see "Production and Marketing - Natural Gas").

Prices for Canadian natural gas exported to the United States have been subject to negotiation between buyer and seller since November 1, 1984. Approval of export volumes and monitoring of prices is under the authority of the National Energy Board. In prior years, long-term exports were subject to a determination by formula that a specified surplus of natural gas existed in Canada. A change in policy was announced in 1987, whereby exports can be approved provided that the Board is satisfied that Canadian demand will be met from current and expected Canadian supplies.

Natural gas sold outside of Alberta can only be removed from the province under a removal permit, issued by the Alberta government. The government, through the Energy Resources Conservation Board, will issue a removal permit only after assessing the reserves from the proposed pools supporting the application, and reviewing the pricing provisions of the sales contract.

Taxation

Bill C-139, which received Royal Assent on September 13, 1988, reduced the federal corporate income tax rate applicable to oil and gas income from 35% to 28% effective July 1, 1988. Capital cost allowance rates have been reduced subsequent to January 1, 1988, and earned depletion, applicable to certain oil sands and heavy oil activities, will be phased out by the end of 1989. In Alberta, provincial corporate income tax rates were increased to 15% from 11% effective April 1, 1987. Under the terms of the federal government's budget of February 10, 1988, Norcen's entitlement to the resource allowance on royalties from Suncor was terminated effective July 1, 1988.

Federal Incentives

In 1987, the federal government introduced the Canadian Exploration and Development Incentive Program ("CEDIP"). The program provided for a grant of one-third of eligible exploration and development expenses, with a maximum of \$10 million in eligible expenditures per company on an annual basis. Effective October 1, 1988, the level of the grant was reduced to a rate of one-quarter of eligible expenses. Effective July 1, 1989, the rate is scheduled to be reduced to one-sixth of eligible expenses. The program is scheduled to expire at the end of 1989.

Provincial Royalties and Incentives

Under a program initiated by the Province of Alberta in 1986 and subsequently enhanced late in 1988, qualifying wells located outside boundaries of existing fields drilled in the 12 month period commencing November 1, 1986, in the 18 month period commencing November 1, 1987, and in the six month period commencing May 1, 1989, are eligible for royalty holidays of five years, three years and one year, respectively.

Effective January 1, 1988, the Province of Alberta's gross royalty share of natural gas production is determined with reference to an Average Market Price ("AMP") determined on the basis of the average sales price for gas in the province. Royalties are paid on actual sales prices, subject to a minimum of 80% of AMP. The effect is to increase royalties paid on discount sales below 80% of AMP. Further changes to the royalty regime have recently been implemented, including the option to calculate natural gas royalties on a corporate average price basis.

The Province of Alberta has also indicated its intention to impose royalties on ethane production, and to alter and increase royalties on production of pentanes and sulphur. The Alberta Royalty Tax Credit ("ARTC"), which, in 1987, rebated 95% of royalties paid, to a maximum of \$3 million per company per year, was reduced to 75% of royalties effective January 1, 1988, and will remain at that level until December 31, 1989. The Government has indicated its intention to structure a long-term, price-sensitive ARTC program for implementation January 1, 1990.

Environmental Regulation

Federal and provincial governments have enacted laws concerning the discharge of materials into the environment and otherwise relating to environmental protection. Norcen believes that its operations comply in all material respects with all applicable environmental regulations.

United States

Exploration and Development

In 1988, Norcen continued its successful onshore exploration and development program in the U.S. Gulf Coast area. A gas discovery at Bayou Vermilion, Louisiana, began producing in December. Production from this well in January 1989, averaged 13 mmcf/d of gas and 75 b/d of NGL. At January month-end, completion operations were underway on a second well at Bayou Vermilion. Norcen holds a 56.25% interest (45.7% after payout), in each of these wells (see "Production and Marketing").

Offshore, in the Gulf of Mexico, the Company's drilling program did not encounter success but did establish a land position. At year-end, Norcen held interests in eight blocks and plans to be active in upcoming lease sales. With the added incentive of increasing gas prices in the U.S., Norcen may participate in up to eight wells in 1989, in this highly prospective, gas-prone area. In offshore California, drilling of an appraisal well at Gato Canyon began in early January 1989.

The following table summarizes the results of significant U.S. exploration and development efforts in 1988:

	<u>Norcen Share</u>	<u>Productive Potential(1)</u>	<u>Comments and Future Activity</u>
Louisiana			
Paige Lake	34.2%	3 mmcf/d 90 b/d	One additional well in 1989.
Bayou Vermilion	45.7%	15 mmcf/d 90 b/d	One additional well in 1989.
Mississippi			
Laurel	to 50%	430 b/d	Four additional wells in 1989.
Total		18 mmcf/d 610 b/d	

Note:

- (1) Norcen's share of estimated incremental productive potential, before royalties, arising from 1988 activity. Productive potential reflects capacity to produce, adjusted in some cases, for production regulations and actual or estimated contract sales. Actual production from these properties may vary, depending on market conditions, pipeline constraints and other factors.

Production and Marketing

Norcen's production of crude oil and NGL in the United States was 1,806 b/d in 1988, compared with 1,657 b/d in 1987. Crude oil is marketed in the United States on a basis similar to that in Canada. Most of Norcen's production is sold under term contracts subject to cancellation on 30 days notice. All U.S. production is sold within that country.

U.S. natural gas production was 27.5 mmcf/d, compared to 16.4 mmcf/d in 1987 (see "Statistical Review - Production"). In the U.S., Norcen's gas is sold primarily on a contract basis with occasional spot sales. Late in 1988, Norcen entered into a three-year contract for the sale of natural gas from reserves at Bayou Vermilion, with take-or-pay provisions based on 75% of deliverability averaged annually. Total sustained gross natural gas production from the discovery well and the follow-up well, is expected to average approximately 30 mmcf/d over the next 12 months.

Reserves and Land Holdings

Norcen's established reserves of crude oil and natural gas liquids in the United States were 5.7 mmbbls at the end of 1988, compared to 8.5 mmbbls a year earlier (see "Statistical Review - Reserves"). A downward revision of probable reserves, based on disappointing results of delineation drilling in the Laurel field in Mississippi, accounted for most of the reduction. The Company's established natural gas reserves in the United States were 121 bcf at year-end, compared to 109 bcf at the end of 1987. The increase in gas reserves was mainly attributable to the discovery at Bayou Vermilion.

The Company held interests in approximately 719,000 acres of land in the United States at the end of 1988 (see "Statistical Review - Land Holdings).

Legislation and Government Policies

The exploration for, and production and sale of oil and gas in the United States are subject to a variety of federal and state taxes and government regulations, all of which are a matter of public record.

Crude Oil Regulation

All federal controls on the price of oil produced in the United States were abolished in 1981.

Natural Gas Regulation

Natural gas prices have been regulated under the Natural Gas Policy Act (the "NGPA") since December 1978. Pursuant to the NGPA, the prices of certain categories of natural gas were deregulated on January 1, 1985, and July 1, 1987.

Certain regulatory actions were taken by the Federal Energy Regulatory Commission ("FERC") during 1988. Order No. 497 was issued to prevent preferential treatment by pipelines toward gas marketing affiliates created to arrange spot market gas sales and transportation. Order No. 490 became effective April 12, 1988, permitting abandonment of certain sales and purchases by both sellers and purchasers, where the underlying contract term has expired and where the contract has been terminated or modified with respect to sales obligations, or, to a limited extent, where such obligations have been unilaterally reduced, suspended or terminated.

Taxation

Oil and gas production in the United States is subject to ad valorem, severance and conservation taxes, among others. Revenues from the production of oil and gas are also subject to federal and state income taxes. The Tax Reform Act of 1986 (the "TRA") substantially retains current tax laws regarding intangible drilling costs and percentage depletion. Among other changes, the TRA eliminates the investment tax credit, equalizes the marginal rates applicable to ordinary income and long-term capital gains, and decreases depreciation rates.

Environmental Regulation

Federal, state and local governments have enacted laws concerning the discharge of materials into the environment and otherwise relating to environmental protection. Norcen believes that its operations comply in all material respects with all applicable environmental regulations.

South Pacific

Australia

Exploration and Development

Offshore northwestern Australia, in the Timor Sea, Norcen holds a 12.5% interest in the Jabiru, Challis and Cassini projects and a 5% interest in the Skua discovery.

At Jabiru, the source of all of Norcen's Australian crude oil production to date, the floating production vessel was shut-down for most of April and May and removed for modifications to increase its production capacity from 30,000 to 60,000 b/d. Following its return to the field in late May, two new wells, Jabiru 6 and Jabiru 7, were tied-in to the facility in addition to the two previous producing wells. Gross production from Jabiru for the second half of 1988 averaged 42,700 b/d.

At the Challis field, located about 12 miles south of Jabiru, development continued on schedule for anticipated production start-up in the fourth quarter of 1989. Two additional development wells, Challis 6 and Challis 7, were successfully completed during 1988, bringing to six the number of wells capable of production. The success of the drilling program at Challis has raised initial gross production expectations to a minimum of 30,000 b/d.

At Cassini, approximately three miles southwest of Challis, the first exploratory well drilled on the Cassini structure tested oil at 7,600 b/d. A follow-up well, Cassini 2, which was drilled over the 1988 year-end, was unsuccessful. Plans call for linking the Cassini field to the Challis production facility prior to Challis start-up.

At the Skua oil discovery, approximately 45 miles southwest of Jabiru, the initial follow-up well was successful. A second follow-up well was plugged and abandoned after penetrating a non-commercial hydrocarbon column. Geological and geophysical data is under review to re-evaluate the characteristics of the structure before further drilling.

Late in the year, Norcen participated in a successful bid for the 598,000 acre exploration permit AC/P10, in the Timor Sea. Norcen will hold a 30% interest in the permit and will be the operator. Work commitments attached to permit AC/P10 will require Norcen to spend approximately \$10 million over three years on seismic programs and a four-well drilling program.

Production and Marketing

Norcen's total crude oil production in Australia is from the Jabiru field and averaged 3,891 b/d in 1988 compared to 2,594 b/d in 1987. Jabiru production is marketed on a cargo-by-cargo basis to various purchasers in Pacific Rim countries.

Reserves and Land Holdings

Norcen's established reserves of crude oil in Australia were 12.3 mmbbls at the end of 1988, compared to 4.4 mmbbls one year earlier (see "Statistical Review - Reserves"). The increase in reserves reflects delineation and extension of the Jabiru structure and recognition of commercial reserves at Challis and Cassini.

In total, Norcen holds interests in five exploration permits off Australia's northwest coast, totalling 4.2 million gross (0.6 million net) acres (see "Statistical Review - Land Holdings").

Legislation and Government Policies

In Australia, offshore exploration and production are subject to federal legislation, regulation and taxation, all of which are a matter of public record.

Taxation

Profits from offshore petroleum recovery projects are subject to the Petroleum Resource Rent Tax ("PRRT"). PRRT is profit-based and applies whenever revenues from a permit exceed cumulative related expenditures on the permit escalated at specified rates. PRRT is assessed at a rate of 40% and qualifies as a deduction from income for the purpose of calculating income tax. The Australian corporate income tax rate has been reduced to 39% from 49% for 1989 and subsequent taxation years.

New Zealand

In July 1988, Norcen purchased, for \$33.7 million, a 20% interest in a 308,000 acre permit in the Taranaki Basin, offshore the west coast of New Zealand's North Island, where earlier exploratory drilling had resulted in the successful completion of three oil and gas/condensate wells on the Kupe South structure, located in the southern portion of the permit. An additional delineation well, Kupe South 4, was spudded in mid-January 1989. Norcen holds interests in two other offshore exploration permits, covering 442,000 gross (88,000 net) acres, also in the Taranaki Basin.

Papua New Guinea

Offshore Papua New Guinea, Norcen participated in drilling of the Pandora 1X well which tested dry gas at the rate of 57 mmcf/d from a selected interval over a 907 foot column. Potential markets for the gas are being evaluated. Norcen holds a 15% interest in this well.

Statistical Review

Land Holdings

At December 31, 1988, Norcen held working interests in 16.8 million gross (4.2 million net) acres as follows:

	Developed		Undeveloped			
	Petroleum and natural gas leases		Petroleum and natural gas leases		Permits, licences and exploration agreements	
	Gross acres (thousands)	Net acres (thousands)	Gross acres (thousands)	Net acres (thousands)	Gross acres (thousands)	Net acres (thousands)
CANADA^(1,2,3)						
Alberta	1,991	781	1,416	631	261	176
British Columbia	209	34	212	81	35	9
Saskatchewan and Manitoba	123	76	222	106	42	37
Arctic					450	35
Beaufort Sea					1,406	164
Yukon					1,620	648
Northwest Territories					30	5
Offshore East Coast					499	51
	<u>2,323</u>	<u>891</u>	<u>1,850</u>	<u>818</u>	<u>4,343</u>	<u>1,125</u>
INTERNATIONAL						
United States ⁽⁴⁾	55	14	664	206		
Australia ⁽⁵⁾	351	44			3,848	516
New Zealand ⁽⁶⁾					750	150
Papua New Guinea ⁽⁷⁾					2,600	390
	<u>406</u>	<u>58</u>	<u>664</u>	<u>206</u>	<u>7,198</u>	<u>1,056</u>
TOTAL	<u>2,729</u>	<u>949</u>	<u>2,514</u>	<u>1,024</u>	<u>11,541</u>	<u>2,181</u>

Notes:

- (1) Petroleum and natural gas leases include freehold titles. In general, leases confer upon the lessee the right to explore for and remove all oil and/or natural gas from the property with the lessee paying all development and operating costs and being entitled to the production subject to rental and/or a reserved royalty.
- (2) In Canada, permits and licences are acquired from the provinces through competitive bidding. The holder is generally required to make cash payments or to undertake specified amounts of work in order to retain the right to the land.

Most of Norcen's rights to oil and gas in Canada are in lands acquired from the Governments of Canada, British Columbia, Alberta and Saskatchewan. The balance of rights held have been acquired from freehold mineral owners or governments of other provinces.

In the Province of Alberta, most of Norcen's rights are under petroleum and natural gas leases granted by the Crown in Right of Alberta, which leases have primary terms of five, ten, or twenty-one years. All Crown leases issued in Alberta will be continued beyond the primary term, for those lands producing or capable of producing petroleum substances, until 90 days after capability to produce ceases. Rights to zones below the deepest zone considered by the province to be capable of production in commercial quantities will revert to the province at the end of the primary term.

In the Province of British Columbia, Crown petroleum and natural gas rights are acquired in three forms: drilling licences and permits with terms varying from two to eight years, and leases with primary terms of five or ten years. Rights to all zones below the deepest zone considered by the province to be capable of production in commercial quantities will revert to the province at the end of the primary lease term. All Crown leases will be continued beyond the primary term for those lands capable of producing petroleum substances.

In the Province of Saskatchewan, Crown petroleum and natural gas rights are acquired in three forms: drilling reservations with a one year term, permits with a three year term and leases with a primary term of five years. All Crown leases will be continued beyond the primary term if there is a well on the lands producing petroleum substances.

Some of Norcen's rights in these provinces are subject to work commitments. Norcen believes that it will be in a financial position to meet the work commitments necessary to maintain these leases.

- (3) In the Canadian frontier, exploration agreements negotiated with the Crown confer upon the holder the right to explore, to develop in order to produce and to obtain a production license for the lands. The Canada Lands encompass the Yukon Territory, the Northwest Territories, Beaufort Sea, Arctic Islands and offshore the East and West Coasts. In December 1985, the Government of Canada introduced a bill titled The Canada Petroleum Resources Act ("CPRA") which was proclaimed in force in 1987. The CPRA substantially modified the regulatory regime for frontier operations. Exploration Licenses will be issued on a competitive basis for a fixed term not to exceed nine years. Rights under the Licenses are to be relinquished on expiry of the term. If a discovery of significant quantities of oil and gas occurs, interest holders may apply for a Significant Discovery License, allowing exploration of a surrounding area for an indefinite period. To produce from the Canada Lands, a Production License must be obtained. These Licenses will be subject to a requirement that 50% of the interest be Canadian-owned. Interest holders not meeting the requirement at the time of application will be required to submit a plan showing how the requirement will be met. If, at the time of issuance, the required level of Canadian participation is not met, provision will be made for sale of interests, at fair market value, to Canadian entities in order to meet the requirement. The Government of Canada will reserve the purchase right of last resort at a price not less than fair market value.
- (4) The majority of Norcen's oil and gas interests in the U.S. are acquired under leases of federal, state and private tracts. Leases of federal onshore and offshore tracts are subject to extensive federal regulation, while leases of state and private land are governed by law which varies from state to state. The leases are generally obtained for an initial fixed term which is automatically extended by the establishment of production for so long as production continues, subject to compliance with the terms of the lease.
- (5) In Australia, interests are held under exploration permits and production licenses. Exploration permits authorize the permit holder to carry on necessary operations to explore for petroleum in the permit area. Rights are subject to permit conditions and the provisions of the Petroleum (Submerged Lands) Act, 1967. The initial term of an exploration permit is six years and subsequent renewals are for five years. An exploration permit can generally be renewed in respect of half of its current area. If petroleum is discovered within the permit area, the permit holder must inform the government which may direct the permit holder to evaluate the discovery. The permit holder may nominate the area in which a discovery is situated, being within the permit area, for declaration as a "location". Petroleum recovery operations can only be conducted under a production license or as otherwise permitted by the government. Permit holders may apply for a production license in respect of some or all of a location. The application for a production license must be made within two years of the declaration of a location, otherwise the location reverts to the Crown. A production license is granted for an initial term of 21 years and may be renewed for a further 21-year term and thereafter for terms of a duration to be determined by the government. Minimum work and expenditure obligations are incorporated as conditions of both exploration permits and production licenses.
- (6) In New Zealand, interests are held under Petroleum Prospecting Licenses and Mining Licenses. Petroleum Prospecting Licenses are issued pursuant to the Petroleum Act 1937 by the Minister of Energy, for initial terms of up to five years with the option for renewal for a similar period, provided the holder has complied with the original terms of issue. Petroleum recovery is undertaken under a Mining License which may be granted to a holder of a valid prospecting license. Mining licenses are issued for an initial term, not exceeding four years, and a specified additional term, as may be fixed by the Minister of Energy. Once a development strategy on the discovery is approved by the Minister, a specified license term can commence for a period not exceeding 40 years. The government has an 11% carried interest in any exploration which is converted into an 11% working interest in any Mining License which may be issued. Moreover, the government reserves to itself a 12.5% royalty on all petroleum produced and sold. Minimum work and expenditure obligations are incorporated as conditions of both prospecting and mining licenses.
- (7) In Papua New Guinea, exploration is undertaken under Petroleum Prospecting Licenses which are issued pursuant to the Petroleum Act, for initial terms of up to six years with a renewal option for an additional five years or such time as specified by the government. In general, a license can only be extended to cover half of its original area. On discovery of petroleum within a licensed area, a permit holder is required to inform the government of the discovery, and may be required by the government to determine the viability of the discovery. Extraction of petroleum can only be effected under a Petroleum Development License. Application for a license can only be undertaken by the holder of a Petroleum Prospecting License and must be made within two years of the identification of a discovery location. A Petroleum Development License, issued for an initial term of 25 years, is renewable for an additional 20 year term. Minimum work and expenditure obligations are incorporated as conditions of both licenses.

