

# Norcen



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## Annual Report 1986

It is clear that Norcen has withstood declining prices and remains financially and operationally strong.



**N**orcen is in a solid position to capitalize on emerging opportunities and to maintain its focus on profitable operations.

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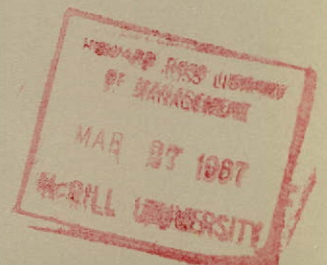
A Norcen employee monitors the operation of field facilities at Jarvie in northern Alberta.

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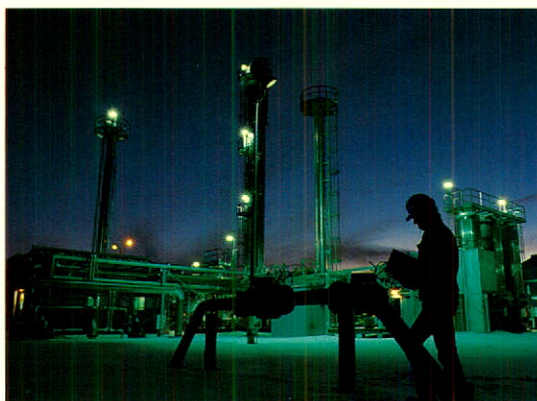
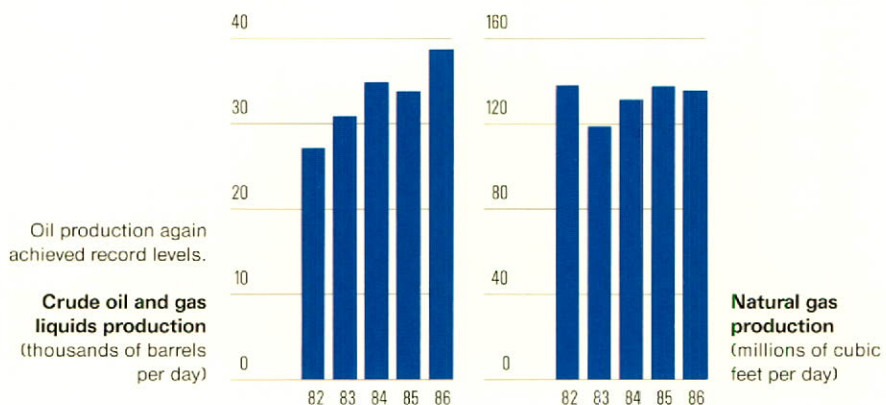
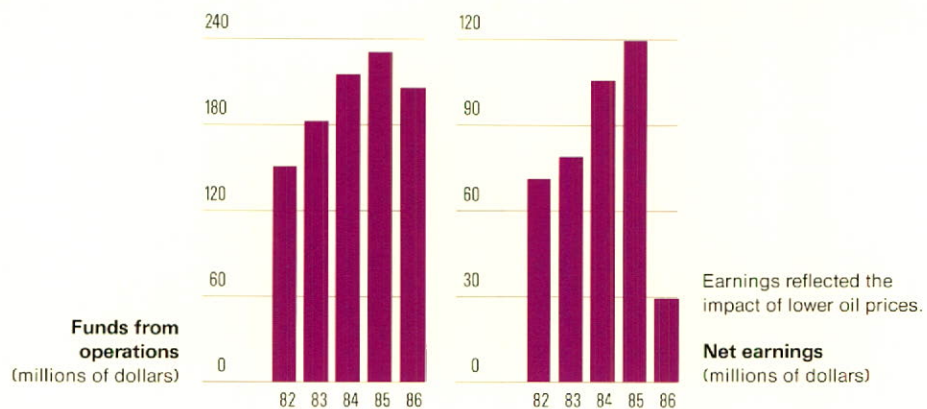


Norcen Energy Resources Limited is a major Canadian-owned natural resource enterprise whose principal business is, through its Oil and Gas division, the exploration for and development and production of hydrocarbons in Canada, the United States and Australia. Through its LPG Marketing and Transmission division, the Company distributes propane across Canada and operates pipelines for the transportation of oil, and transmission and distribution of natural gas primarily in Alberta. Norcen's other business consists of its Mineral Resources division, through which it participates in significant iron ore operations in Labrador.

At December 31, 1986, approximately 2,300 people were employed by Norcen of which 1,600 were employed by Superior Propane Inc., a wholly-owned subsidiary.



## Highlights



<b>Financial</b>	<b>1986</b>	<b>1985</b>	<b>% change</b>
	(millions of dollars)		
Sales and other revenues	<b>\$ 615.3</b>	\$ 665.9	- 8%
Funds from operations	<b>\$ 204.9</b>	\$ 228.9	-10%
Earnings applicable to ordinary shares			
Before extraordinary item	<b>\$ 31.1</b>	\$ 108.0	-71%
Including extraordinary item	<b>\$ 10.9</b>	\$ 108.0	-90%
Capital expenditures	<b>\$ 159.9</b>	\$ 285.6	-44%
	(dollars)		
Per ordinary share			
Earnings			
Before extraordinary item	<b>\$ 0.64</b>	\$ 2.03	-68%
Including extraordinary item	<b>\$ 0.22</b>	\$ 2.03	-89%
Dividends	<b>\$ 0.50</b>	\$ 0.50	
Market price			
High (voting)	<b>\$ 16.75</b>	\$ 17.38	
Low (non-voting)	<b>\$ 10.00</b>	\$ 11.88	
Close			
Voting	<b>\$ 16.38</b>	\$ 16.63	
Non-voting	<b>\$ 15.13</b>	\$ 15.50	
	(millions)		
Ordinary Shares			
Average number outstanding	<b>48.9</b>	53.3	
Annual volume of trading	<b>10.5</b>	22.1	

## **Operating**

Oil and gas production	(thousands of barrels per day)		
Oil and gas liquids	<b>38.8</b>	33.5	+16%
	(millions of cubic feet per day)		
Natural gas	<b>136.2</b>	137.4	- 1%
Net wells drilled	<b>96</b>	177	
Oil and gas reserves	(millions of barrels)		
Oil and gas liquids	<b>127.8</b>	117.3	+ 9%
	(billions of cubic feet)		
Natural gas	<b>1,148</b>	1,113	+ 3%

**1986: events and responses**

The past year was a difficult one for the petroleum industry, and a challenging one for Norcen, largely due to declines in oil prices. The Company's 1985 annual report noted that, "... Norcen had anticipated crude oil price declines and is well-positioned to withstand their effect..." The price collapsed even more than anticipated and remained low throughout the year. While financial results are far from the previous year's record levels, it is clear that Norcen has withstood declining prices and remains financially and operationally strong.

Oil prices declined in 1986 to approximately 50 per cent of their 1985 levels. More importantly, considerable uncertainty was introduced into the international energy market, as the nations of the Organization of Petroleum Exporting Countries were unable to manage supply in a manner which would have prevented a sharp decline in prices. Only at year's end were they able to exert their influence to stabilize prices at new and much lower levels.

Changes in government policy continued to influence the fortunes of Canadian oil and gas companies. On November, 1, 1986, domestic natural gas prices were deregulated. The immediate effect was a decline in prices to producers. While there continue to be concerns about the degree to which markets will be free from government regulation, Norcen remains convinced that deregulation is a positive step in the long term.

Governments also moved to assist industry and to adjust their fiscal systems to new realities. The federal government removed the Petroleum and Gas Revenue Tax ahead of schedule. Provincial governments responded with temporary programs which were subsequently replaced by longer range adjustments to royalty rates and terms. While these measures could only partially offset the effects of lower price levels, they also represent a positive long-term development.

The Company conducted a careful review of its operations, and difficult decisions were made. In the face of declining cash flow and less attractive project economics, capital expenditures were reduced by approximately 35 per cent from budgeted levels. After a review of the prospects of the industry and the Company, it was determined that reductions in staff levels were necessary. A number of employees were offered early retirement and, regrettably, others had to be terminated.

Norcen today is in a solid position, prepared to capitalize on emerging opportunities while maintaining its focus on profitable operations in all sectors.

**1986: corporate highlights**

Financial markets demonstrated their confidence in Norcen in 1986. Through a preferred share issue in the first quarter and a convertible debenture issue in the fourth quarter, the Company raised a quarter of a billion dollars in equity-related financing. The effect was to significantly reduce debt levels and strengthen the balance sheet.

Increased oil production helped to offset the effects of lower prices. The acquisition of several producing properties, upon termination of a partnership with Gulf Canada, increased production, as did the commencement of production from the Jabiru project offshore Australia. Overall, crude oil and liquids production was up 16 per cent over 1985, reaching a record 38,809 barrels per day.

The Company's exploration and development activities provided positive results in 1986, as well. It is estimated that major exploration and development projects added approximately 3,200 barrels per day of oil and liquids and 15 million cubic feet per day of natural gas to Norcen's productive capacity in Western Canada.



Norcen also continued to experience success outside Canada. In the United States, the Company participated in two discoveries in Louisiana; one of natural gas and one of oil. Daily production in the U.S. averaged 1,400 barrels and 12.6 million cubic feet of oil and natural gas, respectively. Off the north-west coast of Australia, the presence of potentially commercial volumes of oil was confirmed at Challis, near the Jabiru field in the Timor Sea. Evaluation of the potential for development of this discovery is currently underway.

Declining energy prices have resulted in the suspension of most exploration in the Canadian frontier areas. Last year, the Company reported its participation in a major discovery at Amauligak, in the Beaufort Sea. Delineation drilling and an extended production test in the summer of 1986 demonstrated the presence of significant oil reserves, and the project has the potential to lead development in the area. While activity in the Beaufort Sea is now suspended, the Company is assessing the possibility of early, seasonal production from the area.

With the acquisition of the business of Superior Propane Limited in June 1986, Norcen became the largest retail distributor of propane in Canada. The integration of Norcen's existing Cigas and Monarch operations into a new corporation, Superior Propane Inc., is now substantially complete, and the benefits of greater efficiency and economies of scale are being realized. Revenues in the LPG Marketing and Transmission division were up 80 per cent in 1986, reflecting the contribution of Superior for the last seven months of the year.

In the Mineral Resources division, revenues increased 16 per cent as a result of higher dividends and iron ore royalties. After a careful evaluation of its mineral holdings, the Company wrote off certain of its properties, including its interest in the Obed-Marsh coal project in Alberta.