The figures in the above table do not include overriding royalty interests held in 1,056,544 gross acres and net carried interests in approximately 140,988 gross (6,407 net) acres.

As used in the foregoing discussion:

- "Gross acres" refers to the total acreage in which Norcen has an interest or may earn an interest under farm-in agreements.
- "Net acres" refers to the total of Norcen's interests in each parcel in which it has a working interest or is committed to earn a working interest. Norcen's interests are subject to royalties and other non-working interests.
- "Working interest" refers to acreage for which Norcen is responsible for a portion of the costs and is entitled to a portion of the production before royalty expense.

- “Net carried interest” refers to acreage in which Norcen has an interest in revenues after capital and operating costs have been recovered.
- “Royalty interest” refers to acreage leased to others for which Norcen has no responsibility for costs and is entitled to an amount based on the value of production.
- “Developed acreage” refers to acreage assignable to productive wells.
- “Undeveloped acreage” refers to lease acres on which wells have not been drilled and completed to a point that would permit the production of commercial quantities of oil and gas regardless of whether or not such acreage contains proved reserves.

Drilling

The following table sets forth exploratory and development wells which were completed, capped or abandoned, and in which Norcen participated on a working interest basis, during the indicated periods:

	Year ended December 31									
	1988		1987		1986		1985		1984	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Exploratory ^(1,2)										
Oil	23	10.9	16	8.3	28	8.2	80	29.2	54	20.1
Gas	15	6.5	5	2.4	14	4.1	27	13.4	14	4.7
Abandoned	<u>57</u>	<u>30.3</u>	<u>38</u>	<u>25.3</u>	<u>70</u>	<u>36.6</u>	<u>143</u>	<u>55.7</u>	<u>108</u>	<u>53.3</u>
	<u>95</u>	<u>47.7</u>	<u>59</u>	<u>36.0</u>	<u>112</u>	<u>48.9</u>	<u>250</u>	<u>98.3</u>	<u>176</u>	<u>78.1</u>
Success ratio (%)	40.0		35.6		37.5		42.8		38.6	
Development ⁽²⁾										
Oil	117	30.2	129	16.9	179	30.3	179	51.0	92	29.2
Gas	14	1.8	21	7.9	18	5.3	42	10.1	14	5.8
Abandoned	<u>27</u>	<u>8.7</u>	<u>15</u>	<u>5.6</u>	<u>20</u>	<u>7.0</u>	<u>33</u>	<u>11.4</u>	<u>20</u>	<u>6.9</u>
	<u>158</u>	<u>40.7</u>	<u>165</u>	<u>30.4</u>	<u>217</u>	<u>42.6</u>	<u>254</u>	<u>72.5</u>	<u>126</u>	<u>41.9</u>
Success ratio (%)	82.9		90.9		90.8		87.0		84.1	
Total ⁽³⁾	<u>253</u>	<u>88.4</u>	<u>224</u>	<u>66.4</u>	<u>329</u>	<u>91.5</u>	<u>504</u>	<u>170.8</u>	<u>302</u>	<u>120.0</u>
Success ratio (%)	66.8		76.3		72.6		65.1		57.6	

Notes:

- (1) Exploratory wells for prior years have been restated to include only wells in which Norcen participated on a working interest basis. The results of wells farmed out to others, where Norcen generally retains an overriding royalty interest, with or without an option to convert to a working interest on payout of the costs of drilling the well, were as follows:

	1988	1987	1986	1985	1984
Oil	40	24	21	18	16
Gas	8	13	8	7	13
Abandoned	<u>41</u>	<u>23</u>	<u>26</u>	<u>20</u>	<u>32</u>
Total	<u>89</u>	<u>60</u>	<u>55</u>	<u>45</u>	<u>61</u>

Of the 1988 farmout wells, 80 were in Canada and 9 were in the U.S.

- (2) In general, an “exploratory well” is a well drilled either in search of a new undiscovered pool of oil and/or gas or with the expectation of significantly extending the limit of a pool which is partly developed. All other wells are “development wells”.
- (3) The 253 working interest wells drilled in 1988 consisted of 181 wells in Canada, 57 wells in the U.S., 14 wells in Australia and 1 well in Papua New Guinea.
- (4) “Gross wells” refers to all wells in which Norcen participated. “Net wells” refers to the aggregate of the percentage interests of Norcen in the gross wells in which Norcen has a working interest and excludes wells in which Norcen does not have a working interest.
- (5) A “productive well” is a well capable of producing oil or gas in commercial quantities or capable of producing oil or gas in quantities deemed by the operator to justify the costs required to produce the well. In the above table, the designation of a well as an oil or gas well indicates the primary or sole production from that well. All wells which are not productive wells are considered to be abandoned.

Production

Producing Wells

As of December 31, 1988, Norcen had working interests in the following number of oil and gas wells producing or capable of producing:

	Canada		United States		Australia		Total	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Crude Oil	7,375	749	108	23	4	0.5	7,487	772.5
Natural Gas ⁽¹⁾	2,484	573	92	19			2,576	592.0

Note:

(1) Includes 348 gross (116 net) shut-in gas wells.

Crude Oil and Liquids

The following table sets forth crude oil, oil sands royalty and natural gas liquids production for the indicated periods:

	Year ended December 31				
	1988	1987	1986	1985	1984
Daily average gross liquids (b/d)					
Crude oil	34,700	32,936	29,183	26,045	27,214
Oil sands royalty	2,943	2,698	3,424	2,469	2,903
Natural gas liquids					
- lease ownership	5,085	4,519	4,159	3,152	3,670
- plant ownership	2,144	1,928	2,043	1,787	907
Total	<u>44,872</u>	<u>42,081</u>	<u>38,809</u>	<u>33,453</u>	<u>34,694</u>
Gross annual liquids (mbbls)					
Crude Oil					
British Columbia	458	558	580	517	582
Alberta	9,299	8,887	8,285	7,573	8,190
Saskatchewan and Manitoba	1,040	1,025	1,013	1,073	1,103
United States	479	605	523	344	85
Australia	1,424	947	251		
	<u>12,700</u>	<u>12,022</u>	<u>10,652</u>	<u>9,507</u>	<u>9,960</u>
Oil sands royalty - Alberta ⁽¹⁾	1,077	985	1,250	901	1,063
Natural gas liquids					
Alberta	2,464	2,353	2,264	1,803	1,675
United States	182				
Total	<u>16,423</u>	<u>15,360</u>	<u>14,166</u>	<u>12,211</u>	<u>12,698</u>
Net annual liquids (mbbls) ⁽²⁾					
Crude oil	10,445	9,704	8,390	7,333	7,357
Oil sands royalty - Alberta ⁽¹⁾	1,077	985	1,250	901	1,063
Natural gas liquids	2,107	1,909	1,876	1,494	1,290
Total	<u>13,629</u>	<u>12,598</u>	<u>11,516</u>	<u>9,728</u>	<u>9,710</u>

Notes:

(1) In equivalent barrels of crude oil.

(2) Net production figures are after royalties to governments and others.

Natural Gas

The following table sets forth natural gas production for the indicated periods:

	Year ended December 31				
	1988	1987	1986	1985	1984
Daily average gross (mcf/d)					
Natural gas	<u>182,505</u>	<u>152,824</u>	<u>136,225</u>	<u>137,392</u>	<u>130,740</u>
Gross annual natural gas (mmcf)					
British Columbia	3,176	3,102	2,264	2,883	2,809
Alberta	53,182	46,137	42,433	44,990	44,351
Saskatchewan	379	561	429	164	119
United States	<u>10,060</u>	<u>5,981</u>	<u>4,596</u>	<u>2,111</u>	<u>572</u>
Total	<u>66,797</u>	<u>55,781</u>	<u>49,722</u>	<u>50,148</u>	<u>47,851</u>
Net annual natural gas (mmcf) ⁽¹⁾	<u>51,329</u>	<u>42,895</u>	<u>36,402</u>	<u>35,354</u>	<u>33,379</u>

Note:

(1) Net production figures are after royalties to governments and others.

Pricing

The following table shows Norcen's average net sales price (after royalty) per unit of gross field production and average unit gross field production cost for the years indicated.

	Net sales price					Production cost				
	Year ended December 31					Year ended December 31				
	1988	1987	1986	1985	1984	1988	1987	1986	1985	1984
Crude oil										
per bbl	\$13.23	\$17.67	\$13.53	\$26.79	\$25.02	\$3.50	\$3.80	\$4.11	\$4.38	\$3.66
Oil sands royalty										
per bbl	16.31	21.87	17.64	32.83	28.28					
Natural gas liquids										
per bbl ⁽¹⁾	9.13	11.92	12.16	20.91	20.92					
Natural gas										
per mcf	1.41	1.44	1.65	1.93	1.94	0.36	0.43	0.38	0.41	0.32

Note:

(1) Production costs are included with those for natural gas.

Reserves

Norcen's principal crude oil reserves in Canada are located in the Pembina, Snipe Lake, West Pembina, Countess/Lathom, Provost, Hays/Enchant, Stettler, Wildmere, and Taber fields in Alberta. The Company's principal natural gas reserves are in the Minnehik-Buck Lake, Wildcat Hills, Harmattan/Harmattan East, Boyer, West Pembina, Harmattan Elkton and Crossfield fields in Alberta and the Jedney/North Jedney field in British Columbia. In the U.S., principal oil and gas reserves are in the Paige Lake, Bayou Vermilion, Grand Bois and Laurel fields. In Australia, proved oil reserves are recognized for the Jabiru, Challis and Cassini areas.

The gross and net reserves of crude oil, natural gas liquids, natural gas and sulphur, at December 31, 1988, as estimated by Company engineers, for Canada, the United States and Australia are set out in the table below, to which the following definitions apply.

- “Proved reserves” are those reserves estimated as recoverable under current technology and existing economic conditions, from that portion of a reservoir which can be reasonably evaluated as economically productive on the basis of analysis of drilling, geological, geophysical and engineering data, including the reserves to be obtained by enhanced recovery processes demonstrated to be economic and technically successful in the subject reservoir. With the exception of certain Australian reserves, virtually all the proved reserves of oil and gas liquids are developed. In the case of proved natural gas reserves, sufficient wells were indicated to exist to meet required withdrawal rates from reservoirs and are therefore considered to be developed even though additional drilling may be required in a small number of cases.
- “Probable additional reserves” are those reserves which analysis of drilling, geological, geophysical and engineering data does not demonstrate to be proved under current technology and existing economic conditions, but where such analysis suggests the likelihood of their existence and future recovery. Probable additional reserves to be obtained by the application of enhanced recovery processes will be the increased recovery over and above that estimated in the proved category which can be realistically estimated for the pool on the basis of enhanced recovery processes which can be reasonably expected to be instituted in the future. “Risk-adjusted probable additional reserves” are probable additional reserves adjusted downward by 50% to reflect uncertainty as to volume estimates and recovery factors.
- “Established reserves” are the sum of proved reserves and risk-adjusted probable additional reserves.
- “Gross reserves” refer to Norcen’s share of the gross reserves underlying the properties in which Norcen has either a working interest or a royalty interest before deduction of any royalty interests owned by others, whereas “net reserves” refers to the gross reserves after deduction of royalty interests owned by others. Cash royalties payable by or to Norcen are reflected on the basis of their appropriate barrel or mcf equivalents, using price and cost forecasts in effect at the time the report was prepared. In the case of royalties payable to Norcen, the amount of the gross and net reserves is the same.

	Proved		Risk-Adjusted Probable Additional		Total Established	
	Gross	Net	Gross	Net	Gross	Net
Crude oil (mbbls)						
Alberta	83,487	69,593	9,705	8,090	93,192	77,683
British Columbia	3,189	2,629	88	73	3,277	2,702
Saskatchewan/Manitoba	4,604	3,560	384	297	4,988	3,857
Total Canada	91,280	75,782	10,177	8,460	101,457	84,242
United States	3,358	2,606	813	650	4,171	3,256
Australia	12,331	12,331			12,331	12,331
Total	106,969	90,719	10,990	9,110	117,959	99,829
Natural gas liquids (mbbls) ⁽¹⁾						
Alberta	13,297	9,592			13,297	9,592
British Columbia	1,138	912			1,138	912
Total Canada	14,435	10,504			14,435	10,504
United States	1,449	1,054	109	82	1,558	1,136
Total	15,884	11,558	109	82	15,993	11,640
Natural gas (mmcf) ⁽²⁾						
Alberta	884,575	666,892	62,504	47,123	947,079	714,015
British Columbia	84,049	68,041	4,756	3,850	88,805	71,891
Saskatchewan	4,969	4,401	2,981	2,641	7,950	7,042
Total Canada	973,593	739,334	70,241	53,614	1,043,834	792,948
United States	110,964	88,350	10,084	7,874	121,048	96,224
Total	1,084,557	827,684	80,325	61,488	1,164,882	889,172

	Proved		Risk-Adjusted Probable Additional		Total Established	
	Gross	Net	Gross	Net	Gross	Net
Sulphur (000s long tons)						
Alberta	521	436			521	436
British Columbia	59	49			59	49
Total	<u>580</u>	<u>485</u>			<u>580</u>	<u>485</u>

Notes:

- (1) No natural gas liquids reserves are assigned to either the proved or probable additional natural gas reserves unless facilities to remove those products are available or planned.
- (2) More than 85% of Norcen's proved gas reserves are on stream or under contract.

As required by National Policy 2-B of the Canadian Provincial Securities Administrators, Norcen discloses material information as to the quantity and type of estimated net proved developed reserves, net proved undeveloped reserves and net probable additional reserves of crude oil, natural gas, and natural gas liquids as of the end of its last financial year.

Norcen's net proved reserves of crude oil, natural gas liquids and natural gas, as reported above have been determined by Company engineers in accordance with accepted Canadian practices. The method employed uses forecasts of selling prices of crude oil, natural gas, and natural gas liquids and costs of production. In 1988, net proved reserves calculated using the United States practice of constant prices and costs were marginally higher than those calculated using forecasted prices and costs (see "Supplemental Information - Oil and Gas Information").

PROPANE MARKETING DIVISION

The Company's wholly-owned subsidiary, Superior Propane Inc., distributes propane across Canada as a residential, commercial, industrial, agricultural and automotive fuel. Superior was created in 1986, when Norcen acquired the business and assets of Superior Propane, and integrated this business unit with Norcen's wholly-owned subsidiaries, Cigas Products Ltd. and Monarch Propane Limited. Superior is Canada's leading marketer of propane, with an estimated 43.5% share of the domestic propane market.

Through the sale of propane consuming appliances and other related support services, Superior encourages the continued use of propane by new and existing customers. Superior is an industry leader in the conversion of commercial vehicle fleets to propane and operates the largest automotive propane network in Canada, with more than 1,400 retail outlets.

Superior is Canada's only national propane marketer with established representation in all ten provinces. Serving more than 200,000 customers in all sectors of the economy, Superior actively seeks to create and maintain a geographically-balanced business mix to minimize the effects of seasonal and cyclical demand fluctuations.

Set forth below are propane marketing statistics for the periods indicated:

	Year ended December 31				
	<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1985</u>	<u>1984</u>
	(thousands of dollars)				
Propane marketing revenues	\$314,387	\$288,256	\$217,435	\$110,023	\$ 71,417
Product purchases and operating costs	249,097	238,578	179,367	91,593	61,145
Depreciation	<u>16,026</u>	<u>14,561</u>	<u>9,816</u>	<u>3,042</u>	<u>1,588</u>
Operating income	<u>\$ 49,264</u>	<u>\$ 35,117</u>	<u>\$ 28,252</u>	<u>\$ 15,388</u>	<u>\$ 8,684</u>
	(millions of litres)				
Propane sales	<u>1,255.5</u>	<u>1,108.4</u>	<u>804.6</u>	<u>410.6</u>	<u>249.4</u>

The marked increase in operating income in 1988 reflects a 13.3% increase in sales volume. This increase resulted from the implementation of key marketing and productivity initiatives, combined with a return to more normal weather patterns.

Three new company-owned branches (Charlottetown, Prince Edward Island; Drummondville, Quebec and Dryden, Ontario) were opened in 1988, bringing the total to 105 branches from coast to coast. Superior expanded its market presence in the last quarter of 1988, primarily in Quebec and in Western Canada, through the acquisition of various small, independent propane companies representing an annual volume of 62 million litres.

In accordance with Superior's commitment to identify new uses for propane and to educate consumers in the areas of auto propane applications and advanced technology, Superior initiated a research and development program in 1988. A series of projects were undertaken with a major North American manufacturer of carburetion equipment. As well, several joint projects are underway with the Propane Gas Association of Canada.

Propane is in abundant supply in Canada, where it is a secondary product in natural gas production (80%) and the refining of crude oil (20%). Total Canadian production is more than adequate to meet domestic demand for the foreseeable future. Superior purchases propane from a variety of suppliers at prevailing commercial terms.

Superior believes that propane demand will be stable over the next five years. Building on its strong financial performance and marketing programs, Superior will continue to optimize its position in the Canadian marketplace, and will examine selected business opportunities in the United States.

MINERAL RESOURCES DIVISION

Norcen's Mineral Resources Division consists of its 100% ownership interest in Labrador Mining and Exploration Company Limited ("Labrador Mining") and a 28% equity interest in Hanna. Labrador Mining holds iron ore and other resource assets, principally 11% of IOC and a royalty interest in IOC iron ore sales. Hanna, primarily a manufacturer of formulated polymers, also holds a 28% equity interest in IOC.

The following table shows the sources of operating income for the Mineral Resources Division for the indicated periods:

	Year ended December 31				
	1988	1987	1986	1985	1984
	(thousands of dollars)				
Revenues					
Iron ore and gold royalties	\$32,220	\$32,612	\$38,298	\$33,916	\$32,741
Dividends					
IOC	9,804	3,495	8,530	8,893	10,487
Hanna	5,368	4,353	2,383	1,757	1,363
Other revenues ⁽¹⁾	569	1,684	4,045	1,427	392
	<u>47,961</u>	<u>42,144</u>	<u>53,256</u>	<u>45,993</u>	<u>44,983</u>
Expenses					
Operations and administration ⁽²⁾	6,614	6,625	10,490	12,122	11,268
Depreciation, depletion and amortization	5,005	5,005	6,372	6,655	5,235
	<u>11,619</u>	<u>11,630</u>	<u>16,862</u>	<u>18,777</u>	<u>16,503</u>
Operating income	<u>\$36,342</u>	<u>\$30,514</u>	<u>\$36,394</u>	<u>\$27,216</u>	<u>\$28,480</u>

Notes:

- (1) Includes \$2,290,000 in 1986 arising from the windup of Coleman Collieries Limited.
- (2) Includes Newfoundland royalty tax of \$6,502,000 in 1988, \$6,237,000 in 1987, \$7,320,000 in 1986, \$6,400,000 in 1985 and \$5,972,000 in 1984.