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#### **1987: outlook**

The firming of oil prices at the end of 1986 and into early 1987 has given the Canadian energy industry reason for renewed optimism. However, the fundamental problem of over-supply still exists and there is some doubt that the OPEC agreement is sustainable.

The performance of oil markets and prices must be watched carefully over the next few months, before any conclusions can be drawn. Norcen remains cautiously optimistic about the market for Canadian natural gas as well. Barring further major declines in oil prices, it is not likely that natural gas prices will fall much further.

Oil and gas exploration and development will continue to present profitable opportunities. Norcen is in a strong position to capitalize on opportunities that other companies may have to forego. Changes in royalties and taxes, combined with falling costs, have also served to mitigate the effects of lower prices.

The Company can expect to maintain its record pace in liquids production, benefiting from a full year's production from Jabiru and properties acquired from the Gulf partnership, and from newly discovered oil in Louisiana and Western Canada. The Company also expects that natural gas production will increase from the 1986 level of 136.2 million cubic feet.

Earnings and cash flow will improve in 1987 even if prices remain at 1986 levels. This will come as a result of production increases, lower taxes and royalties, reduced financing costs, and from new operating efficiencies, downsizing and reorganization effected in 1986.

The first full year of operation of Superior Propane Inc. will result in increased earnings from the LPG Marketing and Transmission division. While the mineral business will continue to face depressed markets, Norcen's



## Report to shareholders

mineral royalty and dividend income will continue to provide positive cash flow to the Company.

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### Strategy

Following the downturn of 1986, the Company is poised to mount sustained recovery. As in past years, priority will be placed on maintaining financial flexibility and balance sheet strength. As cash flows improve, the Company will continue to retire debt. At the same time, Norcen intends to maintain its level of investment, with 1987 capital spending similar to that of 1986.

Norcen's exploration and production activities will continue to focus on three areas: the Western Canada Sedimentary Basin, the U.S. Gulf Coast, and the Timor Sea offshore Australia. The Company's prime thrust will be to find and develop low-cost oil and gas reserves, in areas where its expertise and land position confer a competitive advantage. Norcen will maintain, with selected investments, its position in long-term, high cost reserves in heavy oil and frontier areas. Geographic balance will be maintained, reducing the Company's vulnerability to sudden changes in policy and fiscal regimes.

Existing assets will be carefully managed, in order to decrease costs and optimize revenues, maximizing the value of production streams and of land holdings.

Superior Propane Inc. will continue its aggressive marketing efforts. Superior has a large share of the Canadian market, and will seek to maintain and expand that share by providing propane to all sectors of the economy. Superior will also seek opportunities to expand selectively into regions it does not now serve.

Overall, the Company has emerged strong and financially healthy. Norcen is ideally positioned to capitalize on profitable opportunities which exist in its core business areas and

will continue to invest and grow, increasing its revenue and asset values.

Edmund C. Bovey, who served as Norcen's Chairman until his retirement in 1981 and subsequently as an active member of the Board, retired from the Board in 1986. Mr. Bovey's experienced counsel and sustained contribution will be missed.

Also retiring from the Board were Fredrick A.M. Huycke, Richey B. Love and John R. Finlay. Their years of service to the Company are deeply appreciated.

Newly elected to the Board were Jack L. Cockwell, Robert A. Dunford, J. Trevor Eyton and David W. Kerr, representing Brascan Limited and Hees International Limited, which became the major shareholder of the Company in 1986. The expertise of these new directors and the resources of the Brascan/Hees group will complement Norcen's own capabilities. At the time of his election, Mr. Eyton was appointed Chairman of the Board, succeeding Conrad M. Black who became Vice-Chairman. Also elected in 1986 was Clifford A. Rae, who was associated with Norcen as legal counsel for many years.

After retiring from a distinguished career with M.A. Hanna Company, Robert F. Anderson resigned from Norcen's Board of Directors in December, 1986. Mr. Anderson contributed five years of advice and counsel, which are gratefully acknowledged. Concurrently, Martin D. Walker, the new Chairman and Chief Executive Officer of M.A. Hanna Company, was appointed to replace Mr. Anderson.

In conclusion, it is most appropriate to recognize the contribution of the Company's most significant asset—its people. Employees who have weathered the difficulties and uncertainties of the past year deserve the heartfelt thanks and admiration of management and shareholders. Without their ongoing contribution, the Company would not be what it is today.

On behalf of the Board



Edward G. Battle  
President and Chief  
Executive Officer

February 17, 1987





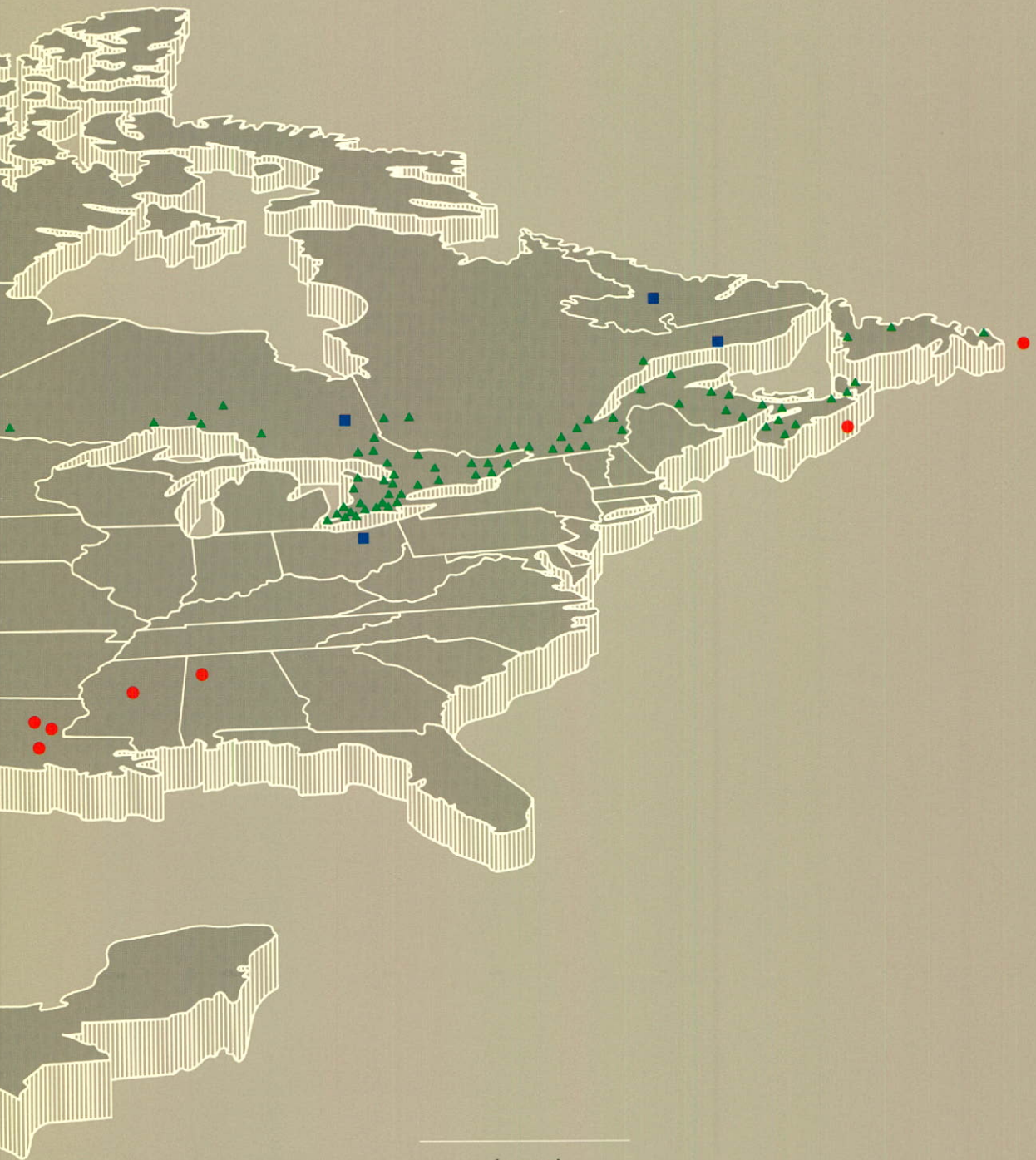
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## *Oil and Gas*

Revenues declined 32 per cent as a result of falling prices.

Oil and natural gas reserves increased by nine per cent and three per cent respectively.

In 1986, oil and liquids production reached record levels.

In 1987, the Company will continue its focus in Western Canada, the United States and Australia.





It is most appropriate to recognize the contribution of employees who have weathered the difficulties and uncertainties of the past year.

## Oil and gas

Changing markets had a significant impact on Norcen's oil and gas operations in 1986. Revenues declined 32 per cent to \$288.8 million, as a result of falling oil and gas prices and poor markets for natural gas. At the same time, new production in Australia and from newly-acquired properties in Alberta resulted in all-time record oil and liquids production of 38,809 barrels per day, up from 33,453 barrels per day in 1985.

Ongoing exploration and development activities, bolstered by acquisitions, more than replaced the Company's production of oil and natural gas. At the end of 1986, oil and natural gas reserves were up by nine per cent and three per cent, respectively.

Total oil and gas capital expenditures net of federal and provincial incentives and net of acquisitions was \$144.1 million in 1986, which represents a decline of 28 per cent from 1985, and a reduction of approximately 35 per cent from initial budget amounts.

In 1987, the Company will continue to focus its exploration and development efforts in three areas: the Western Canada Sedimentary Basin, the U.S. Gulf Coast and the Timor Sea offshore Australia. Within these regions, Norcen will concentrate on areas where land position and expertise confer a competitive advantage and on carefully selected new prospects. While emphasis will be on finding and developing low-cost conventional oil and gas where immediate returns are available, the Company will maintain its position in long-term, high-cost sources such as heavy oil, oil sands and the Canadian frontier.

### **Exploration and development** **Western Canada**

Of total capital spending in 1986, 81.7 million was spent in Western Canada, representing \$43.3 million on exploration and \$38.4 million

on development. The Company's Western Canadian land position totalled four million acres at the end of the year.

Norcen continued to focus on oil in 1986, with 228 of its 268 gross successful completions resulting in oil wells. While oil exploration will continue to be emphasized, the priority will be on finding reserves of oil or gas which can be readily connected to markets. Existing reserves will be carefully managed to reduce costs and maximize revenues.

Oil reserves and production increased significantly in 1986. The single largest addition was the acquisition of interests in the Snipe Lake Beaverhill Lake, Stettler D-3A, Fenn West D-2A and Stettler Nisku D-2 properties in March 1986, as a result of Norcen's withdrawal from the partnership with Gulf Canada. These properties have added 2,500 barrels per day to Norcen's productive capacity in Alberta.

The Company was active in central and north-central Alberta in 1986. Following a successful 1985 discovery well at Lubicon, 12 new oil wells were drilled in 1986, four of which are eligible for five-year royalty holidays. The Company's current share of production from this area is approximately 750 barrels per day.

At Pembina, 23 new wells added an additional 300 barrels per day to the Company's productive capacity. Three new wells at Cherhill and two at Triangle/Kenzie added 200 barrels per day and 150 barrels per day to Norcen's capacity, respectively.

Declining prices reduced the attractiveness of most heavy oil activity, and the Company cut back its efforts accordingly. At Bodo, Norcen continued its active long-term involvement in the development of heavy oil enhanced recovery technology and saw an increase in production of almost 720 barrels per day.



In 1986, Norcen donated more than 70 paintings and works of art to the Art Gallery of Ontario in Toronto and Calgary's Glenbow Museum. The directors of both organizations described it as an "historic precedent".

'The Norcen Gift' included exemplary works by twentieth century Canadian artists such as Shadbolt, Milne and Jack Chambers and is indicative of the Company's commitment to support for Canadian artists.

The collection has been built over the past 20 years under two guidelines: works should be by living Canadian artists, and they must be of high quality.

At the time of presentation, Norcen President, Edward G. Battle described the rationale for the donation. "In presenting works from the Norcen collection to the AGO and the Glenbow, we are pleased that they will now be viewed by greater numbers of Canadians in the eastern and western parts of the country."

Such contributions highlight Norcen's philosophy of supporting communities in regions where the company is active. In 1986, Norcen received more than 500 requests for financial support and all were assessed against company-guidelines.

In response to growing demands on social service agencies, Norcen increased its contributions to both the United Way and Salvation Army campaigns in 1986. This was in addition to maintaining financial support of other local or national non-profit organizations involved with health and welfare, culture, civic and public education causes.

In the education category, Norcen made major contributions to universities in Alberta, Saskatchewan and Newfoundland. The Company also continued its support of organizations conducting research in the fields of mental health and geriatrics.

At the ongoing in-situ combustion pilot, air injection was terminated early in the year. In spite of this, production increased due to improved well performance, reduced gas production and continued improvements in recovery methods. As well, steam injection commenced in March at a new thermal recovery pilot. Infill drilling at North Bodo resulted in more than 100 barrels per day of new productive capacity.

In total, major exploration and development activities added approximately 3,200 barrels per day to Norcen's capacity in Western Canada.

Gas activity continued to be restricted to areas readily connected to markets. Additions to Norcen's productive capacity associated with properties acquired from the Gulf partnership amounted to more than five million cubic feet per day. Exploration and development activity is estimated to have added 15 million cubic feet per day of productive capacity, mostly in Alberta.

### Canadian frontier

Activity in the frontiers was largely discontinued in 1986 as a result of declining prices and the end of the Petroleum Incentives Program. The Company has developed an excellent portfolio of land holdings in both the Arctic and East Coast regions, and will work to maintain this position. In doing so, Norcen will ensure its ability to capitalize on the eventual development of these important long-term reserves.

At Amauligak, in the Beaufort Sea, two delineation wells were drilled in 1986 from the site of the 1985 discovery well. While one well was abandoned, the second, Amauligak I-65B tested volumes up to 14,000 barrels per day. A subsequent extended production test resulted in recovery of 317,000 barrels of oil which were delivered to Japan by tanker. While activity in the Beaufort is currently suspended, the operator has proposed to drill two wells in the area in 1987, and to implement a seasonal production system which could be operational as early as 1988.

In the Grand Banks, offshore Newfoundland, the Company has concluded its farm-in arrangements and has no outstanding obligations. In 1986, the North Ben Nevis M-61 well was drilled, and will be tested this summer. The Whiterose M-61 well was drilled and abandoned after encountering no commercial hydrocarbons.

The Company acquired new interests in the Hebron, Ben Nevis and West Ben Nevis areas of the Grand Banks from the Gulf Partnership.

Norcen also completed its obligations on the Scotian slope, with the drilling of the Tantalum M-44 well, which encountered no commercial hydrocarbons and was abandoned.

### United States

Norcen continued to increase its presence in the United States in 1986.

With the withdrawal of M.A. Hanna Company at midyear, the Company terminated its joint venture with Sierra Production Company and Hanna. The programs initiated by the joint venture, which were concentrated in the Gulf Coast, will be continued by Norcen Explorer Inc., a wholly-owned subsidiary based in Houston, Texas.

Good results experienced to date merit continuation of exploration in the area. Offshore Gulf Coast opportunities are being considered which would offer exposure to prospects with high reserve potential.

The Company participated in two significant discoveries in the Louisiana Gulf Coast region in 1986. At Paige Lake, in Terrebonne Parish, a natural gas discovery, in which the Company holds a 57.5 per cent interest, resulted in completion of two wells, each capable of producing 4.5 million cubic feet per day of natural gas and 150 barrels per day of condensate to Norcen. Additional drilling is planned for 1987.

The second discovery is in the Fordoche field in Pointe Coupe Parish. Five oil wells have been completed with production rates of 350 to 500 barrels per day each. Norcen's share of production is estimated to be 525 barrels per day. Norcen holds a 30.6 per cent interest in this discovery.

At Sandbar East, in the Rocky Mountain basin of Wyoming, development continued with Norcen's share of production averaging 720 barrels per day in 1986. Unitization discussions are underway with the intent to undertake a waterflood which will be implemented in 1987 in order to stabilize and improve production rates.

In total, major exploration and development efforts in the United States are estimated to have added to the Company's productive capacity in excess of 900 barrels per day of oil and nine million cubic feet per day of natural gas.

### Australia

Norcen's exploration and development program in Australia gives the Company exposure to high reserve potential in a basin with relatively low technological and political risk.

In the Timor Sea, off the northwest coast, a development program was completed at the site of the 1983 Jabiru discovery, and the Jabiru 1A well was placed on steady production in August. Production is through a subsea well completion, connected by a moored floating production riser to a converted tanker. The

140,000 tonne vessel contains processing facilities and storage capacity for 750,000 barrels of oil. Oil is offloaded to tankers for delivery to markets.

Initial production rates of 13,500 barrels per day were increased to 16,500 barrels per day late in the year. Norcen holds a 12.5 per cent share of the Jabiru project and will participate in one additional well in the area in 1987.

Twelve miles southeast of Jabiru, evaluation drilling is ongoing at the 1984 Challis discovery, where Norcen also holds a 12.5 per cent interest. Three delineation wells were drilled in 1986 and, after testing production at rates from 2,500 barrels per day to 10,000 barrels per day, each was completed as a potential oil well. One further well may be drilled at Challis in 1987. Engineering studies are underway, and a decision regarding development of the reservoir is expected this year.

Norcen holds an interest in three permits in the Timor Sea, totalling 3.8 million gross (477,850 net) acres. In addition to the Challis wells, the Company participated in six wells on these permits, all of which were abandoned without encountering commercial hydrocarbons.

### Production

#### Liquid hydrocarbons

Total crude oil and liquids production reached record levels in 1986, as production increased from the previous year in all categories. Total oil and liquids production increased to 38,809 barrels per day from 33,453 barrels per day in 1985. Production continued to be below capacity as shipments were limited by market factors and by constraints in the capacity of Canada's major interprovincial pipeline system.

The Company partially offset volume restraints in the primary market with supplementary sales, which averaged 2,000 barrels per day in 1986. New pipeline capacity additions should reduce the restrictions on oil production by the end of the first quarter of 1987. Coincident with this expansion, the Alberta government announced the end of the current supplementary sales system, effective February 28, 1987. A new spot sales system will likely replace the cancelled program.

The prime source of increased oil production was properties acquired on withdrawal from the partnership with Gulf Canada. Production increases were also registered in the Lubicon,



Triangle and Cherhill fields in Western Canada, the Jabiru field in Australia and fields in the United States Gulf Coast area. These increases more than offset production declines and restrictions in other fields.

Heavy oil production was up 14 per cent, reaching 3,627 barrels per day in 1986. This reflects increased productivity in the Bodo and North Bodo areas.

Natural gas liquids production increased to 6,202 barrels per day in 1986, from 4,939 barrels per day in 1985. This increase was a result of production increases in the West Pembina and Minnehik-Buck Lake areas.

Norcen receives royalties from Suncor Inc. on sales of synthetic oil derived from mineable oil sands on a lease near Fort McMurray, Alberta. In 1986, net revenues amounted to \$22.0 million, compared to \$26.6 million in the previous year. The plant overcame production difficulties experienced in recent years, with average production reaching a record 56,300 barrels per day in 1986, compared to 39,500 barrels per day in 1985.

As a result of a decision of the Alberta Court of Appeal in a case respecting Norcen's entitlement to royalties from the production of synthetic oil, the Company increased retained earnings by \$17.3 million after taxes, as an adjustment to prior years' income.

### **Natural gas**

Production of natural gas, before royalties, declined slightly, to 136.2 million cubic feet per day in 1986, from 137.4 million cubic feet per day in 1985.

Canadian domestic demand declined slightly, while sales of natural gas to the United States were off markedly. In the contract year ended October 31, 1986, Canadian exports to the U.S. were down 16 per cent in the face of reduced demand and increased competition from U.S. domestic gas and fuel oil. Canadian export revenues declined by 28 per cent from the previous year, due to declining volumes and strong price competition.

The Company is hopeful that export sales will improve as U.S. gas deliverability surplus diminishes and as a result of more flexibility in the Canadian regulatory system.

Effective November 1, 1986, Canadian domestic gas sales were deregulated. Major gas contracts have been, or are being renegotiated. On most major sales outside the Province of Alberta, producers will receive prices on a "netback" basis, with transportation and marketing costs deducted from final sales prices to determine wellhead prices. The immediate result of deregulation was a decline in wellhead prices for domestic sales. The average price received by Norcen for natural gas in 1986 was \$2.25 per thousand cubic feet, compared to \$2.74 in 1985.