Iron Ore Interests

Land

In the Labrador district of Newfoundland, Labrador Mining has 19 mining licenses covering 36,741 acres and 12 mining leases covering 25,595 acres. Both licenses and leases have been granted to Labrador Mining by the Province of Newfoundland. The licenses entitle Labrador Mining to carry out exploration work in the area covered by the licence. Mining leases can be obtained to cover any part of a license area and entitle the holder to engage in mining minerals on the lease. Labrador Mining has subleased or sublicensed 60,768 acres to IOC.

Iron Ore Company of Canada

IOC currently mines ore from the aforementioned lands in the Labrador district of Newfoundland which are subleased to it by Labrador Mining. IOC has no significant mining activities other than iron ore mining from the lands subleased from Labrador Mining. The remaining 89% of IOC's common shares are owned by Hanna (28%) and three major North American integrated steel producers.

IOC operates mining, concentrating and pelletizing facilities near Labrador City from which ore in concentrate and pellet form is shipped by rail to Sept-Iles, Quebec. In Sept-Iles, ore is handled at IOC-owned storage and dock-loading facilities.

Known iron ore reserves subleased to IOC will support its operations at current levels for at least 30 years. Because of its location, reserves and the scale of its operations, IOC remains an important supplier of iron ore pellets to the North American market. IOC sells pellets under long-term contracts with its steel company shareholders. Under these agreements, a fixed annual tonnage obligation is established, on which prices are subject to adjustment based on changes in market prices.

In the face of declining North American demand in recent years, international markets have increased in importance for IOC. Through its strong sales base (to its steel company shareholders), and through improved

management of production costs, IOC has been able to compete in international markets against ores from South America, the South Pacific and other regions. IOC estimates that 51.2% of its 1988 sales tonnage was to buyers outside of North America.

Hanna manages the IOC operation and acts as its exclusive sales agent charging IOC management fees and sales commissions.

The following table summarizes IOC's ore sales and financial highlights, as reported by IOC, for the indicated periods:

	Year ended December 31				
	1988	1987	1986	1985	1984
	(millions of tonnes)				
Ore sales					
Direct shipping and blended ore	0.9	1.1	1.4	1.8	1.5
Concentrates	4.1	3.0	3.9	5.0	6.0
Pellets	9.8	8.9	9.5	8.7	6.8
Total ore sales	<u>14.8</u>	<u>13.0</u>	<u>14.8</u>	<u>15.5</u>	<u>14.3</u>
	(millions of U.S. dollars)				
Sales and operating revenues	<u>\$422.2</u>	<u>\$383.8</u>	<u>\$427.7</u>	<u>\$481.4</u>	<u>\$475.0</u>
Net income ⁽¹⁾	<u>\$ 59.9</u>	<u>\$ 41.2</u>	<u>\$ 51.8</u>	<u>\$ 78.5</u>	<u>\$ 63.2</u>
Funds from operations	<u>\$ 87.4</u>	<u>\$ 60.2</u>	<u>\$ 90.5</u>	<u>\$ 72.8</u>	<u>\$109.4</u>
Dividend payments	<u>\$ 72.8</u>	<u>\$ 26.8</u>	<u>\$ 96.3</u>	<u>\$ 61.7</u>	<u>\$ 96.8</u>

Note:

- (1) Net income for the years 1987, 1986, 1985 and 1984 has been restated to give effect to revised provisions for deferred income taxes calculated in accordance with Financial Accounting Standards Board ("FASB") Statement No. 96 which was initially adopted by IOC in 1987. The revisions had the effect of increasing net income by \$13.1 million, \$2.8 million and \$0.3 million in 1987, 1986 and 1985, respectively, and decreasing net income in 1984 by \$3.8 million.

The improvement in IOC's financial performance in 1988 compared to 1987, was mainly the result of a 13.8% increase in iron ore sales tonnage and a \$25 million reduction in income taxes, arising principally from a deferred income tax recovery.

Royalty Income

Labrador Mining has subleased certain mining leases and licenses to IOC. Under the sublease, IOC must pay Labrador Mining a royalty for each tonne of ore sold. Royalties are 7% of the sale price for all products. Prices are f.o.b. vessels at Sept-Iles. During 1988, the prices for pellets and concentrates remained virtually unchanged from 1987 levels.

M. A. Hanna Company

Hanna is a diversified manufacturing and resource company based in Cleveland, Ohio. Hanna's major interests include formulated polymers and natural resources. As Norcen accounts for its investment in Hanna on a cost basis, Norcen's earnings reflect only dividends received from Hanna.

Through a number of acquisitions in 1986 and 1987, Hanna completed a transition from a company whose assets and revenues were primarily related to natural resources, to one largely devoted to the manufacture and sale of formulated polymers and related products.

In 1988, through the successful completion of a number of capital projects, Hanna increased its rubber compounding capacity by nearly 7%, its plastics compounding capacity by 5% and its formulated colorants production capacity by 6%. Late in the year, Hanna reached an agreement to purchase the assets of Southwest Chemical Services, a plastics compounding business located in LaPorte, Texas. The purchase, which was concluded in January 1989, increases Hanna's plastics compounding capacity by nearly one-third.

Hanna also sold a number of non-strategic and/or under-performing assets in 1988, including a silicon operation in Washington state, an investment in a Brazilian petrochemical company and numerous land interests.

In natural resources, Hanna has interests in oil and gas production and coal mining. Hanna also manages IOC and owns and operates dock-loading facilities in the U.S. for iron ore and coal.

In 1988, four of Hanna's directors were Norcen nominees. Subject to certain exceptions, Norcen has agreed not to increase its common share interest to more than 28.15% before July 1992. These exceptions include the right to respond to offers by others for Hanna shares under stated conditions.

The following table provides a summary of Hanna's operations, as reported by Hanna, for the periods indicated:

	Year ended December 31				
	<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1985</u>	<u>1984</u>
	(millions of U.S. dollars)				
Net sales and operating revenues	\$ <u>1,019.0</u>	\$ <u>459.4</u>	\$ <u>130.4</u>	\$ <u>187.2</u>	\$ <u>167.5</u>
Income (loss) from continuing operations before income taxes and extraordinary items	\$ <u>90.4</u>	\$ <u>37.5</u>	\$ <u>(58.2)</u>	\$ <u>(120.7)</u>	\$ <u>(6.1)</u>
Net income (loss) ⁽¹⁾	\$ <u>83.2</u>	\$ <u>36.3</u>	\$ <u>(104.5)</u>	\$ <u>(115.2)</u>	\$ <u>7.7</u>

Note:

- (1) Provisions for plant closing and write-downs of certain investments net of extraordinary gains have resulted in nonrecurring charges of \$8,400,000 in 1988, \$135,319,000 in 1986, \$138,150,000 in 1985 and \$15,403,000 in 1984.

The 122% increase in net sales and operating revenues in 1988 reflected strong growth in most business units as well as the inclusion in 1988 of the full-year results of acquisitions made in 1987. The improvement in revenues, together with \$25.6 million in net gains from asset sales and items of a non-recurring nature were the main factors contributing to the 129% increase in net income.

Other Interests

Pamour Inc. pays an annual royalty to Norcen on ore mined and milled from gold mines at Timmins and Holtyre, Ontario. The royalty formula is based on the average annual price of gold and the tonnage of ore mined and makes allowance for the impact of inflation on production costs.

ITEM 3. LEGAL PROCEEDINGS

Since 1982, the Lubicon Lake Band and others have been pursuing an action in the Courts of Alberta against Norcen and other parties, including the Government of Alberta, in an attempt to restrain exploration and development on certain lands, to enforce land claims and to receive damages in a total sum of \$900 million. At present, all pretrial proceedings have been unsuccessful. The Band is still free to prove the allegations set forth in its original Statement of Claim, in the Court of Queen's Bench in Alberta. Negotiations are now underway between the Band and representatives of the Government of Alberta and the Government of Canada to settle this matter.

Norcen is the holder of a 6.25% royalty interest in a bituminous sands lease mined by Suncor Inc. at Fort McMurray, Alberta (see "Canada - Production and Marketing - Liquid Hydrocarbons"). From the commencement of mining and start-up of the plant in 1967, Suncor calculated and paid royalty to Norcen based upon the total production from the lease. Commencing December 1986, Suncor took the position that Norcen's royalty should be calculated net of the Crown's royalty share in the bitumen and the desulphurized crude oil produced. Suncor issued a Statement of Claim seeking a declaration to this effect, and seeking recovery of the alleged overpayments in the sum of \$23.7 million together with interest. In August 1988, the Alberta Court of Queen's Bench ruled in favor of Norcen. Suncor has filed a Notice of Appeal with the Court of Appeal of Alberta. The hearing of this appeal, which is scheduled to be heard in February 1989, has been adjourned pending current settlement negotiations.

Suncor also sought, under the arbitration provisions of the sublease, confirmation of their opinion that all of the economically extractable bitumen has been recovered from the lease. In view of Suncor's expressed intention to continue mining the lease, Norcen took the position that the sublease does not contemplate or require such an arbitration proceeding. In October 1988, the Court of Queen's Bench directed that the question of the amount, if any, of economically extractable and recoverable bitumen is an arbitrable issue under the sublease, and therefore Suncor is entitled to refer the issue to arbitration. No date for the arbitration has been established.

Norcen and Suncor have recently reached an agreement in principle to resolve all disputes relating to Norcen's royalty interest without further legal proceedings or arbitrations. This agreement in principle further provides that a price sensitive royalty formula be implemented which would reduce the royalty paid to Norcen when low oil prices prevail. At current prices, such formula is not expected to have a material effect on 1989 results. This agreement in principle will not be effective until approved by the respective Boards of Directors of Suncor and Norcen, and all documentation has been completed and executed.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

During the fourth quarter of 1988, no matters were submitted to a vote of security holders through the solicitation of proxies or otherwise.

PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Reference is made to the Supplemental Information titled "Quarterly and other financial data" and Note 9 to the Consolidated Financial Statements which are included in Part II, Item 8 of this report.

At January 31, 1989, there were 10,867 registered holders of the Company's Multiple Voting Ordinary Shares and 11,833 registered holders of the Company's Subordinate Voting Ordinary Shares.

There are no limitations under Canadian law or the Company's Restated Articles of Incorporation or By-laws on the right of non-Canadians to hold or vote securities of the Company.

The Company's 8.12% First Preference Shares, Series A, Multiple Voting Ordinary Shares and Subordinate Voting Ordinary Shares are listed on the Toronto and Montreal stock exchanges, and application has been made to list these same shares on the American Stock Exchange.

There are no restrictions on the export or import of capital which affect the remittance of dividends, interest or other payments to nonresident holders of the Company's securities.

The Investment Canada Act sets forth notification requirements for certain smaller types of business acquisitions and review requirements for acquisitions of larger businesses, both triggered by the involvement of non-Canadians. Any acquisition of the latter nature must be of a likely net benefit to Canada to gain governmental approval. The Act does not apply to the purchase of shares or securities of a corporation where such purchases would not give the purchasers effective control of the corporation.

Cash dividends paid to shareholders resident in the United States are generally subject to Canadian withholding tax at a rate of 15%. Cash dividends paid to other nonresidents of Canada will generally be subject to Canadian withholding tax at a maximum rate of 25%, depending upon applicable tax treaties. Stock dividends paid to nonresidents are subject to Canadian withholding tax on the same basis as cash dividends except that the amount of the dividend subject to withholding tax is equal to the paid-up capital of the shares issued as payment of the dividend. Interest paid or credited in respect of the Company's debt securities held by nonresidents of Canada may also be subject to Canadian withholding tax depending upon the terms and provisions of such securities.

ITEM 6. SELECTED FINANCIAL DATA

	Year ended December 31				
	1988	1987	1986	1985	1984
	(millions of dollars except per share amounts)				
Sales and other revenues					
Oil and gas	\$359.0	\$393.5	\$325.9	\$465.1	\$443.0
Propane marketing	314.4	288.3	217.4	110.0	71.4
Mineral resources	48.0	42.1	53.3	46.0	45.0
Investment and other revenues	10.1	10.8	18.7	44.8	10.8
	<u>\$731.5</u>	<u>\$734.7</u>	<u>\$615.3</u>	<u>\$665.9</u>	<u>\$570.2</u>
Earnings from continuing operations	\$ 91.7	\$ 99.2	\$ 50.0	\$119.7	\$ 82.5
Earnings of gas utilities					21.8
Earnings before extraordinary item	91.7	99.2	50.0	119.7	104.3
Dividends on preference shares	8.1	16.0	18.9	11.7	11.7
Earnings applicable to ordinary shares before extraordinary item	<u>\$ 83.6</u>	<u>\$ 83.2</u>	<u>\$ 31.1</u>	<u>\$108.0</u>	<u>\$ 92.6</u>
Cash generated from operations	<u>\$244.2</u>	<u>\$266.7</u>	<u>\$204.9</u>	<u>\$228.9</u>	<u>\$214.5</u>
Earnings per ordinary share from continuing operations	\$ 1.43	\$ 1.60	\$ 0.64	\$ 2.03	\$ 1.26
Dividends per ordinary share	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50
	December 31				
	1988	1987	1986	1985	1984
	(millions of dollars)				
Capitalization					
Non-convertible long-term debt (excluding current maturities)	\$429.5	\$ 409.1	\$ 454.0	\$ 738.5	\$ 335.1
Convertible subordinated debentures	299.0	299.4	150.0		
Minority interests	16.5	15.2	15.2	14.6	13.2
Redeemable preference shares	100.8	102.0	256.4	158.5	158.7
Ordinary shareholders' equity	887.7	828.6	600.0	609.3	645.9
	<u>\$1,733.5</u>	<u>\$1,654.3</u>	<u>\$1,475.6</u>	<u>\$1,520.9</u>	<u>\$1,152.9</u>
Total assets	<u>\$2,315.1</u>	<u>\$2,233.6</u>	<u>\$2,156.2</u>	<u>\$2,191.3</u>	<u>\$1,849.9</u>

Reference is made to Note 15 to the Consolidated Financial Statements for information as to "United States accounting principles" which is included in Part II, Item 8 of this report. The effect of the application of the United States generally accepted accounting principles on the above financial information would be as follows:

	Year ended December 31				
	<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1985</u>	<u>1984</u>
	(millions of dollars except per share amounts)				
Earnings from continuing operations based on United States accounting principles	<u>\$105.0</u>	<u>\$ 97.3</u>	<u>\$ 5.7</u>	<u>\$111.2</u>	<u>\$ 53.8</u>
Earnings (loss) per ordinary share from continuing operations	<u>\$ 1.42</u>	<u>\$ 1.35</u>	<u>\$(0.27)</u>	<u>\$ 1.87</u>	<u>\$ 0.75</u>
Ordinary shareholders' equity	<u>\$788.1</u>	<u>\$715.8</u>	<u>\$489.0</u>	<u>\$522.5</u>	<u>\$567.5</u>

Historic Canadian Dollar to United States Dollar Exchange Rates

Since June 1, 1970, the Government of Canada has permitted a floating exchange rate to determine the value of the Canadian dollar against the United States dollar. The high, low, average and period end noon buying rates for the Canadian dollar equivalent of the United States dollar, as reported by the Federal Reserve Bank of New York, were as follows:

	January 1 to January 31 <u>1989</u>	Year ended December 31				
		<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1985</u>	<u>1984</u>
High	\$0.8471	\$0.8447	\$0.7691	\$0.7331	\$0.7587	\$0.8054
Low	0.8319	0.7688	0.7254	0.6954	0.7107	0.7492
Average	0.8394	0.8126	0.7542	0.7196	0.7325	0.7710
Period end	0.8450	0.8384	0.7691	0.7241	0.7158	0.7566

The dividends per ordinary share in Canadian and United States dollars paid during the five years ended December 31, 1988, were as follows:

	Year ended December 31				
	<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1985</u>	<u>1984</u>
Canadian	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50
United States	\$0.41	\$0.38	\$0.36	\$0.37	\$0.39

ITEM 7. MANAGEMENT'S FINANCIAL ANALYSIS AND DISCUSSION

After experiencing an outstanding recovery in 1987 over 1986, financial performance in 1988 was adversely affected by a reduction in oil prices similar to the price decline which had caused a significant drop in earnings in 1986. Improvements in all sectors of Norcen's operations, including increased contributions to income from the Propane Marketing and Mineral Resources Divisions and significant increases in production volumes in the Oil and Gas Division, were all offset by the effect of the decline in world oil prices. Apart from a temporary recovery in the second quarter, the price of WTI crude oil, which had started the year at U.S.\$17.69 per barrel, declined through most of 1988, reaching a low point of U.S.\$12.60 per barrel in early October, before gradually increasing to \$17.24 at December 31, 1988.

Net income in 1988 declined only 7%, from \$99.2 million in 1987 to \$91.7 million, despite the effect of an average oil and natural gas liquids price which was down 26%. In 1987 when the average oil and natural gas liquids price increased 23%, earnings before extraordinary items increased \$49.2 million or 98% over 1986 earnings. Cash generated from operations in 1988 declined almost proportionately to net income.

Norcen was in excellent position to withstand the significant drop in oil prices, primarily due to initiatives taken in 1986 and 1987. Staff reduction programs, improvement in productivity and reduced operating costs, together with conservative establishment of capital budgets within cash flow limitations and the improvements in the non-oil and gas segments, enabled Norcen to achieve satisfactory financial performance in 1988, notwithstanding the uncontrollable and adverse trend in pricing.

Basic earnings per share were \$1.43 compared to \$1.60 per share and \$0.64 per share in 1987 and 1986 respectively. In 1986, a write-down of Norcen's interests in certain mineral assets, reflected as an extraordinary item, reduced net earnings by \$20.1 million after deferred taxes, and earnings per share after extraordinary items to \$0.22 per share. There were no extraordinary items in 1988 or 1987.

Revenues and Expenses

Oil and Gas

In 1987, operating income from the Oil and Gas Division more than doubled to \$166.1 million from \$82.9 million in 1986. This was principally the result of a 3,272 barrel per day increase in liquids production, a 17 million cubic feet per day increase in natural gas production and an increase in the oil and natural gas liquids average price from \$16.95 per barrel to \$20.86 per barrel.

In 1988, Oil and Gas Division operating income fell by \$57.5 million to \$108.6 million. The principal factor for the reduction was the lower average price received for liquids production which, at \$15.45 per barrel was down \$5.41 from 1987 and \$1.50 lower than the 1986 average price. However, both the United States and Australian operations were able to improve their contribution to operating income as growth in their production volumes more than offset the effects of price declines.

The decline in oil price arose from the inability of OPEC to regulate and control the production quotas of its members. This resulted in significant over-production which drove crude oil prices down through most of 1988, from their target level of U.S.\$18.00 per barrel. However, unanimous agreement on new production quotas at the OPEC meeting in November has provided some optimism that average prices in 1989 will be higher than in 1988. As the agreement did not go into effect until January 1, 1989, it had no impact on financial results in 1988.