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### **Reserves**

The Company estimates its reserves of crude oil, synthetic crude and gas liquids, before royalties, were 127.8 million barrels at December 31, 1986. This compares to 117.3 million barrels at the end of 1985. Estimated reserves of natural gas, before royalties, were 1,148 billion cubic feet, compared to 1,113 billion cubic feet at the end of 1985. These amounts do not include Norcen's interests in the Beaufort Sea, Arctic Islands or oil sands deposits at Cold Lake, Alberta.

The Company estimates its proved and probable reserves in the United States to be 4.2 million barrels of crude oil and liquids and 105.0 billion cubic feet of natural gas, at December 31, 1986, compared to 3.4 million barrels of oil and 91.5 billion cubic feet of natural gas at the 1985 year-end. Estimated reserves of crude oil in Australia are 2.3 million barrels, not including Norcen's interest in the Challis discovery.



**Oil and gas**

**1986 Norcen exploration, development and acquisition highlights  
Western Canada**

	Drilling	Norcen share	New capacity <sup>1</sup>	Comments and future activity
<b>Conventional oil</b>				
Alberta				
<b>Alberta acquisitions</b>		24.6-100.0%	2,500 b/d	Interests in Snipe Lake, Fenn West, Stettler and Stettler Nisku acquired from Gulf.
<b>Lubicon</b>	12 oil wells	12.5-25.0%	750 b/d	Two wells planned in 1987.
<b>West Pembina</b>		52.5%	600 b/d	Waterflood to be implemented in early 1987.
<b>Pembina</b>	23 oil wells	7.04-90.0%	300 b/d	
<b>Cherhill</b>	3 oil wells	68.75-100.0%	200 b/d	
<b>Triangle (Kenzie)</b>	2 oil wells	100.0%	150 b/d	
<b>Other areas</b>	22 oil wells	19.5-100.0%	575 b/d	Includes Seal, Otter, Gift, Shouldice, Enchant, Fenn West, Countess-Lathom, Majorville, Swalwell, Snipe Lake, Gold Creek and North Bodo.
British Columbia				
<b>West Eagle</b>	4 oil wells	14.99%	100 b/d	
Saskatchewan				
<b>Tatagwa</b>	1 oil well	100.0%	75 b/d	
Total <sup>1</sup>			5,250 b/d	
<b>Natural gas</b>				
Alberta				
<b>Wildcat Hills</b>		24.4%	5.2 mmcf/d	Acquired from Gulf.
<b>Greencourt</b>	1 gas well	100.0%	3.8 mmcf/d	
<b>Spur</b>	1 gas well	85.0%	2.6 mmcf/d	To be on stream in early 1987.
<b>Other areas</b>		12.0-100%	8.0 mmcf/d	Includes drilling and tie-ins at Ferrier, Thunder, Gilby, Milo, Minnehik-Buck Lake, Simonette, Mitsue, Flatbush and Leahurst.
British Columbia				
<b>Doe</b>	1 gas well	17.5%	1.0 mmcf/d	Not tied-in yet.
Total <sup>1</sup>			20.6 mmcf/d	
<b>Natural gas liquids</b>				
Alberta				
<b>West Pembina (Brazeau River)</b>		30.7%	450 b/d	Ethane recovery facility to be in operation by mid-1987.
Total <sup>1</sup>			450 b/d	

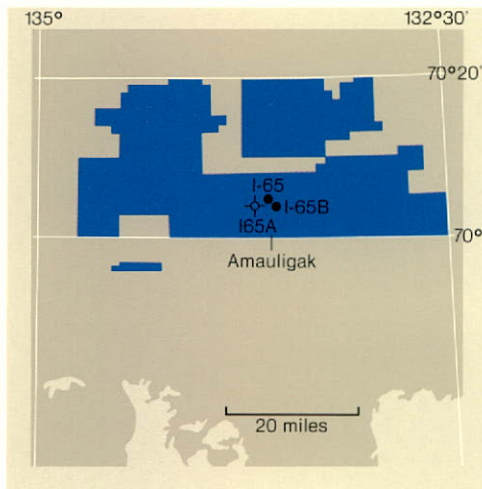
<sup>1</sup>Norcen share of estimated incremental productive capacity, before royalties, arising from 1986 activity.

**1986 Norcen exploration, development and acquisition highlights  
United States**

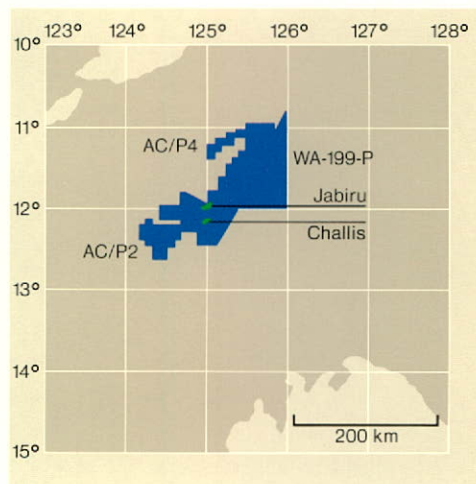
	Drilling	Norcen share	New capacity <sup>1</sup>	Comments and future activity
Louisiana <b>Paige Lake</b>	2 gas and cond. wells	57.5%	5.2 mmcf/d 170 b/d	Further development planned in 1987. Production to commence in first quarter 1987.
<b>Fordoche</b>	5 oil wells	30.6%	525 b/d	Further development planned in 1987.
<b>NW Oakley</b>	1 gas well	99.2%	1.6 mmcf/d	Production to commence in first quarter 1987.
Other	1 oil & gas well 1 gas & cond. well 2 oil wells	38.9% - 44.3%	2.2 mmcf/d 225 b/d	Includes South Grand Bois and Plumb Point, Louisiana; Wood County, Texas and acquisition of interests from Sierra Production Company.
Total			9.0 mmcf/d 920 b/d	

<sup>1</sup>Norcen share of estimated incremental productive capacity, before royalties, arising from 1986 activity.

**Beaufort Sea ■**  
Amauligak



**Offshore Australia ▼**  
Jabiru



**Legend**

- Norcen land interests . . . . . ■
- Oil Well . . . . . ●
- Abandoned well . . . . . ⊕
- Oil pool . . . . . ■

## Oil and gas

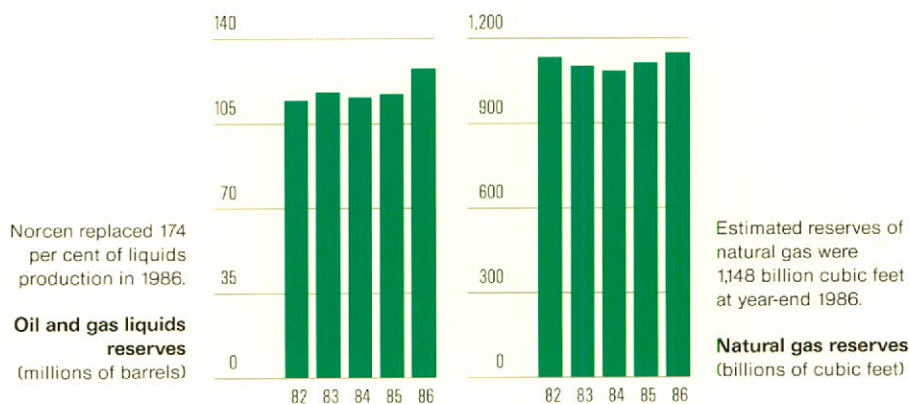
### Oil and gas land holdings

December 31, 1986	Leases		Permits, Licences and Exploration Agreements		Total	
	Gross	Net	Gross	Net	Gross	Net
	(thousands of acres)					
<b>Canada</b>						
Alberta	3,787	1,539	354	218	4,141	1,757
British Columbia	729	179	9	5	738	184
Saskatchewan	206	94	28	18	234	112
Manitoba	87	32	—	—	87	32
Ontario	2	1	—	—	2	1
<b>Canadian frontier</b>						
Arctic	2	1	3,027	187	3,029	188
Beaufort Sea	16	3	2,064	222	2,080	225
Yukon	—	—	1,620	648	1,620	648
Northwest Territories	—	—	259	37	259	37
Offshore East Coast	13	2	6,362	623	6,375	625
<b>Total Canada</b>	<b>4,842</b>	<b>1,851</b>	<b>13,723</b>	<b>1,958</b>	<b>18,565</b>	<b>3,809</b>
<b>International</b>						
United States	677	178	—	—	677	178
Australia	—	—	3,823	478	3,823	478
<b>Total</b>	<b>5,519</b>	<b>2,029</b>	<b>17,546</b>	<b>2,436</b>	<b>23,065</b>	<b>4,465</b>

In addition to the above, overriding royalty interests are held in 2,259,714 gross acres and net carried interest in 154,533 gross (8,094 net) acres.