Norcen's liquid production volumes increased by 2,791 b/d to 44,872 b/d for 1988. In Canada, a 1,014 b/d increase in conventional oil and field gas liquids production arose primarily from new exploration and development success in the Hays/Enchant area in southern Alberta and enhanced recovery programs at Spirit River and West Pembina. Royalty volumes from the Fort McMurray oil sands plant also contributed an additional 245 b/d. In the United States, production increased by 149 b/d, mostly from condensate production from the new Paige Lake gas field and new development drilling at Laurel, Mississippi. Production from the Jabiru field in Australia increased by 1,297 b/d. The capacity of the production system was increased from 30,000 b/d to 60,000 b/d during the second quarter of 1988 and two additional wells were put onstream following reconnection.

Natural gas production increased 29.7 mmcf/d, of which 18.6 mmcf/d was in Canada and 11.1 mmcf/d in the United States. The Canadian production increase results from increased exports to the United States. In the U.S., the increased production arose from completion and connection of the Paige Lake development. An increase in spot market prices and movement of volumes from spot to term-based contracts yielding higher prices increased the average U.S. gas price of Norcen's production in that country by 19% over that of 1987. Norcen's average gas price for its combined Canadian and U.S. production declined from \$2.25/mcf and \$1.88/mcf in 1986 and 1987, respectively, to \$1.84 in 1988.

While the total production of oil and oil equivalents increased by 11% in 1988 over 1987, operating costs rose by \$11.3 million or 9%. Due to continuous efforts to minimize field operation and administration costs in 1988, the unit cost of oil production was \$3.50 per barrel in comparison to \$3.80 and \$4.11 per barrel in the two previous years. For natural gas, the unit cost was \$0.36/mcf in 1988, down from \$0.43/mcf and \$0.38/mcf in 1987 and 1986, respectively. The low operating costs for producing the Jabiru oil field is a significant contributor to Norcen's declining unit cost trend.

Depletion expense increased in 1988, over 1987, principally as a result of an almost comparable increase in equivalent barrels of production. As of December 31, 1988, costs excluded from the depletion pool amounted to \$91.6 million. These pertain principally to development costs for the Challis project in Australia, to exploratory costs in Papua New Guinea and at Amauligak in the Canadian frontier and to the costs of acquisition of interests in New Zealand in 1988. Challis is scheduled to start production in late 1989, and both the Papua New Guinea project and Amauligak are undergoing evaluation.

Norcen follows the Canadian Institute of Chartered Accountants guideline for full cost accounting. In accordance with the ceiling test provisions of the guideline, in 1986, the Company wrote off non-recoverable foreign costs of \$19.5 million before income taxes.

Propane Marketing

In comparison to 1986, the financial results of Norcen's Propane Marketing Division for 1988 and 1987 reflect the full-year effect of the acquisition of the assets and business of Superior Propane Limited, which occurred on June 2, 1986.

Sales and other revenues rose to \$314.4 million in 1988 from \$288.3 million in 1987 and \$217.4 million in 1986. Operating income contribution increased to \$49.3 million from \$35.1 million and \$28.3 million in 1987 and 1986, respectively.

The substantial improvement in financial performance was the result of a number of factors. In 1987, abnormal weather conditions adversely affected both the residential and the agricultural segments of the business. In 1988, an increase in sales volumes prevailed in all customer categories but particularly the auto propane sector which demonstrated a 22% improvement. The continuing process of rationalization resulting from combining the operations of three previous businesses, resulted in greater opportunities to improve productivity and manage operating costs. Sales volumes increased to 1.26 billion litres in 1988, from 1.10 billion litres in 1987 and 0.80 billion litres in 1986.

Propane profit margins in 1988 improved for all customer categories except in the auto propane sector where intense competition for market share prevailed, primarily in Western Canada.

During 1988, Superior acquired a number of small propane distribution companies, primarily in Quebec and Western Canada, which should yield an additional 62 million litres of sales volumes annually. These acquisitions were all made in the latter half of the year and had little impact on the current year results.

Operating expenses increased by 3.5% to \$93.5 million as a result of the inflationary economies of Ontario and Quebec where the company is substantially positioned.

Mineral Resources

Operating income from the Mineral Resources Division, at \$36.3 million was \$5.8 million greater than in 1987 and comparable to 1986. The 1988 increase over 1987 was principally due to the higher common share dividends received from IOC on Norcen's 11% interest. IOC increased the dividend rate to U.S.\$7.45 per share as compared to U.S.\$2.75 in 1987 and U.S.\$5.73 in 1986. Although IOC was successful in increasing its sales tonnage of iron ore pellets and concentrate from 13.0 million tonnes to 14.8 million tonnes in 1988, Norcen's royalty revenue thereon remained constant at \$32 million, as lower selling prices on both pellets and concentrate production, and the higher value of the Canadian dollar offset higher volumes.

The 1986 and 1987 acquisition and diversification program which has converted Hanna from a natural resources corporation into a polymer and plastics-based company with subsidiary interests in natural resources, has significantly improved financial performance. Net income increased to U.S.\$83.2 million from U.S.\$36.3 million in 1987. The results in 1988 include U.S.\$25.6 million of non-recurring credits, mostly arising from the sale of non-strategic assets. In 1988, dividends received from Hanna increased to \$5.4 million from \$4.4 million in 1987.

Corporate

Corporate investment and other revenues declined by \$0.7 million between 1988 and 1987, due mainly to the redemption of \$8 million of Inter-City Gas preference shares on January 1, 1988.

Financial expense, which in 1987 was \$67.7 million, declined by \$15 million to \$52.7 million in 1988. The major reason for the reduction was foreign exchange gains on outstanding U.S. debt, arising from the increase in the Canadian dollar, which stood at \$1.19 to the U.S. dollar as compared to \$1.30 at December 31, 1987. Repayment of U.S.\$69 million term loans in November was a major contributor to these gains. Both long-term and short-term interest expense decreased as lower debt levels prevailed for most of the year, although these were offset by an increase in floating interest rates.

In 1988, Norcen's effective corporate tax rate fell to 39% from 42.3% in 1987 and 45.4% in 1986. The elimination of the Petroleum Gas Revenue Tax was the primary reason for the decline in 1987, whereas the reduction in 1988 arose primarily from the mid-year 7% drop in the federal statutory income tax rate. In 1988, as in 1987, Norcen's liability for current taxes increased as the level of tax pools available to shelter income continued to decline.

Capital Spending

For 1988, capital expenditures increased to \$198.7 million from \$143.9 million in 1987 and \$159.9 million in 1986. The increased expenditures, which relate entirely to the Oil and Gas Division, reflect an escalation of activity in all areas. Expenditures in Western Canada increased, particularly on development projects, as Norcen maximized efforts to place reserves on production and increase cash flows. In the Canadian frontier, Norcen completed its delineation program at Amauligak. Expenditures increased in the United States, where Norcen commenced an offshore drilling program in the Gulf of Mexico. In Australia, expenditures were increased to extend the successful exploration program and to place the Challis field on production in late 1989.

In July 1988, Norcen purchased a 20% interest in an offshore permit on the west coast of New Zealand for \$33.7 million, and in October, purchased additional properties for \$10.3 million to add to its interest in the Cherhill field in Alberta. Propane marketing capital spending was \$32.2 million, which included acquisition of a number of small propane distribution companies for \$11.4 million. In 1986, Norcen, which had incurred a \$159.9 million capital program, also acquired oil and gas properties on its withdrawal from the Gulf Partnership, and purchased the business and assets of Superior Propane for \$143.2 million.

Liquidity

In May 1987, Norcen sold \$150 million 5% adjustable rate convertible subordinated debentures, the proceeds from which were used to redeem demand bank credits following a similar \$150 million issue in November 1986, which carried an interest rate of 6%. During 1987, borrowings were reduced by \$32.5 million after capital expenditures, dividends and all other factors.

On January 27, 1988, Norcen redeemed in full its 13-1/4% Series C and 12-1/2% Series D debentures which were due to mature on December 31, 1990, at a cost of \$20.9 million. In November 1988, Norcen completed the syndication of a U.S.\$125 million transferable term bank loan facility in the European market. This loan, which matures in full on November 10, 1995, has an average cost of 0.25% over the London Interbank Offered Rate. In November, U.S.\$100 million of this loan was drawn down and used to repay two existing U.S. dollar-denominated term bank loans of U.S.\$69 million and short-term borrowings of \$31 million. The remaining balance of U.S.\$25 million is projected to be drawn down in early 1989 to meet working capital requirements. In 1988, internally generated funds fell short of capital and other expenditures, including acquisitions, by \$11.4 million. The increase in long-term debt was used to finance the shortfall and to reduce the net cash and demand bank credit position by \$16.3 million.

For 1989, capital expenditures of \$215.4 million have been approved by the Board of Directors. It is projected that these will be entirely financed by internally generated funds. Excess funds will be used for preference and ordinary share dividends, and to reduce short-term borrowings. For any additional commitments, Norcen has unused lines of credit available, which at December 31, 1988, were \$197.3 million.

On February 14, 1989, the Company agreed in principle, subject to certain conditions and closing adjustments, to purchase for a consideration of \$528 million, substantially all of the oil and gas assets of Westmin Resources Limited ("Westmin"), including working capital of approximately \$56 million. Completion of the purchase and sale is subject to receipt of favorable tax rulings on certain aspects of the transaction and approval by Westmin voting shareholders. (See Note 3 to the Consolidated Financial Statements which is included in Part II, Item 8 of this report.)

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Reference is made to the "Index to Consolidated Financial Statements and Supplemental Information" on page 34 of this report.

ITEM 9. DISAGREEMENTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Reference is made to "Election of directors" in the Proxy Circular and Statement for the 1989 Annual Meeting which information is incorporated herein by reference.

Executive officers not nominated as directors:

<u>Name</u>	<u>Age</u> ⁽¹⁾	<u>Position</u> ⁽²⁾	<u>Date of Appointment to Present Position</u>
Barry D. Cochrane Calgary, Alberta	53	Senior Vice-President, Exploration and Production	October 14, 1986
Paul H. Palmer Calgary, Alberta	55	Senior Vice-President and Chief Financial Officer	October 14, 1986
William T. Kilbourne Calgary, Alberta	54	Vice-President, Legal and Secretary	February 22, 1983
Wayne M. Newhouse Calgary, Alberta	49	Vice-President, Production	July 11, 1983

<u>Name</u>	<u>Age</u> ⁽¹⁾	<u>Position</u> ⁽²⁾	<u>Date of Appointment to Present Position</u>
Gordon B. Singer Calgary, Alberta	48	Vice-President and Comptroller	October 14, 1986
Arthur L. Wood Calgary, Alberta	57	Vice-President, Engineering and Marketing	October 14, 1986

(1) At February 14, 1989.

(2) These positions pertain to the Registrant.

All of the above-named executive officers are traditionally appointed annually and have been engaged for more than five years in their present principal occupations or in other executive capacities with Norcen or its affiliates.

ITEM 11. EXECUTIVE COMPENSATION

Reference is made to "Management remuneration, benefits and transactions" in the Proxy Circular and Statement for the 1989 Annual Meeting which information is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Reference is made to "Voting and ownership of shares" in the Proxy Circular and Statement for the 1989 Annual Meeting which information is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Reference is made to "Management remuneration, benefits and transactions" in the Proxy Circular and Statement for the 1989 Annual Meeting which information is incorporated herein by reference.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

- a) All Exhibits filed with this report or incorporated herein by reference are listed in the "Exhibit Index" on pages 71 through 73 of this report.
- b) Reference is made to the "Index to Consolidated Financial Statements and Supplemental Information" on page 34 of this report.
- c) There were no reports on Form 8-K filed with the Securities and Exchange Commission during the quarter ended December 31, 1988.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Norcen Energy Resources Limited

February 14, 1989

By: "Paul H. Palmer"
Paul H. Palmer, Senior Vice-President
and Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report is signed below on February 14, 1989 by the following persons (except as noted) on behalf of the Registrant and in the capacities indicated.

"Edward G. Battle"
Edward G. Battle

President, Chief Executive Officer and
Director (Principal Executive Officer)

"Paul H. Palmer"
Paul H. Palmer

Senior Vice-President and Chief
Financial Officer
(Principal Financial and Accounting Officer)

"Paul M. Marshall"
Paul. M. Marshall Chairman of the Board
and Director

"Conrad M. Black"
Conrad M. Black Vice-Chairman
and Director

"J. Trevor Eyton"
J. Trevor Eyton Vice-Chairman
and Director

"Douglas G. Bassett"
Douglas G. Bassett Director

"G. Montegu Black"
G. Montegu Black Director

"Jack L. Cockwell"
Jack L. Cockwell Director

"E. Jacques Courtois"
E. Jacques Courtois Director

"Robert Després"
Robert Després Director

"Robert A. Dunford"
Robert A. Dunford Director

"Fredrik S. Eaton"
Fredrik S. Eaton Director

"David W. Kerr"
David W. Kerr Director

"E. Peter Loughheed"
E. Peter Loughheed Director

"W. John McKeag"
W. John McKeag Director

"Alfred Powis"
Alfred Powis Director

"Clifford A. Rae"
Clifford A. Rae Director

"Martin D. Walker"
Martin D. Walker Director

"John R. Yarnell"
John R. Yarnell Director

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The following Consolidated Financial Statement Schedules should be read in conjunction with the consolidated financial statements referred to above. The Consent and Report of Independent Auditors is included on page 76 of this report.

Investments (Schedule I) for the years ended December 31, 1988 and 1987	59
Amounts receivable from related parties and underwriters, promoters, and employees other than related parties (Schedule II) for the years ended December 31, 1988, 1987 and 1986	61
Properties, plant and equipment (Schedule V) for the years ended December 31, 1988, 1987 and 1986	64
Accumulated depreciation and depletion of properties, plant and equipment (Schedule VI) for the years ended December 31, 1988, 1987 and 1986	67
Short-term borrowings (Schedule IX) for the years ended December 31, 1988, 1987 and 1986	70

All other schedules are omitted because they are not applicable, not required or because the required information is included in the consolidated financial statements or notes thereto.

AUDITORS' REPORT

To the Shareholders of
NORCEN ENERGY RESOURCES LIMITED

We have examined the consolidated balance sheet of Norcen Energy Resources Limited as at December 31, 1988 and 1987 and the consolidated statements of earnings, retained earnings and changes in financial position for each of the years in the three year period ended December 31, 1988. 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, 1988 and 1987 and the results of its operations and the changes in its financial position for each of the years in the three year period ended December 31, 1988 in accordance with generally accepted accounting principles applied on a consistent basis.

Calgary, Canada
February 3, 1989
(February 14, 1989 as to Note 3)

"Thorne Ernst & Whinney"
Chartered Accountants

NORCEN ENERGY RESOURCES LIMITED
ACCOUNTING POLICIES
Years ended December 31, 1988, 1987 and 1986

The Annual Report and the accompanying consolidated financial statements have been prepared by Management and approved by the Board of Directors. The consolidated financial statements have been prepared in accordance with Canadian generally accepted accounting principles applied on a consistent basis and comply with United States disclosure requirements in all material respects. The principles used were those judged by Management to be the most appropriate in the circumstances. Management acknowledges responsibility for the fairness, integrity and objectivity of all financial information contained in the Annual Report including the consolidated financial statements, and that all information contained in the Annual Report is consistent with the consolidated financial statements. The Company's auditors are responsible for auditing the consolidated financial statements and expressing an opinion thereon. The Audit Committee of the Board of Directors is responsible for reviewing the annual consolidated financial statements and reporting thereon to the Board, making recommendations to the Board with respect to the appointment and remuneration of the Company's auditors, reviewing the scope of the audit and reviewing the Company's internal financial controls.

Basis of presentation

The consolidated financial statements include the accounts of Norcen and all of its subsidiaries. Norcen's business is organized into three operational segments: oil and gas, propane marketing and mineral resources. Certain prior years' comparative figures have been reclassified for comparative purposes.

Foreign currency translation

Monetary assets and liabilities are translated at the rates of exchange prevailing at the balance sheet dates. Long-term assets are translated at rates in effect at the dates the assets were acquired. Sales and other revenues and costs and expenses are translated at the average rate of exchange during the month incurred. The resulting gains and losses are included in earnings. Any foreign exchange gains or losses arising on translation of long-term liabilities are deferred and amortized over the remaining term of the liabilities.

Inventories

Inventories are valued at the lower of cost applied on a first-in, first-out basis, or market value determined on the basis of replacement cost or net realizable value.

Properties, plant and equipment

Oil and gas

Oil and gas properties and production equipment, in accordance with the full cost method of accounting, include expenditures related to the acquisition, exploration and development of oil and gas reserves, whether or not potentially productive. These costs are depleted and depreciated, on a country-by-country basis (prior to January 1, 1987, on a world-wide basis), using the unit of production method based on total estimated proved recoverable reserves. Natural gas reserves and production are converted to equivalent barrels of crude oil based on relative energy content. Proceeds on sale of properties are credited to asset costs.

Certain oil and gas related facilities are recorded at cost and depreciated over their estimated useful service life on the straight-line method at various rates.

Propane Marketing

Propane marketing equipment is recorded at cost. These costs are depreciated over their estimated useful service life on the straight-line method at various rates.

Mineral resources

Mineral resources properties are recorded at cost less impairment. Exploration costs are written off in the year incurred. When a property is determined to be economic, all subsequent costs are deferred and amortized against related production over a period not exceeding forty years.

Deferred revenues

Deferred revenues include payments received under take-or-pay gas contracts and deferred foreign exchange gains on long-term debt. *Deferred gas revenues* are included in revenue as the gas to which the payments relate is delivered. Deliveries, which are to be made over a ten year period, commenced in 1984, and are governed by contractual arrangements.

Earnings per ordinary share

Earnings per ordinary share have been calculated using the weighted average number of ordinary shares outstanding during the year (58,495,000 in 1988; 52,171,000 in 1987; 48,877,000 in 1986). Fully diluted earnings per ordinary share assumes the exercise of all rights to acquire ordinary shares which have a dilutive effect.

NORCEN ENERGY RESOURCES LIMITED

CONSOLIDATED BALANCE SHEET AS AT DECEMBER 31, 1988 AND 1987 (Thousands of Canadian dollars)

ASSETS		1988	1987
CURRENT ASSETS			
Cash	\$	6,171	\$ 15,594
Accounts receivable		129,139	138,323
Inventories		<u>24,962</u>	<u>24,733</u>
Total current assets		160,272	178,650
INVESTMENTS (Note 4)		422,596	436,590
PROPERTIES, PLANT AND EQUIPMENT (Note 5)		1,719,768	1,603,487
OTHER ASSETS		<u>12,491</u>	<u>14,881</u>
		<u>\$2,315,127</u>	<u>\$2,233,608</u>
LIABILITIES			
CURRENT LIABILITIES			
Demand bank credits (Note 6)	\$	29,700	\$ 55,382
Accounts payable and accrued charges		104,297	86,845
Income and other taxes		17,487	8,343
Current maturities on long-term debt		<u>12,834</u>	<u>25,551</u>
Total current liabilities		<u>164,318</u>	<u>176,121</u>
NON-CONVERTIBLE LONG-TERM DEBT (Note 7)		<u>429,534</u>	<u>409,114</u>
CONVERTIBLE SUBORDINATED DEBENTURES (Note 8)		<u>299,016</u>	<u>299,416</u>
DEFERRED REVENUES		<u>50,026</u>	<u>50,698</u>
DEFERRED INCOME TAXES		<u>367,274</u>	<u>352,450</u>
MINORITY INTERESTS IN SUBSIDIARIES		<u>16,491</u>	<u>15,186</u>
SHAREHOLDERS' EQUITY			
CAPITAL STOCK (Note 9)			
Non-convertible preference shares		100,000	101,186
Convertible preference shares		800	800
Ordinary shares - Multiple Voting		135,782	135,375
- Subordinate Voting		285,180	280,850
RETAINED EARNINGS (Note 9(c))		<u>466,706</u>	<u>412,412</u>
		<u>988,468</u>	<u>930,623</u>
		<u>\$2,315,127</u>	<u>\$2,233,608</u>

Approved by the Board:

(Signed) "P.M. Marshall", Director

(Signed) "E.G. Battle", Director

NORCEN ENERGY RESOURCES LIMITED

CONSOLIDATED STATEMENT OF EARNINGS YEARS ENDED DECEMBER 31, 1988, 1987 AND 1986 (Thousands of Canadian dollars)

	<u>1988</u>	<u>1987</u>	<u>1986</u>
SALES AND OTHER REVENUES			
Oil and gas	\$359,057	\$393,482	\$325,925
Propane marketing	314,387	288,256	217,435
Mineral resources	47,961	42,144	53,256
Investment and other revenues	<u>10,070</u>	<u>10,802</u>	<u>18,694</u>
	<u>731,475</u>	<u>734,684</u>	<u>615,310</u>
COSTS AND EXPENSES			
Production, operations and administration	227,745	212,940	192,550
Product purchases	158,408	152,181	127,368
Depreciation and depletion	141,073	127,013	109,696
Interest on long-term debt	58,100	60,036	63,615
Other financial expense	(5,427)	7,647	16,890
Income taxes (Note 10)	59,107	73,916	47,705
Minority interests in subsidiaries	725	1,778	613
Write-down of non-productive assets (Note 11)			<u>6,905</u>
	<u>639,731</u>	<u>635,511</u>	<u>565,342</u>
EARNINGS BEFORE EXTRAORDINARY ITEM	91,744	99,173	49,968
EXTRAORDINARY ITEM (Note 12)	—	—	<u>(20,130)</u>
NET EARNINGS	<u>\$ 91,744</u>	<u>\$ 99,173</u>	<u>\$ 29,838</u>
DIVIDENDS ON PREFERENCE SHARES	<u>\$ 8,137</u>	<u>\$ 15,946</u>	<u>\$ 18,881</u>
EARNINGS APPLICABLE TO ORDINARY SHARES			
Before extraordinary item	<u>\$ 83,607</u>	<u>\$ 83,227</u>	<u>\$ 31,087</u>
Including extraordinary item	<u>\$ 83,607</u>	<u>\$ 83,227</u>	<u>\$ 10,957</u>
EARNINGS PER ORDINARY SHARE			
Before extraordinary item			
Basic	\$ 1.43	\$ 1.60	\$ 0.64
Fully diluted	\$ 1.24	\$ 1.38	\$ 0.63
Including extraordinary item			
Basic	\$ 1.43	\$ 1.60	\$ 0.22
Fully diluted	\$ 1.24	\$ 1.38	\$ 0.22

NORCEN ENERGY RESOURCES LIMITED

CONSOLIDATED STATEMENT OF RETAINED EARNINGS YEARS ENDED DECEMBER 31, 1988, 1987 and 1986 (Thousands of Canadian dollars)

	<u>1988</u>	<u>1987</u>	<u>1986</u>
BALANCE AT BEGINNING OF YEAR	\$412,412	\$355,018	\$368,486
Net earnings	<u>91,744</u> <u>504,156</u>	<u>99,173</u> <u>454,191</u>	<u>29,838</u> <u>398,324</u>
Dividends			
Non-convertible First Preference Shares (Note 9)	8,137	8,196	7,256
Junior Preference Shares - 1983 series		7,750	11,625
Ordinary Shares (Note 9)			
- Multiple Voting	13,670	13,647	13,577
- Subordinate Voting	15,571	12,085	10,848
Loss on redemption of preference shares	<u>72</u> <u>37,450</u>	<u>101</u> <u>41,779</u>	<u> </u> <u>43,306</u>
BALANCE AT END OF YEAR	<u>\$466,706</u>	<u>\$412,412</u>	<u>\$355,018</u>

NORCEN ENERGY RESOURCES LIMITED

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION YEARS ENDED DECEMBER 31, 1988, 1987 and 1986 (Thousands of Canadian dollars)

	<u>1988</u>	<u>1987</u>	<u>1986</u>
OPERATING ACTIVITIES			
Earnings before extraordinary item	\$ 91,744	\$ 99,173	\$ 49,968
Add non-cash items:			
Depreciation and depletion	141,073	127,013	109,696
Deferred income taxes	14,793	39,435	25,615
Write-down of non-productive assets			19,470
Other	<u>(3,436)</u>	<u>1,079</u>	<u>141</u>
Cash generated from operations	244,174	266,700	204,890
Proceeds on withdrawal from Partnership with Gulf Canada Limited			120,000
Sale of oil and gas assets		17,377	8,923
Deferred gas revenues	<u>(8,272)</u>	<u>(6,776)</u>	<u>(4,027)</u>
Decrease (increase) in working capital*	<u>34,814</u>	<u>(14,423)</u>	<u>(11,334)</u>
Total cash generated	270,716	262,878	318,452
Dividends paid	<u>37,378</u>	<u>41,678</u>	<u>43,306</u>
Net cash available	<u>233,338</u>	<u>221,200</u>	<u>275,146</u>
INVESTING ACTIVITIES			
Expenditures on properties, plant and equipment, net	254,117	143,859	159,910
Acquisition of the net assets of Superior Propane Limited (Note 2)			143,180
Investments	<u>(13,147)</u>	<u>48,057</u>	<u>7,453</u>
Other	<u>3,739</u>	<u>(3,200)</u>	<u>6,227</u>
	<u>244,709</u>	<u>188,716</u>	<u>316,770</u>
Excess (deficiency) of cash before external financing	<u>(11,371)</u>	<u>32,484</u>	<u>(41,624)</u>
FINANCING ACTIVITIES			
Non-convertible long-term debt	24,551	(47,705)	(271,680)
Convertible subordinated debentures	<u>(400)</u>	<u>149,416</u>	<u>150,000</u>
Preference and ordinary shares	<u>3,479</u>	<u>16,776</u>	<u>101,949</u>
	<u>27,630</u>	<u>118,487</u>	<u>(19,731)</u>
CHANGE IN CASH AND DEMAND BANK CREDITS	16,259	150,971	(61,355)
CASH AND DEMAND BANK CREDITS AT BEGINNING OF YEAR	<u>(39,788)</u>	<u>(190,759)</u>	<u>(129,404)</u>
CASH AND DEMAND BANK CREDITS AT END OF YEAR	<u>\$ (23,529)</u>	<u>\$ (39,788)</u>	<u>\$ (190,759)</u>

*Working capital excludes cash, demand bank credits and current maturities on long-term debt.

NORCEN ENERGY RESOURCES LIMITED

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Tabular amounts are in thousands of Canadian dollars except where noted)

1. Accounting Policies

The information on pages 36 and 37 presents a summary of the principal accounting policies of the Company and is an integral part of these consolidated financial statements.

2. Acquisition Of Superior Propane Limited

On June 2, 1986, Norcen acquired the assets and business of Superior Propane Limited from Gulf Canada Resources for total cash consideration of \$146,686,000. Superior Propane Limited was engaged in the marketing and distribution of propane and related products to commercial, industrial and residential customers in Canada. The acquisition was accounted for by the purchase method and is summarized as follows:

Assets acquired, at fair values	
Cash	\$ 3,506
Other working capital	20,610
Properties, plant and equipment	<u>122,570</u>
Cash consideration	<u>\$146,686</u>

The results of operations of this acquisition have been included in the consolidated statement of earnings from June 2, 1986, when the assets and business of Superior Propane Limited and Norcen's other propane marketing businesses were combined into one company, Superior Propane Inc.

3. Subsequent Event

On February 14, 1989, the Company agreed in principle, subject to certain conditions and closing adjustments, to purchase for a consideration of \$528 million, substantially all of the oil and gas assets of Westmin Resources Limited ("Westmin"), including working capital of approximately \$56 million. The purchase consideration is to be satisfied by transfer by Norcen to Westmin of its 28% interest in M.A. Hanna Company ("Hanna"), the value of which has been agreed among the parties to be approximately \$213 million subject to Norcen's right to participate in any gain realized prior to December 31, 1990, by Westmin on a sale of the Hanna shares at a price in excess of U.S.\$28, and the issue by Norcen of \$65 million 11% unsecured debentures due 2004 and of \$250 million 8% subordinated exchangeable debentures, exchangeable at the holder's option into Norcen Multiple Voting Ordinary Shares at a conversion price of \$25 per share at any time prior to maturity in 1999 and at the issuer's option on maturity at a market related price.

Completion of the purchase and sale is subject to the receipt of favorable tax rulings on certain aspects of the proposed sale and approval by the voting shareholders of Westmin at a meeting to be called during the second quarter of 1989.

4. Investments (at cost)

	December 31	
	<u>1988</u>	<u>1987</u>
M. A. Hanna Company (i)		
Shares - common	\$175,204	\$175,204
- preference	37,590	37,590
Inter-City Gas Corporation		
Shares - preference (ii)	68,999	77,000
Brascan Limited		
Shares - preference	65,000	65,000
Iron Ore Company of Canada		
Shares - common	53,310	53,310
ICG Utilities (Ontario) Ltd.		
Shares - preference	2,300	3,450
Notes receivable from directors, officers and employees	12,750	14,654
Other investments	<u>7,443</u>	<u>10,382</u>
	<u>\$422,596</u>	<u>\$436,590</u>

(i) An agreement with Hanna entitles Norcen to nominate four directors to Hanna's board of directors and, subject to certain exceptions, Norcen has agreed not to increase its common share interest in Hanna before 1992. These exceptions include the right to respond to offers by others for Hanna shares under stated conditions. The quoted market values of the Hanna common and preference shares at December 31, 1988, are \$138,327,000 and \$41,209,000 respectively (\$100,742,000 and \$37,332,000 at December 31, 1987).

(ii) Pursuant to a purchase fund obligation, the preferred shares are to be redeemed on January 1 for each of the years 1988 through 1995. The redemption amounts are \$8,001,000 in 1989 to 1990; \$9,999,500 in 1991 to 1993; \$11,998,000 in 1994 and \$11,000,500 in 1995. These preferred shares cannot be sold without the consent of the issuer.

Dividend and interest income from investments was \$25,764,000 in 1988 (\$18,726,000 in 1987; \$23,256,000 in 1986). Dividend income of \$15,522,000 in 1988 (\$8,173,000 in 1987; \$10,645,000 in 1986) is included in mineral resource revenues.

5. Properties, Plant And Equipment

	<u>Oil and gas</u>	<u>Propane marketing</u>	<u>Mineral resources</u>	<u>Total</u>
December 31, 1988				
Cost	\$2,170,961	\$238,573	\$190,146	\$2,599,680
Accumulated depreciation and depletion	<u>806,479</u>	<u>47,736</u>	<u>25,697</u>	<u>879,912</u>
Net	<u>\$1,364,482</u>	<u>\$190,837</u>	<u>\$164,449</u>	<u>\$1,719,768</u>

	<u>Oil and gas</u>	<u>Propane marketing</u>	<u>Mineral resources</u>	<u>Total</u>
December 31, 1987				
Cost	\$1,949,164	\$204,882	\$190,146	\$2,344,192
Accumulated depreciation and depletion	<u>686,525</u>	<u>33,238</u>	<u>20,942</u>	<u>740,705</u>
Net	<u>\$1,262,639</u>	<u>\$171,644</u>	<u>\$169,204</u>	<u>\$1,603,487</u>

Administrative overhead expenditures of \$9,035,000 in 1988 (\$11,252,000 in 1987; \$18,838,000 in 1986) directly related to exploration and development activities have been capitalized.

Expenditures in the amount of \$91,643,000 at December 31, 1988 (\$15,969,000 in 1987) relating to undeveloped or unevaluated properties have been excluded from the depletion base.

6. Demand Bank Credits

Norcen has the following obligations under established bank lines of credit of \$227,000,000 at December 31, 1988 (\$279,000,000 at December 31, 1987):

	<u>December 31, 1988</u>		<u>December 31, 1987</u>	
	<u>Average Interest Rate</u>	<u>Amount</u>	<u>Average Interest Rate</u>	<u>Amount</u>
Commercial paper	10.9%	\$ 29,700	9.0%	\$ 52,000
Bank loans - unsecured			9.8%	<u>3,382</u>
		<u>\$ 29,700</u>		<u>\$ 55,382</u>
Unused lines of credit at period end		<u>\$197,300</u>		<u>\$223,618</u>

7. Non-Convertible Long-Term Debt

	<u>December 31</u>	
	<u>1988</u>	<u>1987</u>
11-1/4% secured sinking fund debentures, 1989-1996	\$ 8,350	\$ 10,523
Term bank credits, 1990-1995 (i)	256,087	243,759
13-1/4% sinking fund debentures, payable through 2003	47,575	50,050
12-1/2% - 13-1/4% debentures, 1990-1993	60,000	80,876
7.6% subordinated note, 1989-1999	45,628	47,300
Capital lease obligations, 1989-1992 (ii)	24,173	22,867
Other	<u>555</u>	<u>166</u>
	442,368	455,541
Less: current maturities (iii)	<u>12,834</u>	<u>46,427</u>
Total non-convertible long-term debt	<u>\$429,534</u>	<u>\$409,114</u>

The above balance includes non-convertible long-term debt before current maturities of \$119,270,000 at December 31, 1988 (\$113,971,000 at December 31, 1987), denominated in United States dollars translated at rates of exchange at the balance sheet date.

Non-convertible long-term debt maturities and sinking fund requirements for each of the four years subsequent to 1989 are as follows:

1990 - \$18,696,000; 1991 - \$18,695,000; 1992 - \$18,537,000; 1993 - \$76,486,000.

Future minimum lease payments under capital lease obligations for each of the next five years are as follows:

1989 - \$8,577,000; 1990 - \$7,087,000; 1991 - \$5,606,000; 1992 - \$5,311,000; 1993 - \$2,505,000.

- (i) A term bank credit line is established with three Canadian banks, amounting to \$150,000,000 as at December 31, 1988 (\$243,759,000 at December 31, 1987), which requires semi-annual principal repayments commencing January 1990 to retire \$75,000,000 of the loan by July 31, 1995, with the balance due July 31, 1995. By way of a currency and interest rate swap agreement made in February 1987, \$125,000,000 of this credit is, effectively, repayable in U.S. funds of \$93,963,750 and bears a fixed annual interest rate of 7.85% payable quarterly. In 1988, a term bank credit was established in the European market, amounting to U.S. funds of \$125,000,000, of which U.S.\$100,000,000 was drawn down as of year-end. The credit requires repayment in full on November 10, 1995.

The average annual costs of indebtedness under these lines of term bank credits for 1988, 1987 and 1986 were 8.0%, 7.8% and 9.0% respectively, and the amounts outstanding at December 31, 1988 and 1987, were:

	December 31	
	1988	1987
Bankers' acceptances	\$150,000	\$150,000
Eurodollar advances (1988 - U.S.\$100,000; 1987 - U.S.\$74,750)	123,100	94,923
Deferred foreign exchange (gain) loss	(17,013)	(1,164)
	<u>\$256,087</u>	<u>\$243,759</u>

- (ii) Interest rates on capital lease obligations vary with the Canadian prime rate and averaged 9.3% at December 31, 1988, and 9.7% at December 31, 1987.
- (iii) Cash of \$20,876,000 for 1987 had been segregated for the redemption in full, on January 27, 1988, of Norcen's 13-1/4% Series C and 12-1/2% Series D debentures due December 31, 1990.

8. Convertible Subordinated Debentures

	December 31	
	1988	1987
Adjustable rate convertible subordinated debentures		
Series A (i)	\$149,016	\$149,416
Series B (ii)	<u>150,000</u>	<u>150,000</u>
	<u>\$299,016</u>	<u>\$299,416</u>

- (i) The Adjustable Rate Convertible Subordinated Debentures, Series A, due December 15, 2006, were issued on November 3, 1986. The convertible debentures pay a minimum of 6% per annum and are convertible at the holder's option into Multiple Voting Ordinary Shares on or before the earlier of December 14, 2006, and the last business day prior to redemption, at an initial conversion price of \$15.50 per share. If, subsequent to December 31, 1991, Norcen fixes the interest rate at 7% per annum, the conversion price increases to \$17.25 per share. The convertible debentures are redeemable, without restriction, at the principal amount plus accrued interest, if any, after December 31, 1991, and at any time prior to this date at 106% of the principal amount plus accrued interest if at least 85% of the original principal amount of the convertible debentures have been converted. The convertible debentures are direct unsecured obligations of Norcen, subordinate to other indebtedness of Norcen for borrowed money, but ranking equally with all other subordinated indebtedness.
- (ii) The Adjustable Rate Convertible Subordinated Debentures, Series B, due March 30, 2007, were issued on May 14, 1987. The convertible debentures pay a minimum of 5% per annum and are convertible at the holder's option into Multiple Voting Ordinary Shares on or before the earlier of March 29, 2007, and the last business day prior to redemption, at an initial conversion price of \$25.00 per share. If, subsequent to May 15, 1992, Norcen fixes the interest rate at 6% per annum, the conversion price increases to \$27.75 per share. The convertible debentures are redeemable, without restriction, at the principal amount plus accrued interest, if any, after May 15, 1992, and at any time prior to this date at 105% of the principal amount plus accrued interest if at least 85% of the original principal amount of the convertible debentures have been converted. As with Series A, the Series B convertible debentures are direct unsecured obligations of Norcen, subordinate to other indebtedness of Norcen for borrowed money, but ranking equally with all other subordinated indebtedness.

- (iii) Of the Adjustable Rate Convertible Subordinated Debentures, Series A and Series B, \$60,000,000 of each series are held by Noranda Inc., a major shareholder of the Company.

9. Capital Stock

(a) Authorized

The authorized share capital of the Company consists of an unlimited number of First Preference Shares, issuable in series; an unlimited number of Junior Preference Shares, issuable in series; an unlimited number of Multiple Voting Ordinary Shares; and an unlimited number of Subordinate Voting Ordinary Shares.

(b) Issued

Non-convertible Preference Shares

On February 1, 1988, and February 15, 1988, the Company redeemed the then existing First Preference Shares, Series A and B, respectively. On April 20, 1988, all of the remaining authorized but unissued shares of this class were cancelled. Further, all authorized but unissued Second Preference Shares were redesignated as First Preference Shares, and the outstanding 8.12% Second Preference Shares, Series A, were redesignated as 8.12% First Preference Shares, Series A.