### 1986 drilling statistics

	Oil		Gas		Dry		Total	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
<b>Western Canada</b>								
Exploration	36	9.4	16	2.1	55	23.5	107	35.0
Development	170	27.0	17	4.8	11	5.0	198	36.8
<b>Canadian frontier</b>	3	0.4	1	0.1	2	0.1	6	0.6
<b>Total Canada</b>	<b>209</b>	<b>36.8</b>	<b>34</b>	<b>7.0</b>	<b>68</b>	<b>28.6</b>	<b>311</b>	<b>72.4</b>
<b>International</b>								
United States	16	4.8	6	3.3	42	14.3	64	22.4
Australia	3	0.4	0	0.0	6	0.6	9	1.0
<b>Total International</b>	<b>19</b>	<b>5.2</b>	<b>6</b>	<b>3.3</b>	<b>48</b>	<b>14.9</b>	<b>73</b>	<b>23.4</b>
<b>Total</b>	<b>228</b>	<b>42.0</b>	<b>40</b>	<b>10.3</b>	<b>116</b>	<b>43.5</b>	<b>384</b>	<b>95.8</b>



**Liquid hydrocarbons production**

(barrels per day before royalties)

	1986	1985
<b>Alberta</b>		
West Pembina	5,402	5,191
Pembina	2,538	2,610
Countess-Lathom	2,036	2,280
Provost-Bodo	1,908	1,224
Harmattan	1,640	1,848
Stettler	952	
Lloydminster	900	1,070
Taber North	794	659
Snipe Lake	722	
Minnehik-Buck Lake	696	468
Joarcam	665	716
Others	8,343	7,833
Synthetic crude	3,424	2,469
Processing liquids	2,043	1,787
	<b>32,063</b>	<b>28,155</b>
<b>Saskatchewan</b>		
Colgate	712	760
Tatagwa	423	504
Royalty interests	414	505
Others	1,220	1,171
	<b>2,769</b>	<b>2,940</b>
<b>British Columbia</b>		
West Eagle	1,168	1,026
Peejay	278	204
Others	189	186
	<b>1,635</b>	<b>1,416</b>
<b>United States</b>		
Sandbar East	718	641
Others	938	301
	<b>1,656</b>	<b>942</b>
<b>Australia</b>		
Jabiru	686	
<b>Total</b>	<b>38,809</b>	<b>33,453</b>

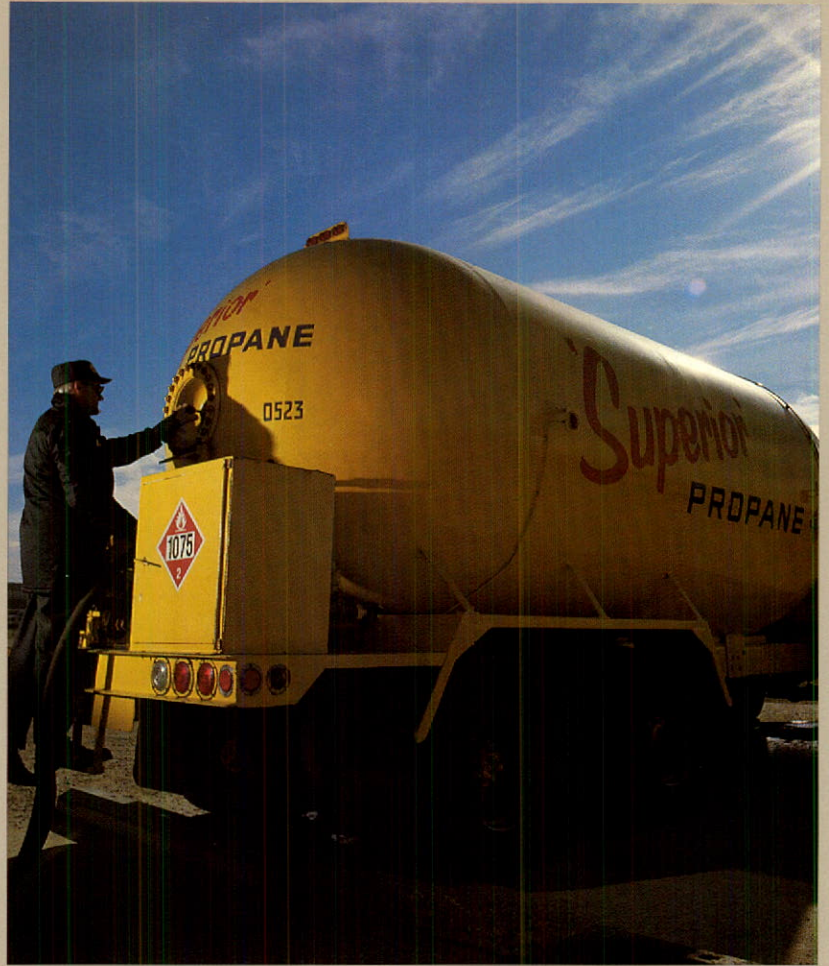
**Natural gas production**

(millions of cubic feet per day before royalties)

	1986	1985
<b>Alberta</b>		
Harmattan	16.1	18.4
Minnehik-Buck Lake	15.0	16.5
Boyer	5.2	8.1
Wildcat Hills	4.3	
Verger	4.3	4.6
Cherhill (Majeau Lake)	4.1	7.1
Westlock	4.0	3.5
Crossfield	3.6	6.6
Ghost Pine	3.3	3.7
Majorville	2.7	0.7
Bruce	2.6	2.5
Big Bend	2.5	2.7
Others	48.5	48.9
	<b>116.2</b>	<b>123.3</b>
<b>British Columbia</b>		
Yoyo	1.1	1.7
Jedney-Bubbles-East Laprise	0.9	1.0
Royalty interests	1.5	2.1
Others	2.7	3.1
	<b>6.2</b>	<b>7.9</b>
<b>Saskatchewan</b>		
	<b>1.2</b>	<b>0.4</b>
<b>United States</b>		
	<b>12.6</b>	<b>5.8</b>
<b>Total</b>	<b>136.2</b>	<b>137.4</b>



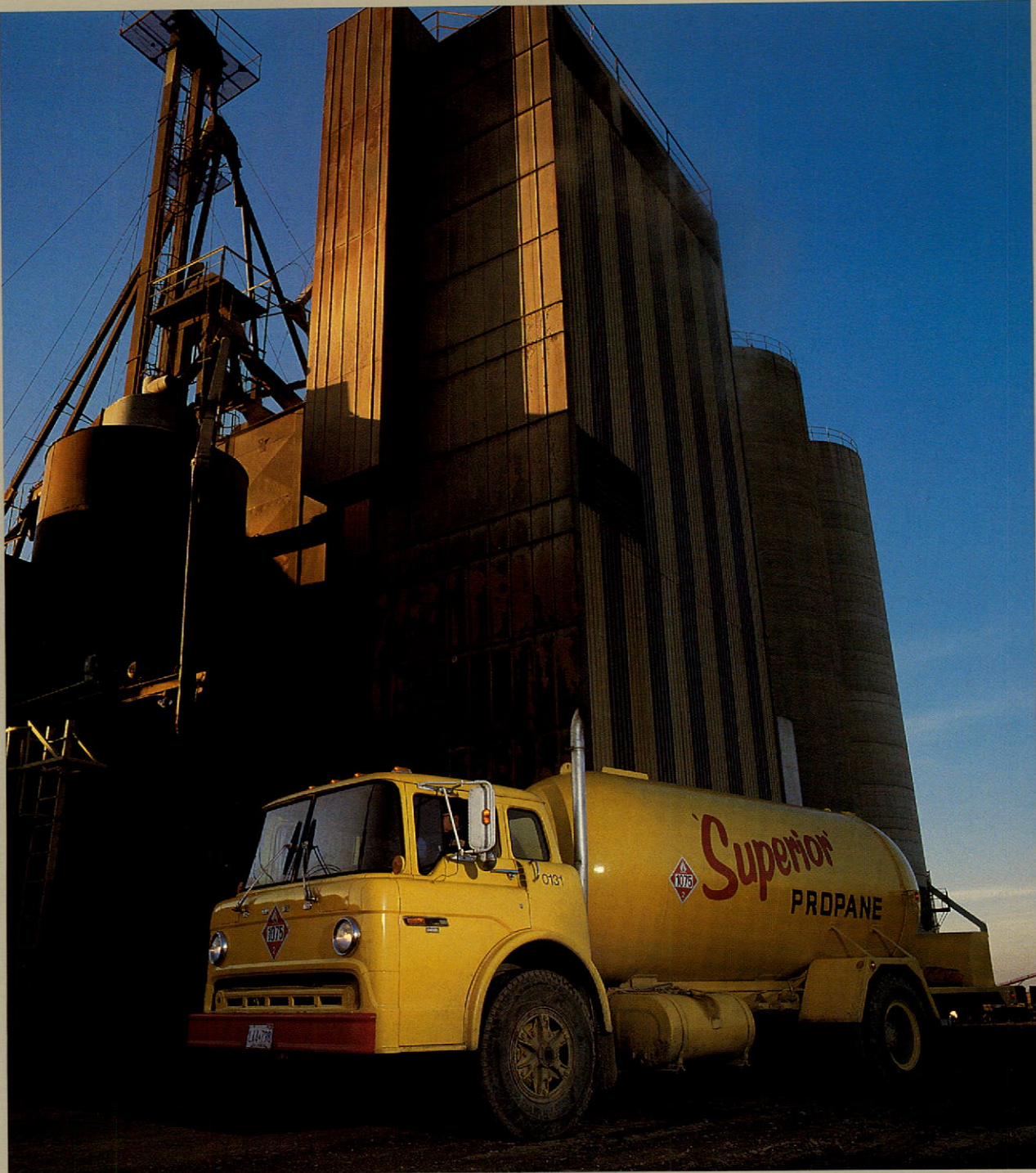
## LPG Marketing and Transmission



In 1986, Norcen became Canada's largest propane marketer.

Superior Propane Inc. serves more than 175,000 established customers across Canada.

Propane sales grew from 411 million litres in 1985 to 806 million in 1986 and are expected to exceed 1.2 billion litres in 1987.



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Agricultural applications for propane include the drying of grain. Superior has maintained a strong presence in this sector.

A marked increase in Norcen's revenues arose this year from activities in the LPG Marketing and Transmission division, which is responsible for marketing of propane; transmission, processing and distribution of natural gas, and transmission of crude oil.

**Propane marketing**

Norcen became Canada's largest propane marketer in 1986. The Company had been well represented in the propane business through Cigas Products Ltd. which was a leading propane distributor in Western Canada. In 1985, Monarch Propane Ltd. was acquired, establishing a presence in the southern Ontario market. In June 1986, Norcen purchased the assets and business of Superior Propane Limited, then the nation's second largest propane marketer.

During the second half of the year, the operations of Cigas and Monarch were combined with that of Superior. As a result of the consolidation, a new company—Superior Propane Inc.—was formed, which now has approximately 40 per cent of the domestic market.

The markets for propane in Canada reflect the product's versatility. The residential market is Canada's largest single market for propane, where it is used for heating, water heating and cooking. Although consumption in this sector is static due to energy conservation and keen competition from other energy sources, it continues to account for more than one third of the propane industry's total demand.

In the commercial sector, propane is used for cooking and heating in the hospitality and food service industries, for large heating requirements such as warehouses, municipal facilities and sports arenas, and heating for the construction industry. Superior is a leader in developing and installing on-site propane heating systems for construction and roofing projects.

Superior has an excellent reputation as a supplier to the residential and commercial markets, and is dedicated to offering a diversified range of propane consuming appliances and support services.

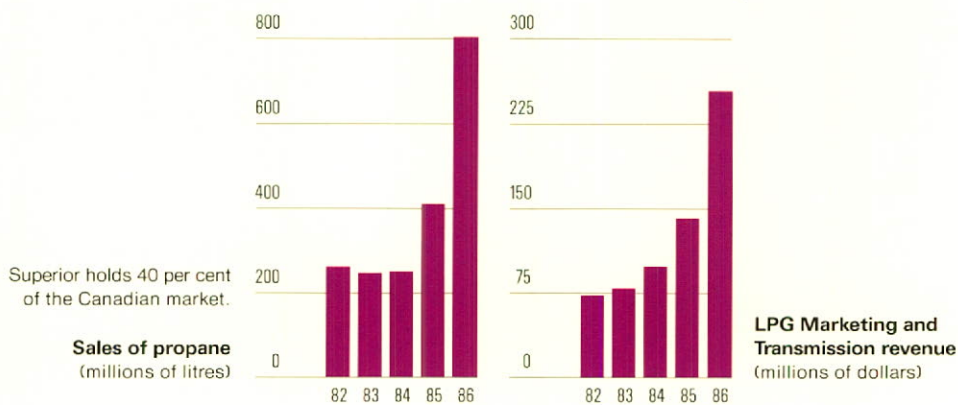
In the industrial market, Superior is the largest marketer of propane for forklift applications. Other major uses for propane include process heating and heat treating.

Agricultural applications include heating for pig and poultry brooding, the drying of grain and the curing of tobacco. Superior has maintained a strong presence in this sector.

A growing contribution to demand is attributable to the increased use of propane as an automobile fuel. This use now accounts for approximately one-fifth of total Canadian propane consumption. It is estimated that as many as 120,000 vehicles in Canada are now suitably equipped. Superior is active in conversion of targeted commercial fleets and has the largest auto propane network in Canada.

As a full service propane operation, Superior's objective is to identify and satisfy the energy requirements of all segments of the marketplace. The Company supplies propane fueled equipment and appliances and provides related customer service, training and support. Superior aggressively seeks and develops new applications for propane use and works to educate the public in safe operation and use of propane and related equipment.

Superior's national network provides comprehensive representation in all markets and in all regions of the country. The Company has 107 distribution and showroom centres located in every province in Canada except Prince Edward Island, where expansion is scheduled for 1987. The Company is dedicated to a philosophy of customer service, technical expertise and safety, and continuation of a balanced business mix.





Several times a month, Superior Propane employees across the country are tuned to televisions as part of one of Canada's most progressive training programs.

Videotapes are teaching Superior's employees the facts about propane, the best way to sell barbecues or how to improve their writing skills. Truck drivers review safety procedures. Superior's customers and agents are shown how to fill propane cylinders safely or the correct procedures for automobile propane conversions. Even some local fire departments supplement their training with tapes from Superior's library.

Proper procedures comprise a large component of the 100-tape library. For an industry deeply concerned with safety, using videotapes means employees receive standardized training. Topics are covered consistently and thoroughly, and correct information is always easily accessible.

"There is some truth to the adage: 'a picture is worth a thousand words,'" says Jim Mills, Superior's coordinator, training and video resources. "We still rely on procedure and safety manuals, but with a video presentation, we can reinforce printed messages and clarify areas where there may be room for interpretation."

The video program can also be credited with increasing awareness of safety among propane users, particularly in industries with a high ratio of new employees. For example, to supplement propane safety manuals for construction and roofing contractors, the company produced a video which was targeted to site personnel.

Since the project's inception about 1½ years ago, each branch office has been equipped with viewing equipment. When commercial tapes are unavailable, Superior produces its own shows in both English and French.

One measure of response to the program is that employees are taking video tapes home to watch a growing list of subjects: equipment maintenance, presentation skills or motivational techniques... even details of the company's employee benefits plan which are available via their television sets.

Norcen's sales volumes of propane in 1985 were 411 million litres, growing to 805 million litres in 1986. It is expected that 1987 sales will exceed 1.2 billion litres. Superior serves more than 175,000 established customers across Canada. By maintaining a geographically diverse and segmented customer base, the Company seeks to minimize seasonal and cyclical volume fluctuations in individual market sectors or regions.

By consolidating all of its propane operations into Superior, Norcen has been able to achieve operating efficiencies and economies of scale which will have lasting benefit.

It is expected that propane demand will remain stable in the coming year and will increase slowly over the following five years. As a result, Superior will concentrate on retaining, optimizing and increasing its customer base through continued emphasis on full-service propane marketing, and by building upon the national brand identity of Superior Propane Inc.

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#### ***Industrial gas system***

Norcen continues to own and operate a natural gas gathering and distribution system in Alberta consisting of two processing plants and approximately 320 miles of pipeline. The system serves a variety of producers in the north central part of the province, transporting gas to several industrial users in the Edmonton region as well as a variety of other gas purchasers.

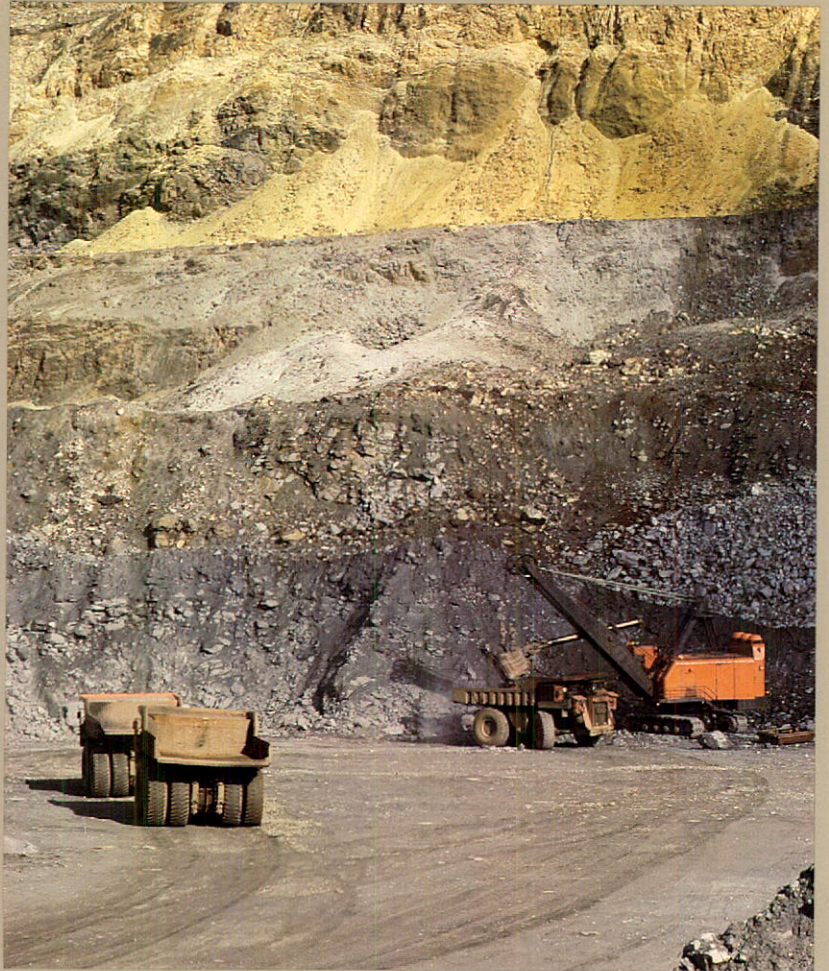
Average sales of the industrial gas system in 1986 were 44 million cubic feet per day as compared to 42 million cubic feet per day in 1985.

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#### ***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 movements through the system averaged 81,300 barrels per day in 1986 and 78,600 barrels per day in 1985.

## *Mineral Resources*



In 1986, IOC sold 14.8 million tonnes of ore.

Norcen received royalties of \$37.6 million from IOC.

Hanna continued to restructure its operations in the face of declining resource markets.



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IOC has been able to maintain  
its competitive position  
in world markets.

## *Mineral resources*

The major assets of Norcen's mineral resources division are a royalty interest in iron ore produced by Iron Ore Company of Canada (IOC), a 10.47 per cent equity interest in IOC and a 28.15 per cent interest in the M.A. Hanna Company.

### ***Iron ore***

IOC is a major producer of iron ore, whose shares are held by Norcen, Hanna and four North American steel producers. The Company sells iron ore pellets to its shareholders and to other purchasers in North America, and sells pellets, concentrates and natural ore to overseas markets. IOC operations are the largest in Canada. Its known iron ore reserves will support operations at current levels for at least 30 years.

IOC mines raw ore at sites near Labrador City, where it also operates concentrating and pelletizing facilities. Ore in concentrate and pellet form is then shipped to Sept-Îles, Quebec, where it is handled at IOC-owned storage and dock-loading facilities.

In 1986, IOC sold a total of 14.8 million tonnes of ore, compared to 15.5 million tonnes in 1985. Sales in 1986 were comprised of 9.5 million tonnes of pellets, 3.9 million tonnes of concentrates and 1.4 million tonnes of blended ore.

IOC pays a royalty to a Norcen subsidiary of seven per cent of the sales price for each tonne of iron ore sold. In 1986, the Company received royalties totalling \$37.6 million from IOC, compared to \$33.2 million in 1985.

IOC has been able to maintain its competitive position in world markets, in spite of ongoing difficulties experienced by the iron ore and steel industry worldwide. IOC's scale of operations, the quality of its reserves, and its proximity to the North American market have all contributed to its success.

Pellet sales contracts between IOC and its steel company shareholders were renegotiated effective January 1, 1986. Under the revised agreements, fixed annual tonnage obligations are established, with prices being subject to adjustment based on world price levels. Hanna's obligation to purchase iron ore from IOC was terminated, but Hanna will continue to manage IOC and to act as its exclusive sales agent.

### ***M.A. Hanna Company***

M.A. Hanna Company is a diversified natural resource company based in Cleveland, Ohio. Hanna's major interests include: mining, processing and transportation of iron ore, silicon and ferro-silicon; coal mining; oil and gas drilling and production, and rubber and plastic processing.

In 1986, Hanna continued to restructure its operations in the face of declining resource markets. That company's loss of U.S. \$104.5 million in 1986 includes nonrecurring charges of U.S. \$135.3 million in respect of ongoing restructuring efforts. Major sources of these charges were: the closure of nickel operations in Oregon and a write-off of other nickel assets; re-valuation of certain coal mining assets; write-offs and loan guarantee liabilities in respect of an oil well servicing subsidiary; write-downs in the value of idle oil and gas drilling equipment, and re-valuation of other mineral and oil and gas assets.