The 8.12% First Preference Shares, Series A, are non-voting and pay a fixed cumulative cash dividend of \$2.03 per share per annum. Each share will be retractable at the option of the holder on March 1, 1992, at the issue price of \$25.00 per share plus all accrued and unpaid dividends, if any. The First Preference Shares, Series A, will be redeemable in whole or in part at the option of the Company on or after March 1, 1992, at a price of \$26.00, such price declining by \$0.25 per annum until March 1, 1996, after which they are redeemable at the issue price of \$25.00 per share.

	Cancelled First Preference				Redesignated First Preference	
	Series A		Series B		Series A	
	Shares	Amount	Shares	Amount	Shares	Amount
December 31, 1985	844	\$21	55,013	\$1,375		
Issued for cash					4,000,000	\$100,000
Redeemed			(3,775)	(94)		
December 31, 1986	844	21	51,238	1,281	4,000,000	100,000
Redeemed			(4,623)	(116)		
December 31, 1987	844	21	46,615	1,165	4,000,000	100,000
Redeemed	(844)	(21)	(46,615)	(1,165)		
December 31, 1988	---	\$ ---	---	\$ ---	4,000,000	\$100,000

Convertible Preference Shares

The Convertible Junior Preference Shares, 1981 Series, which were issued to senior executives pursuant to the terms of the Preference Share Incentive Plan, were non-voting, paid no dividend and each was convertible into approximately 1.66 Voting Ordinary Shares and 1.66 Non-voting Ordinary Shares at the rate of 25% of the issue after each of the first four years.

The 7-3/4% Convertible Junior Preference Shares, 1983 Series, were issued on December 1, 1983. These shares were non-voting and paid a fixed cumulative cash dividend. The Convertible Junior Preference Shares, 1983 Series, were called for redemption by the Company on September 1, 1987, at a price of \$26.00 per share. Each share was convertible prior to the close of business on August 28, 1987, into approximately 1.28 Non-voting Ordinary Shares.

The Convertible Junior Preference Shares, Series B, were issued on February 8, 1984, to senior executives pursuant to the terms of the Preference Share Incentive Plan. The Convertible Junior Preference Shares, Series B, are identical to the Convertible Junior Preference Shares, 1981 Series, in all respects except that each became convertible into approximately 3.19 Subordinate Voting Ordinary Shares. The preference shares are automatically redeemed at \$50.00 per share after eight years or earlier in accordance with certain provisions of the plan.

	1981 Series		1983 Series		Series B	
	Shares	Amount	Shares	Amount	Shares	Amount
December 31, 1985	85,817	\$4,291	5,999,900	\$147,178	113,300	\$ 5,665
Converted	(9,033)	(452)				
Redeemed	(4,818)	(241)			(27,350)	(1,367)
December 31, 1986	71,966	3,598	5,999,900	147,178	85,950	4,298
Converted	(71,966)	(3,598)	(5,931,183)	(145,492)	(69,950)	(3,498)
Redeemed			(68,717)	(1,686)		
December 31, 1987	---	---	---	---	16,000	800
December 31, 1988	---	\$ ---	---	\$ ---	16,000	\$ 800

Ordinary Shares

The two classes of ordinary shares rank equally with each other and after all preference shares of Norcen with respect to priority on the payment of dividends. On April 20, 1988, a class of shares of an unlimited number designated as Multiple Voting Ordinary Shares and a class of shares of an unlimited number designated as Subordinate Voting Ordinary Shares were created. Each issued and outstanding Voting Ordinary Share was changed into one Multiple Voting Ordinary Share carrying five votes, and each issued and outstanding Non-voting Ordinary Share was changed into one Subordinate Voting Ordinary Share carrying one vote. All authorized but unissued Voting Ordinary Shares and Non-voting Ordinary Shares were then cancelled. At the holder's option, Multiple Voting Ordinary Shares are convertible into Subordinate Voting Ordinary Shares, on a one-for-one basis, at any time. Subordinate Voting Ordinary Shares are convertible into Multiple Voting Ordinary Shares, on a one-for-one basis, only in certain limited circumstances.

	Ordinary Shares			
	Multiple Voting		Subordinate Voting	
	Shares	Amount	Shares	Amount
December 31, 1985	27,136,235	\$132,471	21,580,259	\$108,384
Issued for cash				
Employee savings and investment plan			253,451	3,227
Incentive stock option plan	460		460	
Ordinary stock dividends	11,441	162	20,383	262
Exchanged	(835)	(4)	835	4
Conversions	15,000	226	15,000	226
December 31, 1986	27,162,301	132,855	21,870,388	112,103
Issued for cash				
Employee savings and investment plan			208,653	3,983
Incentive stock option plan			10,151	
Executive share purchase plan			985,276	13,800
Ordinary stock dividends	6,806	139	11,164	204
Exchanged	(442)	(2)	442	2
Conversions	157,176	2,383	7,946,427	150,758
December 31, 1987	27,325,841	135,375	31,032,501	280,850

	Ordinary Shares			
	Multiple Voting		Subordinate Voting	
	Shares	Amount	Shares	Amount
Issued for cash				
Employee savings and investment plan			250,840	4,315
Incentive stock option plan			943	
Ordinary stock dividends	745	8	1,082	14
Exchanged	(59)	(1)	59	1
Conversions	25,806	400		
December 31, 1988	<u>27,352,333</u>	<u>\$135,782</u>	<u>31,285,425</u>	<u>\$ 285,180</u>

(c) Dividend Restrictions

Covenants respecting certain of Norcen's non-convertible long-term debt impose a limit on dividend payments by Norcen, such limit being related in part to consolidated net earnings, as defined. Under the most restrictive of these covenants, retained earnings in the amount of \$285.0 million were available for the payment of dividends at December 31, 1988.

10. Income Taxes

The provision for income taxes in the consolidated statement of earnings varies from the amounts that would be computed by applying the Canadian federal statutory rate of 41.5% to earnings before extraordinary item, income taxes, write-down of non-productive assets and minority interests for the following reasons:

	Year ended December 31		
	1988	1987	1986
Earnings before extraordinary item, income taxes, write-down of non-productive assets and minority interests	<u>\$151,576</u>	<u>\$174,867</u>	<u>\$105,191</u>
Canadian federal statutory rate of income tax	<u>41.5%</u>	<u>45.5%</u>	<u>46.0%</u>
Computed income tax expense	\$ 62,904	\$ 79,564	\$ 48,388
Increase (decrease) in income taxes resulting from:			
Alberta Royalty Tax Credit	(4,941)	(5,673)	(4,936)
Provincial income taxes in excess of federal abatement	5,847	6,567	3,158
Non-taxable dividend income	(9,618)	(8,307)	(10,092)
Non-deductible crown payments less federal resource allowance	1,357	(133)	2,503
Non-deductible production revenue taxes	59	201	5,731
Income tax depletion		(3,920)	(865)
Other items, net	<u>3,499</u>	<u>5,617</u>	<u>3,818</u>
Actual income tax expense	<u>\$ 59,107</u>	<u>\$ 73,916</u>	<u>\$ 47,705</u>
Effective tax rate	<u>39.0%</u>	<u>42.3%</u>	<u>45.4%</u>

Deferred income taxes result from timing differences between the recognition of income and expenses for income tax and for financial statement purposes. The source of these differences is principally exploration and development expenditures and capital cost allowances deducted for income tax purposes in excess of depletion and depreciation.

At December 31, 1988, the Company had United States tax loss carryforwards of approximately \$155.1 million (U.S. \$130.0 million), the tax benefits of which are not recognized in the financial statements. These loss carryforwards expire at various dates throughout the period ending December 31, 2003.

11. Write-Down Of Non-Productive Assets

In 1986, Norcen wrote down foreign exploration costs which had no supporting reserve base, in the amount of \$6,905,000 net of income taxes of \$12,565,000.

12. Extraordinary Item

In 1986, Norcen wrote off the carried value and provided for anticipated costs to cease operations of all its mineral resource properties other than its iron ore interests. The total write-off was \$20,130,000 net of deferred tax reductions of \$13,291,000.

13. Pension Plans And Other Benefits

Norcen and its wholly owned subsidiary, Superior Propane Inc., have defined benefit pension plans covering most employees. The benefits provided by these plans are based on the employee's years of service and on the highest average earnings for a specified number of consecutive years. The Company makes annual contributions to the plans based on the results of actuarial valuations. The plan assets consist primarily of equity and fixed income securities. In addition to the defined benefit pension plans, Norcen has a non-contributory executive retirement plan which provides supplemental benefits.

The net pension expense arising from these plans is as follows:

	<u>1988</u>	<u>1987</u>
Service cost - benefits earned during the year	\$ 3,775	\$2,663
Interest cost on projected benefit obligation	4,826	4,402
Expected return on plan assets:		
Actual return	(10,146)	(3,239)
Deferred portion (i)	(4,892) (5,254)	1,849 (5,088)
Amortization of unrecognized amounts (i)	<u>323</u>	<u>(206)</u>
Net pension expense	<u>\$ 3,670</u>	<u>\$1,771</u>

- (i) Deferred amounts are amortized on a straight-line basis over the expected average remaining service life of the relevant employee group.

The funded status of the plans and the liability as recognized in the Balance Sheet at December 31, 1988, and 1987, were:

	<u>1988</u>	<u>1987</u>
Accumulated benefit obligation including vested amounts of \$57,291 in 1988; (\$59,907 in 1987)	\$60,036	\$61,801
Unearned benefit obligation related to projected pay increases	<u>20,694</u>	<u>19,344</u>
Projected benefit obligation	80,730	81,145
Plan assets, at fair value	<u>90,630</u>	<u>82,320</u>
Excess of plan assets over projected benefit obligation	9,900	1,175
Unrecognized prior service cost	1,330	
Unrecognized net loss (gain)	(7,089)	6,753
Unrecognized net transition surplus	<u>(6,383)</u>	<u>(8,080)</u>
Net accrued pension liability	<u>\$ (2,242)</u>	<u>\$ (152)</u>

Projected benefit obligations and the expected return on plan assets are based on an assumed rate of 6.5%. Projected pay increases reflect an assumed rate of 5%.

Under accounting recommendations issued by FASB, projected benefit obligations would be calculated at a 9% rate, resulting in a projected benefit obligation of \$56,277,000 at December 31, 1988, and \$57,755,000 at December 31, 1987.

14. Segmented Information

A. Financial data by geographic segment

The operations of the Propane Marketing and Mineral Resources Divisions, except for the investment in Hanna, are located principally in Canada. The operations of the Oil and Gas Division are geographically segmented as follows:

	<u>Canada</u>	<u>United States</u>	<u>South Pacific (i)</u>	<u>Total</u>
<u>1988</u>				
Sales and other revenues	\$ <u>313,918</u>	\$ <u>27,254</u>	\$ <u>24,580</u>	\$ <u>365,752</u>
Operating income (loss)	\$ <u>98,047</u>	\$ <u>(1,265)</u>	\$ <u>11,791</u>	\$ <u>108,573</u>
Capital expenditures	\$ <u>102,605</u>	\$ <u>55,077</u>	\$ <u>64,232</u>	\$ <u>221,914</u>
Identifiable assets	\$ <u>1,107,421</u>	\$ <u>267,569</u>	\$ <u>94,513</u>	\$ <u>1,469,503</u>
<u>1987</u>				
Sales and other revenues	\$ <u>355,890</u>	\$ <u>20,776</u>	\$ <u>22,758</u>	\$ <u>399,424</u>
Operating income (loss)	\$ <u>159,189</u>	\$ <u>(3,664)</u>	\$ <u>10,592</u>	\$ <u>166,117</u>
Capital expenditures	\$ <u>76,867</u>	\$ <u>31,546</u>	\$ <u>10,421</u>	\$ <u>118,834</u>
Identifiable assets	\$ <u>1,118,773</u>	\$ <u>235,385</u>	\$ <u>42,430</u>	\$ <u>1,396,588</u>

(i) Norcen has operations in Australia, New Zealand and Papua New Guinea.

B. Financial data by business segment

	Year ended December 31		
	1988	1987	1986
Oil and gas			
Sales and other revenues (i)	\$ 365,752	\$ 399,424	\$ 334,209
Operating costs	137,137	125,860	138,345
Depreciation and depletion (ii)	120,042	107,447	112,978
Operating income	<u>\$ 108,573</u>	<u>\$ 166,117</u>	<u>\$ 82,886</u>
Propane marketing			
Sales and other revenues	\$ 314,387	\$ 288,256	\$ 217,435
Operating costs (iii)	249,097	238,578	179,367
Depreciation	16,026	14,561	9,816
Operating income	<u>\$ 49,264</u>	<u>\$ 35,117</u>	<u>\$ 28,252</u>
Mineral resources			
Sales and other revenues	\$ 47,961	\$ 42,144	\$ 53,256
Operating costs	6,614	6,625	10,490
Depreciation and depletion	5,005	5,005	6,372
Operating income	<u>\$ 36,342</u>	<u>\$ 30,514</u>	<u>\$ 36,394</u>
Consolidated total			
Operating income			
Oil and gas	\$ 108,573	\$ 166,117	\$ 82,886
Propane marketing	49,264	35,117	28,252
Mineral resources	36,342	30,514	36,394
	194,179	231,748	147,532
Investment and other revenues	10,070	10,802	18,694
	204,249	242,550	166,226
Interest and other financial expense	52,673	67,683	80,505
Income taxes	59,107	73,916	35,140
Minority interests	725	1,778	613
	112,505	143,377	116,258
Earnings before extraordinary item	91,744	99,173	49,968
Extraordinary item			(20,130)
Net earnings	<u>\$ 91,744</u>	<u>\$ 99,173</u>	<u>\$ 29,838</u>
Capital expenditures			
Oil and gas (iv)	\$ 221,914	\$ 118,834	\$ 155,278
Propane marketing	32,203	25,564	5,778
Mineral resources		(539)	(1,146)
	<u>\$ 254,117</u>	<u>\$ 143,859</u>	<u>\$ 159,910</u>
Identifiable assets			
Oil and gas	\$1,469,503	\$1,396,588	\$1,377,276
Propane marketing	257,120	231,149	214,963
Mineral resources	437,080	442,795	409,316
Corporate	151,424	163,076	154,646
	<u>\$2,315,127</u>	<u>\$2,233,608</u>	<u>\$2,156,201</u>

(i) Includes inter-segment sales of \$6,695,000 in 1988 (\$5,942,000 in 1987; \$8,284,000 in 1986).

(ii) Includes the write-down of non-productive assets of \$19,470,000 in 1986 (Note 11).

(iii) Includes inter-segment purchases of \$6,695,000 in 1988 (\$5,942,000 in 1987; \$8,284,000 in 1986).

(iv) Net of government incentive payments of \$4,012,000 in 1988 (\$6,984,000 in 1987; \$29,687,000 in 1986).

15. United States Accounting Principles

Norcen follows Canadian accounting principles which are different in some respects from those applicable in the United States and from practices prescribed by the United States Securities and Exchange Commission ("SEC"). These differences would have affected net earnings as follows:

	Year ended December 31		
	1988	1987	1986
Net earnings based on Canadian accounting principles	\$ 91,744	\$ 99,173	\$ 29,838
Prior period adjustment regarding the Suncor litigation (i)			17,364
Foreign currency translation adjustment on long-term debt (ii)	7,600	9,547	4,961
Application of SEC prescribed full cost method net of related deferred income taxes (iii)	5,526	(11,508)	(46,551)
Amortization of excess cost of minority shares in 1975 reorganization (iv)	(669)	(671)	(641)
Amortization of surplus funds withdrawn from employee benefit plans (v)	772	771	771
Net earnings based on United States accounting principles	<u>\$ 104,973</u>	<u>\$ 97,312</u>	<u>\$ 5,742</u>
Earnings (loss) per ordinary share			
Canadian	\$ 1.43	\$ 1.60	\$ 0.22
United States	<u>\$ 1.42</u>	<u>\$ 1.35</u>	<u>\$ (0.27)</u>

- (i) Under Canadian accounting principles the outcome of the Suncor litigation involving royalties received or receivable dating back to 1979 was recorded as a prior period adjustment in 1984. As a result of the Court of Appeal decision in February 1986, a portion of the prior period adjustment recorded in 1984 was reversed as a prior period adjustment in 1986. Under United States accounting principles, both adjustments would have been reflected in current earnings.
- (ii) Effective January 1, 1984, Norcen defers and amortizes, over the term of the debt, the gain or loss on the translation of the non-current portion of long-term debt in foreign currencies at the rate of exchange in effect at year end (see Accounting Policies - Foreign currency translation). Under United States accounting principles the entire gain or loss on translation of the long-term debt would be reflected in earnings.
- (iii) Prior to December 31, 1986, Norcen accounted for its exploration and development expenditures under the full cost method on a world-wide basis. Effective December 31, 1986, Norcen adopted the country-by-country basis of full cost accounting. This adjustment reflects the country-by-country full cost method prescribed by the SEC.
- (iv) A corporate reorganization in 1975 was accounted for in the manner of a pooling of interests. Under United States accounting principles, it would have been accorded purchase accounting treatment. Accordingly, the cost of the minority shares over their underlying book value of \$16,900,000 would have been included in properties, plant and equipment.
- (v) Norcen, in 1985, included in earnings, surplus funds withdrawn from its employee pension plans beyond those necessary to meet future pension obligations. This adjustment amortizes the withdrawal over ten years.

The cumulative effect of the application of the above noted United States accounting principles on retained earnings would be as follows:

	December 31		
	<u>1988</u>	<u>1987</u>	<u>1986</u>
Retained earnings based on Canadian accounting principles	\$466,706	\$412,412	\$355,018
Recognition of unrealized exchange gains (losses) on long-term debt	12,496	4,896	(4,651)
Application of SEC full cost method net of related deferred income taxes	(76,373)	(81,899)	(70,391)
Amortization of excess cost of minority shares in 1975 reorganization	(10,180)	(9,511)	(8,840)
Amortization of surplus funds withdrawn from employee benefit plans	(4,629)	(5,401)	(6,172)
Other (i)	<u>(20,920)</u>	<u>(20,920)</u>	<u>(20,920)</u>
Retained earnings based on United States accounting principles	<u>\$367,100</u>	<u>\$299,577</u>	<u>\$244,044</u>

- (i) Cumulative effect of earnings accruing to the minority interests prior to the date of the 1975 reorganization, net of the excess cost of the minority shares, would not have been credited to retained earnings.

Pursuant to United States generally accepted accounting principles, all of the Non-convertible and Convertible Preference Shares totalling \$100,800,000 in 1988, \$101,986,000 in 1987 and \$256,376,000 in 1986 would have been reclassified from shareholders' equity to non-current liabilities. Amounts receivable from officers and directors for the purchase of Convertible Junior Preference Shares, 1981 Series and Series B, totalling \$800,000 in 1988 and 1987, and \$7,895,800 in 1986 would have been reclassified as a deduction from these non-current liabilities. Amounts receivable from officers and directors for the purchase of Subordinate Voting Ordinary Shares of \$11,950,000 in 1988 and \$13,800,000 in 1987 would have been reclassified as a deduction from Subordinate Voting Ordinary Share equity.