In the iron ore industry, Hanna manages IOC and holds a 26.8 per cent interest in that company. Hanna also operates vessels and dock facilities for the transportation of coal and iron ore in the Great Lakes.



The 50 scrapped rail cars piled precisely, one on top of another, to support a new rail line overpass at Iron Ore Company's (IOC's) Carol Lake facility, are an example of IOC's commitment to remaining one of North America's most cost effective iron ore producers. The bridge also illustrates the ingenuity required to competitively meet market demand for a new product: fluxed pellets.

Unlike ordinary iron ore pellets, fluxed pellets are laced with dolomite and limestone and when used in the steel-making process can increase the energy efficiency and throughput of blast furnaces. To supply an order for 1.2 million tonnes of fluxed pellets in 1986, IOC was facing a three month deadline in which to complete major facility modifications and open a local dolomite quarry, at minimum cost and in winter weather conditions.

"One of the project's highlights was the speed in which it was completed," says Iain Tinto, IOC's manager, engineering. "We had to come up with quick ways to do things, so we used a lot of available bits and pieces from various other facilities."

By July, on schedule, fluxed pellets were being produced using facilities built largely from reclaimed materials. Dolomite was mined from a new quarry, limestone was being off-loaded from a new 1,400 foot rail line spur and a new blending system was in operation.

Building the overpass was a challenge in itself. Due to cold weather, concrete could not be poured and even if temperatures permitted, the cost was prohibitive. On one scouting trip for reusable materials, retired rail cars were spotted and an idea hatched to reclaim them to support the overpass. As trucks now roll over the unusual structure, it stands as a reminder of the project's slogan: "It Can't Be Done"—with a strong, black 'X' over the apostrophe and letter 'T'.

In 1986, Hanna sold its 96 per cent interest in the St. John d'el Rey Mining Company, which in turn owns a one-third interest in a large, privately-owned iron ore producer in Brazil.

Hanna continues to be active in the coal industry, owning 50 per cent of Colowyo Coal, a large open pit steam coal mine in Colorado.

Hanna has oil and gas production interests in the United States and through a subsidiary is involved in oil well drilling.

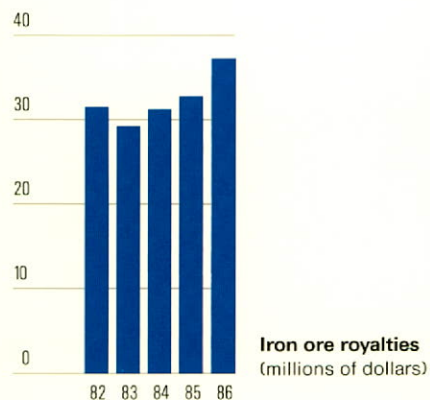
In a major diversification, Hanna purchased the privately-owned Burton Rubber Processing Inc., in December 1986. Burton is engaged in mixing polymer compounds for sale to manufacturers of plastic and rubber products. The acquisition demonstrates Hanna's desire to expand in industries which provide primary products to manufacturers.

Hanna continues to produce silicon and ferro-silicon in Washington state, to provide consulting and management services and to operate a metallurgical research facility.

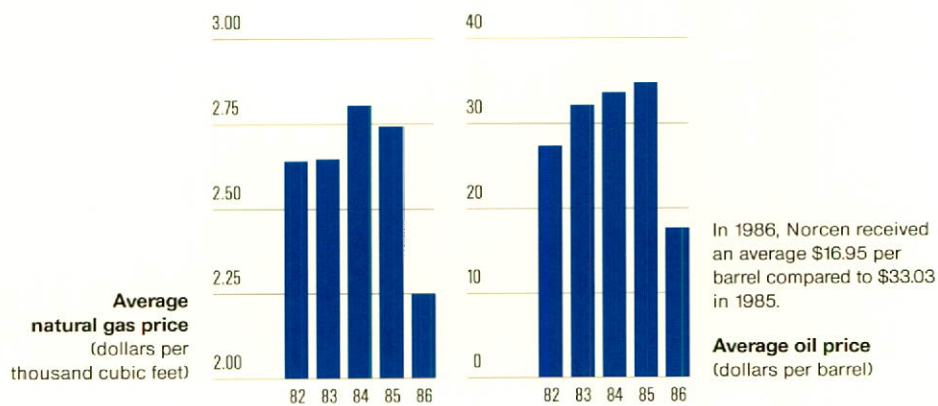
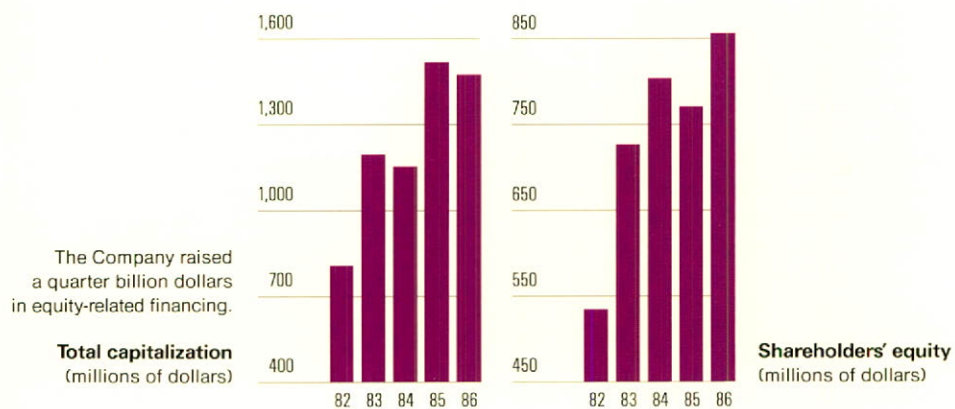
#### **Other interests**

Included in the Company's mineral interests are royalties on gold production in Ontario and an approximate six per cent working interest in the Obed-Marsh coal project in west-central Alberta.

In the third quarter of 1986, the Company reviewed its mineral holdings and wrote off the value of some of these holdings, including its interest in Obed-Marsh. As a result, the Company incurred an extraordinary loss of \$20.1 million after deferred income tax reductions.



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## **Management's financial analysis and discussion**

Prior to 1986, the Company achieved four successive years of significant growth in financial performance. This was abruptly arrested when earnings before extraordinary items dropped from the record high of \$119.7 million in 1985 (up 15 per cent from 1984) to \$50.0 million in 1986, a 58 per cent reduction. The decline was attributable to reduced contributions from the Oil and Gas division and was only partially offset by increased contributions from the other operating divisions.

After acquiring the assets and business of Superior Propane Limited (see Note 3 to the financial statements), Norcen is the largest retailer of propane in Canada. As a result, the Company segregated its reporting into three divisions: Oil and Gas, Mineral Resources and the new LPG Marketing and Transmission division. Results and contributions from the three areas of operations are set out in Note 14 to the financial statements.

Cash flow from operations declined 10 per cent to \$204.9 million in 1986 from \$228.9 million in 1985 and \$214.5 million in 1984. Net earnings declined proportionately more than cash flows as a result of book write-offs and depletion and depreciation expenses, which do not decrease in relation to sales revenues and as a result of significant reductions in current income taxes.

Basic earnings per share before extraordinary items declined from \$2.03 per share to \$0.64 in 1986, despite a reduced weighted average number of shares outstanding. Norcen made two issuer bids in 1985 which caused the reduction in share numbers.

The most significant factor in the Company's reduced performance this year was the decline in crude oil prices. The decline began early in the year as the result of a global oversupply of oil. The price of North American benchmark crude, West Texas Intermediate, fell from U.S. \$26.30 per barrel on January 3, 1986, to a low of U.S. \$9.75 in April 1986. Despite attempts by the Organization of Petroleum Exporting Countries ("OPEC") to maintain its price-setting role, it was unable to restrict supply throughout the year. Although some recovery in prices became apparent in the last quarter of 1986, they are expected to fluctuate around

1986 levels for the next few years. Since June 1, 1985, when oil pricing was deregulated in Canada, prices posted and paid to producers by refiners have reflected world price fluctuations.

As a result of deregulation of natural gas pricing effective November 1, 1986, there was a decline in prices in that sector. It is expected that the softness in gas prices will continue in 1987, although the mid-term view is more optimistic.

Norcen responded to depressed prices in a number of ways including reducing its budgeted capital expenditures for 1986 to \$150 million from \$221 million. A high proportion of the Western Canadian exploration budget was spent in the first quarter of 1986 to qualify for federal and provincial petroleum incentive programs which terminated on March 31. Since then, a number of governmental measures were introduced which improve the economics for finding oil and gas. The federal government announced the termination of the Petroleum Gas Revenue Tax ("PGRT") effective October 1, 1986, and on October 29, 1986, the Government of Alberta introduced a series of reductions to the Crown royalty rates as well as new royalty holidays. Norcen's 1987 capital budget is set at approximately the same as the revised 1986 level.

In response to lower prices and reduced activity in 1986, a corporate reorganization was undertaken. Staff reductions were carried out through early retirements and terminations. Other cost reduction measures, aimed at increasing efficiency and effectiveness, were also implemented.

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### **Revenues and expenses**

#### **Oil & Gas division**

Oil and gas production revenues declined sharply from \$433.9 million in 1985 (an increase of \$19.1 million over 1984) to \$288.8 million in 1986. This was due primarily to the

decline in crude oil prices. In 1986, the average price Norcen received for its crude oil production was \$16.95 per barrel as compared to \$33.03 per barrel in 1985. The decline in prices was partially offset by increases in production volumes of oil and natural gas liquids, from 33,453 barrels per day in 1985 to 38,809 barrels per day in 1986. This increase resulted from new production brought on from exploration successes in Canada, the United States and Australia, and from producing properties acquired from the Gulf Partnership (see Note 7(a) to the Consolidated Financial Statements). In addition, there was a 955 barrel per day increase in production from our synthetic oil royalty interests.

Gas revenues declined sharply as exports to the United States were cut back. As a result of deregulation of the industry November 1, 1986, the price for gas, which had been sold outside Alberta at a border price of \$2.94 per thousand cubic feet, became subject to negotiation between buyer and seller.

While direct production and operating expenses increased only one per cent over 1985, the unit cost of production on crude oil and liquids declined from \$3.91 per barrel to \$3.60 per barrel in 1986 and natural gas from \$0.41 per thousand cubic feet to \$0.38 per thousand cubic feet. This reflects a number of efficiencies introduced by the Company.