SUPPLEMENTAL INFORMATION

(UNAUDITED)

(Tabular amounts are in thousands of Canadian dollars except per share amounts)

Quarterly and other financial data

	Quarter				Year
	First	Second	Third	Fourth	
1988					
Sales and other revenues	\$203,177	\$162,741	\$163,425	\$202,132	\$731,475
Net earnings	\$ 30,760	\$ 19,631	\$ 14,689	\$ 26,664	\$ 91,744
Earnings per ordinary share					
Basic	\$ 0.49	\$ 0.30	\$ 0.22	\$ 0.42	\$ 1.43
Fully diluted	\$ 0.42	\$ 0.27	\$ 0.20	\$ 0.35	\$ 1.24
Dividends paid					
per ordinary share (i)	\$ 0.125	\$ 0.125	\$ 0.125	\$ 0.125	\$ 0.50
Market price per ordinary share (ii)					
Multiple voting					
High	\$ 19 3/4	\$ 21 1/2	\$ 21 1/4	\$ 19 3/8	\$ 21 1/2
Low	\$ 17 1/2	\$ 17 1/2	\$ 18 1/2	\$ 16 5/8	\$ 16 5/8
Subordinate voting					
High	\$ 17 1/4	\$ 18 7/8	\$ 18 3/8	\$ 17 1/4	\$ 18 7/8
Low	\$ 14 5/8	\$ 14 7/8	\$ 16 1/8	\$ 15	\$ 14 5/8
1987					
Sales and other revenues	\$185,769	\$173,203	\$181,896	\$193,816	\$734,684
Net earnings	\$ 27,715	\$ 19,538	\$ 25,385	\$ 26,535	\$ 99,173
Earnings per ordinary share					
Basic	\$ 0.46	\$ 0.29	\$ 0.42	\$ 0.43	\$ 1.60
Fully diluted	\$ 0.40	\$ 0.26	\$ 0.36	\$ 0.36	\$ 1.38
Dividends paid					
per ordinary share (i)	\$ 0.125	\$ 0.125	\$ 0.125	\$ 0.125	\$ 0.50
Market price per ordinary share (ii)					
Multiple voting					
High	\$ 24 1/2	\$ 27 1/4	\$ 28 5/8	\$ 24 7/8	\$ 28 5/8
Low	\$ 16	\$ 22 1/2	\$ 23 7/8	\$ 15 3/4	\$ 15 3/4
Subordinate voting					
High	\$ 21 3/4	\$ 25	\$ 22 1/4	\$ 21 1/2	\$ 25
Low	\$ 15	\$ 19 3/4	\$ 20 1/2	\$ 13 7/8	\$ 13 7/8

(i) Generally United States residents are subject to a 15% withholding tax.

(ii) The market prices are as reported by The Toronto Stock Exchange, which is the principal market of the ordinary shares of Norcen. There is no established public trading market in the United States.

Oil and gas information

The following unaudited supplementary information is disclosed in accordance with the provisions of the FASB Statement No. 69 "Disclosures about Oil and Gas Producing Activities".

Exploration and production activities

Norcen has capitalized property acquisition, exploration and development costs pertaining to its Canadian and foreign oil and gas operations as follows:

		December 31	
		1988	1987
Properties			
Canada	- proven	\$1,271,601	\$1,213,949
	- unproven	100,215	75,239
Foreign (i)	- proven	325,740	286,936
	- unproven	70,764	9,051
Production equipment		357,439	320,210
		<u>2,125,759</u>	<u>1,905,385</u>
Accumulated depreciation, depletion and amortization		772,670	654,065
Capitalized costs		<u>\$1,353,089</u>	<u>\$1,251,320</u>

- (i) Principal areas of spending have been in Australia and the United States.

The following table presents information on Norcen's oil and gas property acquisition, exploration and development activities:

		Canada	Foreign	Total
Costs capitalized in the year				
1988	Property acquisition	\$ 21,259	\$ 10,171	\$ 31,430
	Exploration (i) - proven	25,553	20,713	46,266
	- unproven	24,976	61,713	86,689
	Development (i)	29,456	26,533	55,989
	Total capitalized	<u>\$101,244</u>	<u>\$119,130</u>	<u>\$220,374</u>
1987	Property acquisition	\$ 12,682	\$ 6,116	\$ 18,798
	Exploration (i) - proven	69,964	12,711	82,675
	- unproven	(40,631)	4,949	(35,682)
	Development (i)	30,419	18,590	49,009
	Total capitalized	<u>\$ 72,434</u>	<u>\$ 42,366</u>	<u>\$114,800</u>
1986	Property acquisition	\$ 3,168	\$ 29,222	\$ 32,390
	Exploration (i) - proven	29,670	50,757	80,427
	- unproven	16,474	(23,623)	(7,149)
	Development (i)	218,048	11,309	229,357
	Sale of oil and gas properties		(8,923)	(8,923)
	Write-down of non-productive assets		(30,428)	(30,428)
	Total capitalized	<u>\$267,360</u>	<u>\$ 28,314</u>	<u>\$295,674</u>

- (i) Exploration and development costs in Canada are shown net of government incentive payments earned of \$4,012,000 in 1988 (\$6,984,000 in 1987; \$29,687,000 in 1986).

		<u>Canada</u>	<u>Foreign</u>	<u>Total</u>
Net revenues from oil and gas production:				
1988	Gross revenue	\$313,900	\$ 60,596	\$374,496
	Production expenses (i)	130,043	14,845	144,888
	Depreciation, depletion and amortization expense (ii)	<u>86,181</u>	<u>32,424</u>	<u>118,605</u>
		97,676	13,327	111,003
	Income tax expense	<u>44,232</u>	—	<u>44,232</u>
	Results of operations from producing activities (excluding corporate overhead and interest costs)	<u>\$ 53,444</u>	<u>\$ 13,327</u>	<u>\$ 66,771</u>
1987	Gross revenue	\$369,869	\$ 49,258	\$419,127
	Production expenses (i)	142,069	12,759	154,828
	Depreciation, depletion and amortization expense (ii)	<u>74,407</u>	<u>27,306</u>	<u>101,713</u>
		153,393	9,193	162,586
	Income tax expense	<u>67,522</u>	—	<u>67,522</u>
	Results of operations from producing activities (excluding corporate overhead and interest costs)	<u>\$ 85,871</u>	<u>\$ 9,193</u>	<u>\$ 95,064</u>
1986	Gross revenue	\$317,526	\$ 27,607	\$345,133
	Production expenses (i)	145,166	9,435	154,601
	Depreciation, depletion and amortization expense (ii)	<u>72,985</u>	<u>18,709</u>	<u>91,694</u>
		99,375	(537)	98,838
	Income tax expense	<u>30,715</u>	—	<u>30,715</u>
	Results of operations from producing activities (excluding corporate overhead and interest costs)	<u>\$ 68,660</u>	<u>\$ (537)</u>	<u>\$ 68,123</u>

(i) Production expenses include oil and gas operating expenses, production revenue taxes as well as freehold and crown royalty payments of \$70,683,000 in 1988 (\$81,805,000 in 1987; \$75,940,000 in 1986).

(ii) Depletion expense per equivalent barrel was \$3.78, \$3.81, \$3.30 in 1988, 1987 and 1986, respectively.

The reserve information provided below is on a proved reserve basis only after deducting royalty interests of governments and others. With the exception of certain Australian reserves, virtually all of Norcen's proved reserves are developed. The reserve quantity information summarizes the changes in quantities of net proved oil and gas reserves determined using constant prices and costs. The reserve information for 1986 was determined by independent reservoir engineers, McDaniel & Associates Consultants Ltd. and did not include Australia and the United States.

	Year ended December 31					
	1988		1987(i)		1986	
	Liquids (000s bbls)	Gas (mmcf)	Liquids (000s bbls)	Gas (mmcf)	Liquids (000s bbls)	Gas (mmcf)
Beginning of year	94,503	833,925	74,740	683,928	66,304	621,144
Revisions of previous estimates	3,293	13,737	21,643	129,536	9,870	25,816
Purchase of reserves in place	1,025	6,353			7,579	62,446
Extensions, discoveries and other additions	15,901	39,182	9,030	63,356	1,865	7,504
Production	(11,661)	(51,329)	(10,910)	(42,895)	(10,878)	(32,982)
End of year	<u>103,061</u>	<u>841,868</u>	<u>94,503</u>	<u>833,925</u>	<u>74,740</u>	<u>683,928</u>

- (i) Included in 1987 are revisions arising from the use of reserve estimates determined by Company engineers, which historically differ, primarily due to timing differences, from estimates determined by McDaniels & Associates Consultants Ltd. In addition, 1987 reserves have been restated to include the United States and Australian reserves, previously shown in total only.

Oil and gas liquids at the end of each year include 12.9, 14.0 and 14.2 million barrels in 1988, 1987 and 1986, respectively, as Norcen's oil sands royalty interest.

**Standardized measure of discounted
future net cash flows and changes therein
relating to proved oil and gas reserves**

In calculating the standardized measure of discounted future net cash flows, prices and costs in effect at December 31, 1988, were assumed to be constant, were applied to proved reserves and provision was made for estimated future development expenditures that will be required to produce the Company's reserves. Royalty deductions were based on laws, regulations and contracts existing at the end of the fiscal year. The discounted future net cash flows were derived by applying a 10% discount factor, as required by the FASB Statement No. 69 rules, to the future net cash flows. The reserve information for 1986 was determined by independent reservoir engineers, McDaniel & Associates Consultants Ltd. and did not include Australia and the United States.

MANAGEMENT BELIEVES THAT THIS INFORMATION DOES NOT SUFFICIENTLY REFLECT THE CURRENT ECONOMIC VALUE OF THE OIL AND GAS PRODUCING PROPERTIES OR THE PRESENT VALUE OF ESTIMATED FUTURE CASH FLOWS SINCE NO ECONOMIC VALUE IS ATTRIBUTED TO POTENTIAL RESERVES, THE USE OF A 10% DISCOUNT RATE IS ARBITRARY AND PRICES CONSTANTLY CHANGE FROM YEAR-END LEVELS.

	Year ended December 31		
	<u>1988</u>	<u>1987</u> (millions of dollars)	<u>1986</u>
Future cash inflows	\$3,996	\$4,252	\$3,623
Future production costs	1,537	1,586	1,569
Future development costs	34	36	67
Future income tax expense	<u>779</u>	<u>873</u>	<u>766</u>
Future net cash flows	<u>\$1,646</u>	<u>\$1,757</u>	<u>\$1,221</u>
Standardized measure of discounted future net cash flows	<u>\$ 997</u>	<u>\$ 996</u>	<u>\$ 673</u>

The following table sets out principal sources of change in the standardized measure of discounted future net cash flows during the respective years:

	Year ended December 31		
	<u>1988</u>	<u>1987 (i)</u> (millions of dollars)	<u>1986</u>
Sales of oil and gas and value of transfers	\$(230)	\$(264)	\$(170)
Net changes in prices and production costs	(178)	24	(656)
Extensions, discoveries and improved recovery, less related costs	182	124	21
Purchase of reserves in place	9		105
Development costs incurred during the period	3	10	12
Revisions of previous quantity estimates and other	2	369	116
Accretion of discount	150	110	89
Net changes in income taxes	<u>63</u>	<u>(50)</u>	<u>262</u>
Net increase (decrease)	1	323	(221)
Beginning of year	<u>996</u>	<u>673</u>	<u>894</u>
End of year	<u>\$997</u>	<u>\$996</u>	<u>\$673</u>

- (i) Figures for 1987 have been restated to include in detail the United States and Australia which had previously been shown in total only.

NORCEN ENERGY RESOURCES LIMITED

INVESTMENTS
YEAR ENDED DECEMBER 31, 1988

<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>
Name of issuer and title of each issue	Number of shares	Cost of each issue (000's)	Market value of each issue at balance sheet date (000's)	Amount at which each portfolio of equity security issues and each other security issue carried in the balance sheet (000's)
M. A. Hanna Company ⁽¹⁾				
- common shares	6,038,500 ⁽¹⁾	\$175,204	\$138,327 ⁽²⁾	\$175,204
- preference shares	1,126,157	37,590	41,209 ⁽²⁾	37,590
Iron Ore Company of Canada				
- common shares	1,072,784	53,310	53,310 ⁽³⁾	53,310
Brascan Limited				
- preference shares	2,600,000	65,000	65,000 ⁽³⁾	65,000
ICG Utilities (Ontario) Ltd.				
- preference shares	92,000	2,300	2,300 ⁽³⁾	2,300
Inter-City Gas Corporation				
- preference shares	98,570	68,999	68,999 ⁽³⁾	68,999
Other investments		20,193		<u>20,193</u>
				<u>\$422,596</u>

Notes:

- (1) On October 17, 1988, M.A. Hanna Company split its common stock on the basis of three shares for every two shares held.
 (2) Based on the December 31, 1988, closing price of a board lot on the New York Stock Exchange.
 (3) No market - stated at cost.

NORCEN ENERGY RESOURCES LIMITED

INVESTMENTS
YEAR ENDED DECEMBER 31, 1987

<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>
Name of issuer and title of each issue	Number of Shares	Cost of each issue (000's)	Market value of each issue at balance sheet date (000's)	Amount at which each portfolio of equity security issues and each other security issue carried in the balance sheet (000's)
M. A. Hanna Company				
- common shares	4,025,667	\$175,204	\$100,742 ⁽¹⁾	\$175,204
- preference shares	1,126,157	37,590	37,332 ⁽¹⁾	37,590
Iron Ore Company of Canada				
- common shares	1,072,784	53,310	53,310 ⁽²⁾	53,310
Brascan Limited				
- preference shares	2,600,000	65,000	65,000 ⁽²⁾	65,000
ICG Utilities (Ontario) Ltd.				
- preference shares	138,000	3,450	3,450 ⁽²⁾	3,450
Inter-City Gas Corporation				
- preference shares	110,000	77,000	77,000 ⁽²⁾	77,000
Other investments		25,036		<u>25,036</u>
				<u>\$436,590</u>

Notes:

- (1) Based on the December 31, 1987, closing price of a board lot on the New York Stock Exchange.
 (2) No market - stated at cost.

NORCEN ENERGY RESOURCES LIMITED

Amounts receivable from related parties and underwriters, promoters and employees other than related parties:

Year ended December 31, 1988

<u>Name of Debtor</u>	<u>Balance at beginning of year</u>	<u>Additions</u>	<u>Deductions</u>		<u>Balance at end of year</u>	
			<u>Amounts Collected</u>	<u>Amounts written off</u>	<u>Current</u>	<u>Not Current</u>
Donald D. Barkwell ⁽¹⁾	\$1,850,000		\$1,850,000			
Edward G. Battle	2,540,500		18,000		\$20,000	\$2,502,500
Conrad M. Black	800,000					800,000
Barry D. Cochrane	1,500,000					1,500,000
Donald J. Edwards	800,000					800,000
Tom P. Hanrahan	750,000					750,000
William T. Kilbourne	1,000,000					1,000,000
Wayne M. Newhouse	1,153,262		3,262			1,150,000
Paul H. Palmer	1,350,000					1,350,000
Gordon B. Singer	923,613		10,173		7,840	905,600
Kenneth A. Stephens	1,000,000					1,000,000
Arthur L. Wood	1,000,000					1,000,000

Of the amounts above, \$12,750,000 are outstanding pursuant to the Executive Share Purchase Plan, due December 23, 1992, and the Preference Share Incentive Plan, due December 13, 1991. The balance of the loans, which mature at various dates through 1991, are non-interest bearing and are for the purchase of houses.

Note:

(1) Resigned on May 31, 1988.

NORCEN ENERGY RESOURCES LIMITED

Amounts receivable from related parties and underwriters, promoters and employees other than related parties:

Year ended December 31, 1987

Name of Debtor	Balance at beginning of year	Additions	Deductions		Balance at end of year	
			Amounts Collected	Amounts written off	Current	Not Current
Donald D. Barkwell	\$1,102,250	\$1,850,000	\$1,102,250			\$ 1,850,000
Edward G. Battle	1,668,600	2,500,000	1,628,100		\$ 18,000	2,522,500
Conrad M. Black	800,000					800,000
Barry D. Cochran	696,350	1,500,000	696,350			1,500,000
Donald J. Edwards		800,000				800,000
Tom P. Hanrahan		750,000				750,000
William C. Hennenfent ⁽¹⁾	468,600		468,600			
William T. Kilbourne	551,100	1,000,000	551,100			1,000,000
Wilfrid A. Loucks	551,100		551,100			
Wayne M. Newhouse	306,851	1,150,000	303,589		3,262	1,150,000
Paul H. Palmer	636,100	1,350,000	636,100			1,350,000
Timothy G. Sheeres ⁽¹⁾	426,100		426,100			
Gordon B. Singer	232,871	900,000	209,258		9,321	914,292
Kenneth A. Stephens		1,000,000				1,000,000
Arthur L. Wood	551,100	1,000,000	551,100			1,000,000

Additions during the year represent amounts outstanding pursuant to the Executive Share Purchase Plan and are due December 23, 1992. Loans which mature at various dates through 1991 are non-interest bearing and are for the purchase of shares and houses.

Note:

(1) Messrs. Hennenfent and Sheeres resigned during 1986.

NORCEN ENERGY RESOURCES LIMITED

Amounts receivable from related parties and underwriters, promoters and employees other than related parties:

Year ended December 31, 1986

Name of Debtor	Balance at beginning of year	Additions	Deductions		Balance at end of year	
			Amounts Collected	Amounts written off	Current	Not Current
Donald D. Barkwell	\$1,102,250					\$1,102,250
Edward G. Battle	1,680,600		\$ 12,000		\$ 15,000	1,653,600
Conrad M. Black	800,000					800,000
Barry D. Cochrane	696,350					696,350
Kenneth L. Colby ⁽¹⁾	259,700		201,200		58,500	
William C. Hennenfent ⁽²⁾	677,193		208,593		468,600	
William T. Kilbourne	551,100					551,100
Wilfrid A. Loucks	551,100					551,100
Wayne M. Newhouse	309,787		2,936		2,936	303,915
Paul H. Palmer	636,100					636,100
C. Bruce Ross ⁽³⁾	250,000		250,000			
Timothy G. Sheeres ⁽²⁾	551,100		125,000		426,100	
Gordon B. Singer	240,459		7,588		8,563	224,308
Arthur L. Wood	551,100					551,100

Loans which mature at various dates through 1991 are non-interest bearing and are for the purchase of shares and houses.

Notes:

- (1) Resigned on August 31, 1986. Pursuant to a resignation agreement, a housing loan was repayable to the Company on January 2, 1987.
- (2) Retired on September 30, 1986. Pursuant to their retirement agreements Messrs. Hennenfent and Sheeres may choose to convert preference shares, for which their remaining loans are outstanding, into Voting or Non-voting Ordinary Shares of the Company up to September 30, 1987, at which time the full amount of any loans remaining will be due and payable.
- (3) Retired on July 31, 1985.

NORCEN ENERGY RESOURCES LIMITED

PROPERTIES, PLANT AND EQUIPMENT
YEAR ENDED DECEMBER 31, 1988

<u>Column A</u> <u>Classification</u>	<u>Column B</u> Balance at December 31, 1987	<u>Column C</u> Additions at cost	<u>Column D</u> Retirements or sales	<u>Column E</u> Other changes		<u>Column F</u> Balance at December 31, 1988
				<u>Add</u>	<u>Deduct</u>	
Oil and gas						
Properties	\$1,585,174,508	\$184,902,243	\$1,756,155			\$1,768,320,596
Production equipment	320,210,221	37,532,874	304,185			357,438,910
Pipelines and processing plants	43,779,977	1,458,133	36,895			45,201,215
Propane marketing						
Equipment	204,881,810	36,652,998	6,992,871	\$4,031,475		238,573,412
Mineral resources						
Properties	189,982,858					189,982,858
Equipment	163,000					163,000
	<u>\$2,344,192,374</u>	<u>\$260,546,248</u>	<u>\$9,090,106</u>	<u>\$4,031,475</u>		<u>\$2,599,679,991</u>

NORCEN ENERGY RESOURCES LIMITED

PROPERTIES, PLANT AND EQUIPMENT
YEAR ENDED DECEMBER 31, 1987

<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>		<u>Column F</u>
<u>Classification</u>	<u>Balance at December 31, 1986</u>	<u>Additions at cost</u>	<u>Retirements or sales</u>	<u>Add</u>	<u>Deduct</u>	<u>Balance at December 31, 1987</u>
Oil and gas						
Properties	\$1,484,702,154	\$100,816,425	\$ 2,548,042	\$ 2,203,971 ⁽¹⁾		\$1,585,174,508
Production equipment	322,574,255	13,777,290	15,978,324		\$163,000 ⁽²⁾	320,210,221
Pipelines and processing plants	42,832,016	947,961				43,779,977
Propane marketing						
Equipment	171,458,331	29,719,155	8,747,715	12,452,039 ⁽³⁾		204,881,810
Mineral resources						
Properties	190,715,136		805,200	72,922 ⁽²⁾		189,982,858
Equipment	5,557,297		5,484,375	163,000 ⁽²⁾	72,922 ⁽²⁾	163,000
	<u>\$2,217,839,189</u>	<u>\$145,260,831</u>	<u>\$33,563,656</u>	<u>\$14,891,932</u>	<u>\$235,922</u>	<u>\$2,344,192,374</u>

Notes:

- (1) Reclassification of investment in Canadian frontier exploration.
- (2) Reclassification of properties, plant and equipment.
- (3) Recognition of equipment under capital leases.

NORCEN ENERGY RESOURCES LIMITED
PROPERTIES, PLANT AND EQUIPMENT
YEAR ENDED DECEMBER 31, 1986

<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>		<u>Column F</u>
<u>Classification</u>	<u>Balance at December 31, 1985</u>	<u>Additions at cost</u>	<u>Retirements or sales</u>	<u>Add</u>	<u>Deduct</u>	<u>Balance at December 31, 1986</u>
Oil and gas						
Properties	\$1,244,342,932	\$281,448,583	\$10,591,020		\$30,498,341 ⁽¹⁾	\$1,484,702,154
Production equipment	268,303,893	56,172,152	1,460,034	\$ 409,440 ⁽²⁾	851,196 ^(1,2)	322,574,255
Pipelines and processing plants	41,960,235	392,031		479,750 ⁽²⁾		42,832,016
Propane marketing						
Equipment	44,402,159	130,505,351	4,389,424	1,038,148 ⁽³⁾	97,903 ⁽⁴⁾	171,458,331
Mineral resources						
Properties	227,645,135	61,894		787,860 ⁽²⁾	37,779,753 ^(2,5)	190,715,136
Equipment	5,742,937				185,640 ⁽²⁾	5,557,297
	<u>\$1,832,397,291</u>	<u>\$468,580,011</u>	<u>\$16,440,478</u>	<u>\$2,715,198</u>	<u>\$69,412,833</u>	<u>\$2,217,839,189</u>

Notes:

- (1) Write-down of non-productive assets.
- (2) Reclassification of properties and equipment.
- (3) Reclassification of accumulated goodwill amortization.
- (4) Write-down of propane marketing assets.
- (5) Write-down of mineral resource assets.

NORCEN ENERGY RESOURCES LIMITED
ACCUMULATED DEPRECIATION AND DEPLETION OF
PROPERTIES, PLANT AND EQUIPMENT
YEAR ENDED DECEMBER 31, 1988

<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>	<u>Column F</u>
<u>Classification</u>	<u>Balance at December 31, 1987</u>	<u>Additions Charged to Costs and Expenses</u>	<u>Retirements or sales</u>	<u>Other changes Add Deduct</u>	<u>Balance at December 31, 1988</u>
Oil and gas					
Properties	\$507,248,112	\$101,657,806			\$608,905,918
Production equipment	146,817,054	16,947,474			163,764,528
Pipelines and processing plants	32,459,950	1,348,584			33,808,534
Propane marketing					
Equipment	33,238,024	15,996,150	\$2,542,672	\$1,044,654	47,736,156
Mineral resources					
Properties	20,877,180	4,718,220			25,595,400
Equipment	64,601	36,899			101,500
	<u>\$740,704,921</u>	<u>\$140,705,133</u>	<u>\$2,542,672</u>	<u>\$1,044,654</u>	<u>\$879,912,036</u>

NORCEN ENERGY RESOURCES LIMITED
ACCUMULATED DEPRECIATION AND DEPLETION OF
PROPERTIES, PLANT AND EQUIPMENT
YEAR ENDED DECEMBER 31, 1987

<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>	<u>Column F</u>
<u>Classification</u>	<u>Balance at December 31, 1986</u>	<u>Additions Charged to Costs and Expenses</u>	<u>Retirements or sales</u>	<u>Other changes Add Deduct</u>	<u>Balance at December 31, 1987</u>
Oil and gas					
Properties	\$415,750,620	\$ 91,497,492			\$507,248,112
Production equipment	136,600,687	14,575,106	\$4,358,739		146,817,054
Pipelines and processing plants	31,168,186	1,291,764			32,459,950
Propane marketing					
Equipment	21,901,720	14,560,676	4,592,676	\$1,368,304 ⁽¹⁾	33,238,024
Mineral resources					
Properties	16,435,952	4,718,220	276,992		20,877,180
Equipment	5,501,212	36,900	5,473,511		64,601
	<u>\$627,358,377</u>	<u>\$126,680,158</u>	<u>\$14,701,918</u>	<u>\$1,368,304</u>	<u>\$740,704,921</u>

Note:

(1) Recognition of accumulated depreciation on equipment under capital leases.

NORCEN ENERGY RESOURCES LIMITED

ACCUMULATED DEPRECIATION AND DEPLETION OF
PROPERTIES, PLANT AND EQUIPMENT
YEAR ENDED DECEMBER 31, 1986

<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>	<u>Column F</u>
<u>Classification</u>	<u>Balance at December 31, 1985</u>	<u>Additions Charged to Costs and Expenses</u>	<u>Retirements or sales</u>	<u>Other changes Add Deduct</u>	<u>Balance at December 31, 1986</u>
Oil and gas					
Properties	\$354,713,874	\$71,989,809	\$ 401,507	\$10,551,556 ⁽¹⁾	\$415,750,620
Production equipment	117,224,935	21,308,790	1,865,221	67,817 ⁽¹⁾	136,600,687
Pipelines and processing plants	29,859,646	1,308,540			31,168,186
Propane marketing					
Equipment	13,375,325	9,816,345	2,328,098	\$1,038,148 ⁽²⁾	21,901,720
Mineral resources					
Properties	14,090,472	6,081,192		3,735,712 ⁽³⁾	16,435,952
Equipment	5,493,872	28,700	21,360		5,501,212
	<u>\$534,758,124</u>	<u>\$110,533,376</u>	<u>\$4,616,186</u>	<u>\$1,038,148</u>	<u>\$627,358,377</u>

Notes:

- (1) Write-down of non-productive assets.
- (2) Reclassification of accumulated goodwill amortization.
- (3) Write-down of mineral resource assets.

SCHEDULE IX

NORCEN ENERGY RESOURCES LIMITED

SHORT-TERM BORROWINGS
YEARS ENDED DECEMBER 31, 1988, 1987, 1986
(Thousands of dollars)

Category of aggregate short-term borrowings	Balance at year-end	Weighted average interest rate at year-end	Maximum amount outstanding at any month-end	Average amount during the year	Weighted average interest rate during the year(1)
Year ended December 31, 1988					
Commercial paper	\$29,700	10.9%			
Bank loans - unsecured	<u>\$29,700</u>		<u>\$ 69,342</u>	<u>\$ 37,562</u>	<u>9.9%</u>
Year ended December 31, 1987					
Commercial paper	\$52,000	9.0%			
Bank loans - unsecured	<u>3,382</u> <u>\$55,382</u>	9.8%	<u>\$213,303</u>	<u>\$100,754</u>	<u>8.7%</u>
Year ended December 31, 1986					
Commercial paper	\$ 55,444	8.7%			
Bankers' acceptances	129,000	8.8%			
Bank loans - unsecured	<u>8,268</u> <u>\$192,712</u>	9.8%	<u>\$194,861</u>	<u>\$168,665</u>	<u>9.5%</u>

Note:

(1) The weighted average interest rate is calculated by dividing the related interest expense by the average monthly balance outstanding for the year.

NORCEN ENERGY RESOURCES LIMITED

EXHIBIT INDEX

Exhibit Number	Particulars	Page
	ARTICLES OF INCORPORATION AND BY-LAWS	
3-1	Articles of Amalgamation dated January 1, 1988.	80
3-2	Articles of Amendment dated April 20, 1988.	82
3-3	Restated Articles of Incorporation dated June 30, 1988.	88
3-4	BY-LAW NO. 1	
	As amended by By-Laws 1A, 1B and 1C filed with the Form 10-K for the year ended December 31, 1982, at page 88 are incorporated herein by reference.	
3-5	By-law 1D amending By-law 1, dated June 14, 1988.	156
	INSTRUMENTS DEFINING RIGHTS OF SECURITYHOLDERS, INCLUDING DEBENTURES	
4-1	Trust Indenture dated as of August 15, 1983, providing for the issue of debentures filed with the Form 10-K for the year ended December 31, 1983, at page 343 is incorporated herein by reference.	
4-2	First Supplemental Indenture dated as of December 20, 1983, to Trust Indenture dated as of August 15, 1983, filed with the Form 10-K for the year ended December 31, 1983, at page 244 is incorporated herein by reference.	
4-3	Trust Indenture dated November 3, 1986, between Norcen and The Royal Trust Company providing for the issue of adjustable rate convertible subordinated debentures, Series A, filed with Form 10-K for the year ended December 31, 1986, at page 30 is incorporated herein by reference.	
4-4	Trust Indenture dated May 14, 1987, between Norcen and The Royal Trust Company providing for the issue of adjustable rate convertible subordinated debentures, Series B, filed with Form 10-K for the year ended December 31, 1987, at page 242, is incorporated herein by reference.	
	Norcen hereby agrees to furnish copies of instruments defining the rights of holders of long-term debt of Norcen and its subsidiaries to the Commission upon request.	

Exhibit Number	Particulars	Page
MATERIAL CONTRACTS		
10-1	The 1981 Norcen Preference Share Incentive Plan, as amended, filed with the Form 10-K for the year ended December 31, 1983, at page 275 is incorporated herein by reference.	
10-2	The Performance Bonus Plan filed with the Form 10-K for the year ended December 31, 1982, at page 198 is incorporated herein by reference.	
10-3	Standstill Agreement between Norcen, Hanna, C.M. Black and G.M. Black and Stock Purchase Agreement between Norcen and Hanna, both dated July 7, 1982, identified as Exhibits 5 and 6 to Amendment No. 3, Schedule 13-D dated July 15, 1982, are incorporated herein by reference; Amendment No. 2 dated June 1, 1984, between Hanna, C.M. Black and G.M. Black and Amendment No. 1 dated July 30, 1982, between the same parties, both filed with Form 10-K for the year ended December 1, 1984, at pages 136 and 351, respectively, are herein incorporated by reference.	
10-4	Retiring Allowance Agreements dated January 1, 1980, January 1, 1984, and January 1, 1980, between Norcen and E. G. Battle and B.D. Cochrane, respectively, filed with Form 10-K for the year ended December 31, 1984, at page 323 and filed with Form 10-K for the year ended December 31, 1985, at page 318, respectively, are incorporated herein by reference.	
10-5	Stock Purchase Agreement between Norcen and Hanna, dated September 26, 1986, identified as Exhibit 31 to Amendment No. 8, Schedule 13-D dated November 3, 1986, is incorporated herein by reference.	
10-6	Amendment No. 3 to the Standstill Agreement dated September 26, 1986 [Exhibit 10-5 above] between Norcen and Hanna, C.M. Black and G.M. Black, identified as Exhibit 32 to Amendment No. 8, Schedule 13-D dated November 3, 1986 is incorporated herein by reference.	
10-7	Stock Purchase Agreement between Norcen and Hanna, dated October 14, 1987, identified as Exhibit 31 to Amendment No. 9, Schedule 13-D dated October 28, 1987, is incorporated herein by reference.	
10-8	Stock Purchase Agreement between Norcen and Hanna, dated November 6, 1987, identified as Exhibit 34 to Amendment No. 10, Schedule 13-D dated November 12, 1987, is incorporated herein by reference.	

Exhibit Number	Particulars	Page
10-9	Amendment No. 4 to the Standstill Agreement dated November 6, 1986 [Exhibit 10-3 above] between Norcen and Hanna, C.M. Black and G.M. Black, identified as Exhibit 35 to Amendment No. 10, Schedule 13-D dated November 12, 1987, is incorporated herein by reference.	
10-10	Retirement Allowance Agreement dated January 1, 1980, between Norcen and Paul H. Palmer filed with the Form 10-K for the year ended December 31, 1987, at page 276, is herein incorporated by reference.	
10-11	The Executive Share Purchase Plan, as amended and restated, dated August 12, 1987 filed with the Form 10-K for the year ended December 31, 1987, at page 286, is herein incorporated by reference.	
10-12	Retiring Allowance Amending Agreements, all dated December 23, 1987, between Norcen and E.G. Battle, B.D. Cochrane and P.H. Palmer, respectively, filed with the Form 10-K for the year ended December 31, 1987, commencing at page 310, are herein incorporated by reference.	
10-13	Retiring Allowance Agreement dated January 1, 1980, between Norcen and William T. Kilbourne.	158
10-14	Retiring Allowance Amending Agreement dated December 23, 1987, between Norcen and William T. Kilbourne.	168
11	CALCULATION OF EARNINGS PER ORDINARY SHARE	74
22	SIGNIFICANT SUBSIDIARIES OF THE REGISTRANT	75
	PUBLISHED REPORT REGARDING MATTERS SUBMITTED TO VOTE OF SECURITY HOLDERS	
23	Proxy Circular and Statement for the 1989 Annual Meeting.	
24	CONSENT AND REPORT OF INDEPENDENT ACCOUNTANTS	76
	POWER OF ATTORNEY	
25	Power of Attorney dated February 14, 1989.	●

NORCEN ENERGY RESOURCES LIMITED

CALCULATION OF EARNINGS PER ORDINARY SHARE (Tabular amounts in thousands)

	Year ended December 31					
	<u>1988</u>	<u>1987</u>	<u>1986</u>			
SHARES						
Weighted average number of shares outstanding (A)	58,495	52,171	48,877			
Add weighted average number of shares reserved for conversion of preferred shares		5,070	380			
Add weighted average number of shares reserved for conversion of convertible debentures (i)	15,626	13,454	1,538			
Add weighted average number of shares reserved for conversion of preference shares	<u>51</u>	<u>51</u>	<u>—</u>			
Adjusted shares (B)	<u>74,172</u>	<u>70,746</u>	<u>50,795</u>			
EARNINGS						
	Before			Including		
	Extraordinary Item			Extraordinary Item		
	<u>1988</u>	<u>1987</u>	<u>1986</u>	<u>1988</u>	<u>1987</u>	<u>1986</u>
Earnings applicable to ordinary shares (C)	\$ 83,607	\$ 83,227	\$ 31,087	\$ 83,607	\$ 83,227	\$ 10,957
Add dividends on convertible preference shares		7,652			7,652	
Add after-tax interest on convertible debentures(i)	<u>8,651</u>	<u>6,731</u>	<u>732</u>	<u>8,651</u>	<u>6,731</u>	<u>—</u>
Adjusted earnings (D)	<u>\$ 92,258</u>	<u>\$ 97,610</u>	<u>\$ 31,819</u>	<u>\$ 92,258</u>	<u>\$ 97,610</u>	<u>\$ 10,957</u>
Basic earnings per share (C/A)	<u>\$ 1.43</u>	<u>\$ 1.60</u>	<u>\$ 0.64</u>	<u>\$ 1.43</u>	<u>\$ 1.60</u>	<u>\$ 0.22</u>
Fully diluted earnings per share (D/B)	<u>\$ 1.24</u>	<u>\$ 1.38</u>	<u>\$ 0.63</u>	<u>\$ 1.24</u>	<u>\$ 1.38</u>	<u>\$ 0.22</u>

(i) Convertible debentures are not dilutive in the calculation of 1986 fully diluted earnings per share including extraordinary item.

NORCEN ENERGY RESOURCES LIMITED

SUBSIDIARIES OF THE REGISTRANT DECEMBER 31, 1988

<u>Company</u>	<u>Jurisdiction</u>	<u>Percentage of Voting Stock Owned by Immediate Parent</u>
Labrador Mining and Exploration Company Limited	Newfoundland	100%
Norcen Explorer, Inc.	Delaware	100%
Norcen International Ltd.	Alberta	100%
Prairie Oil Royalties Company, Ltd.	Saskatchewan	74%
Superior Propane Inc.	Canada	100%

Other subsidiaries which are not considered to be principal subsidiaries and are not listed above, total 17 companies; of which 11 companies are operating in Canada, 1 in the United Kingdom, 1 in Australia, 1 in New Zealand and the remaining 3 companies are located in the United States.

CONSENT AND REPORT OF INDEPENDENT ACCOUNTANTS

To Norcen Energy Resources Limited

The examination referred to in our report dated February 3, 1989 (February 14, 1989 as to Note 3), also included the related consolidated financial statement schedules for the three years ended December 31, 1988, listed in response to Item 14 of the Form 10-K. In our opinion these consolidated financial statement schedules present fairly the information required to be set forth therein.

We also consent to the incorporation by reference in the Registration Statement (Commission File Number 2-73684) on Form S-8 of Norcen Energy Resources Limited and subsidiaries of our report dated February 3, 1989 (February 14, 1989 as to Note 3).

Calgary, Canada
February 14, 1989

"Thorne Ernst & Whinney"
Chartered Accountants

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