Declining oil prices were partially offset by a \$35.5 million reduction in PGRT expense due to lower revenue, lower PGRT rates and the elimination of this tax late in the year. During the period from 1981 to its termination, Norcen paid a total of \$211.8 million of PGRT.

Depletion and depreciation expense, which is based on the average carried cost of the Company's reserves and is tied to production volumes, remains unaffected by price declines. This expense increased \$19.0 million or 26 per cent over 1985. In accordance with the Accounting Guideline issued by the Canadian Institute of Chartered Accountants on Full

Cost Accounting, Norcen recognized a write-off of its non-recoverable foreign exploration costs of \$6.9 million, net of deferred taxes of \$12.6 million. (See Note 6 to the Consolidated Financial Statements.)

The result of all of these influences was a major decline in operating income of the division from \$219.2 million in 1985 to \$68.3 million in 1986.

#### **LPG Marketing and Transmission division**

Prior to 1986, financial results of this division reflect the LPG operations of Norcen's wholly-owned subsidiary, Cigas Products Limited, the industrial gas system and the Company's crude oil gathering and transmission operations. In 1986, division results include a twelve-month contribution from these operations plus a seven-month contribution from the acquisition of the assets and business of Superior Propane Limited on June 2, 1986. Increases in sales revenues from \$141.2 million in 1985 to \$254.6 million in the current year are principally the effect of including Superior's results from the date of acquisition.

The division's results were adversely affected by depressed economic conditions in Western Canada where loss of sales volumes resulted from much lower activity levels in the oil and gas industry, a major user of propane in field operations. These volume losses were partially mitigated by an improvement in sales margins arising from lower propane purchase costs. Total sales volumes of propane increased to 804.6 million litres as compared to 410.6 million litres for 1985 and 249.4 million litres in 1984.

#### **Mineral Resources division**

Revenues and operating income increased in the Mineral Resources division in 1986. Despite a reduction of five per cent in IOC's total sales volumes of ore and pellets compared with



the previous year's levels, iron ore royalty income increased as a result of the new royalty formula introduced on January 1, 1986. Higher dividends from the Company's investment in IOC also contributed to operating income, which rose from \$27.2 million in 1985 to \$36.4 million for 1986.

A review of Norcen's interests in the Obed-Marsh coal project resulted in a write-off of this investment in the third quarter. The operation had been unable to secure long-term contracts at sufficient volumes to profitably utilize the plant. At the same time, a review of Norcen's interests in other non-producing mineral interests resulted in a similar decision. The combined effect, a write-down of \$20.1 million after deferred taxes, has been reflected as an extraordinary item.

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### **Corporate**

Investment and other revenues decreased to \$18.7 million from \$44.8 million in 1985 and \$10.8 million in 1984. This was due to the lower contribution received in 1986 from the Gulf partnership and the nonrecurrence of withdrawals from certain benefit plans in 1985.

Financial expense increased by \$10.5 million over 1985 after a \$3.1 million increase from the previous year. The increase in 1986 resulted from the full-year effect of additional borrowings in 1985. Specifically, these borrowings consisted of \$300 million for investment in the Gulf partnership (which was converted into assets, comprising specific oil and gas properties and the assets and business of Superior Propane Limited), \$120 million for the purchase of Company shares pursuant to two issuer bids and \$63.5 million to finance two oil and gas property acquisitions in the United States. The increased level of debt was somewhat offset by a general decline in interest rates.

Norcen's effective corporate income tax rate fell to 45.4 per cent in 1986 from 50.9 per cent in 1985 and 58.9 per cent in 1984. The reduction in PGRT expense, arising from its elimination, the decline in rates for non-deductible royalties payable to the provincial governments, and an increase in the percentage

of consolidated income from nontaxable foreign sources are the principal factors accounting for the decline.

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### **Capital spending**

Total capital expenditures on oil and gas acquisitions, exploration and development and on LPG marketing and transmission operations before federal and provincial incentives decreased to \$190.7 million from \$371.3 million in 1985 and \$242.8 million in 1984. Not reflected in the expenditures, however, is \$180 million specifically identified for oil and gas properties which were acquired upon withdrawal from the Gulf partnership, and \$122.6 million, paid June 2, 1986, for acquisition of the Superior Propane Limited assets.

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### **Financing activities**

On February 11, 1986, the Company sold 4,000,000 Second Preference Shares at a price of \$25 per share to its underwriters. The net proceeds of this issue, approximately \$97 million, were applied to a \$90 million term bank credit established to finance the substantial issuer bid for Company shares on August 30, 1985. The balance was applied to reduce demand bank credits.

On November 3, 1986, the Company sold \$150 million principal amount of Adjustable Rate Convertible Subordinated Debentures to its underwriters at a price of \$100 per \$100 debenture. The proceeds were used to reduce a \$300 million term bank credit established for investment in the Gulf partnership in 1985.

In 1985, the Company reduced demand bank credits by \$58.9 million. In 1986, capital expenditures and dividend funding requirements, in addition to funds allocated to Superior Propane working capital, the acquisition of preference shares of M.A. Hanna Company on October 2, 1986, and retirement of long-term debt exceeded cash flow generated from operations by \$61.5 million.

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### **Accounting policies**

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 on them. 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, liquefied petroleum gas (LPG) marketing and transmission, and mineral resources. The gas utilities were sold in 1984 and are excluded from the operational segments (Note 5).

Certain prior years' comparative figures have been reclassified to conform with the financial statement presentation adopted for 1986.

### **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 for the respective year. 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, 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 on 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 the relative energy content. Proceeds on sale of properties are credited to asset costs.

The net book value of oil and gas properties, plant and equipment less deferred income taxes is limited to an amount not exceeding the estimated future net revenue from proved reserves plus the cost, net of impairments, of unproved properties less estimated future administrative, financing and income tax costs.

Oil and gas production equipment and related facilities are recorded at cost and depreciated over their estimated useful service life on the straight-line method at various rates, the application of which is equivalent to a composite rate of approximately 7.53% in 1986, (7.65% in 1985; 8.33% in 1984).

#### **LPG Marketing and Transmission**

LPG marketing and transmission plant and equipment are 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 gas revenues**

Deferred gas revenues represent payments received under take-or-pay gas contracts. These amounts are included in revenue as the gas to which the payments relate is delivered at the purchaser's option. Deliveries, which are to be made over a ten year period, commenced November 1984.

#### **Earnings per ordinary share**

Earnings per ordinary share have been calculated using the weighted monthly average number of ordinary shares outstanding during the year (48,877,000 in 1986, 53,296,000 in 1985, 56,205,000 in 1984). Fully diluted earnings per ordinary share assumes the exercise of all rights to acquire ordinary shares which have a dilutive effect.

**Consolidated statement of earnings**  
Years ended December 31, 1986, 1985 and 1984  
(Thousands of Canadian dollars)

	1986	1985	1984
<b>Sales and other revenues</b>			
Oil and Gas	<b>\$288,750</b>	\$433,906	\$414,779
LPG Marketing and Transmission	<b>254,610</b>	141,224	99,652
Mineral Resources	<b>53,256</b>	45,993	44,983
Investment and other revenues	<b>18,694</b>	44,759	10,844
	<b>615,310</b>	665,882	570,258
<b>Costs and expenses</b>			
Production, operations and administration	<b>172,771</b>	125,882	105,824
Product purchases	<b>127,368</b>	84,445	54,044
Production revenue taxes (Note 12)	<b>19,779</b>	54,310	60,023
Depreciation and depletion	<b>109,696</b>	84,106	78,538
Interest on long-term debt	<b>63,615</b>	51,960	50,616
Other financial expense	<b>16,890</b>	18,053	16,302
Income taxes (Note 12)	<b>47,705</b>	125,847	120,757
Minority interests in subsidiaries	<b>613</b>	1,610	1,651
Write-down of non-productive assets (Note 6)	<b>6,905</b>		
	<b>565,342</b>	546,213	487,755
<b>Earnings from continuing operations</b>	<b>49,968</b>	119,669	82,503
<b>Earnings of gas utilities</b> (Note 5)			21,799
<b>Earnings before extraordinary item</b>	<b>49,968</b>	119,669	104,302
<b>Extraordinary item</b> (Note 4)	<b>(20,130)</b>		
<b>Net earnings</b>	<b>\$ 29,838</b>	\$119,669	\$104,302
<b>Dividends on preference shares</b>	<b>\$ 18,881</b>	\$ 11,714	\$ 11,723
<b>Earnings applicable to ordinary shares</b>			
Before extraordinary item	<b>\$ 31,087</b>	\$107,955	\$ 92,579
Including extraordinary item	<b>\$ 10,957</b>	\$107,955	\$ 92,579
<b>Earnings per ordinary share</b>			
Before extraordinary item			
Basic	<b>\$ 0.64</b>	\$ 2.03	\$ 1.65
Fully diluted	<b>\$ 0.63</b>	\$ 1.95	\$ 1.62
Including extraordinary item			
Basic	<b>\$ 0.22</b>	\$ 2.03	\$ 1.65
Fully diluted	<b>\$ 0.22</b>	\$ 1.95	\$ 1.62

**Consolidated balance sheet**As at December 31, 1986 and 1985  
(Thousands of Canadian dollars)

<b>Assets</b>	<b>1986</b>	<b>1985</b>
<b>Current assets</b>		
Cash	\$ 1,953	
Accounts receivable	131,895	\$ 178,964
Inventories	23,451	9,899
Total current assets	157,299	188,863
<b>Investments (Note 7)</b>	392,772	688,500
<b>Properties, plant and equipment (Note 8)</b>	1,590,481	1,297,639
<b>Other assets</b>	15,649	16,332
	<b>\$2,156,201</b>	<b>\$2,191,334</b>
<b>Liabilities</b>		
<b>Current liabilities</b>		
Bank indebtedness	\$	\$ 8,156
Demand bank credits (Note 9)	192,712	121,248
Accounts payable and accrued charges	87,401	126,506
Income and other taxes	12,921	42,656
Current maturities on long-term debt	27,049	19,673
Total current liabilities	320,083	318,239
<b>Long-term debt (Note 10)</b>	604,037	738,488
<b>Deferred gas revenues</b>	45,942	49,969
<b>Deferred income taxes</b>	314,594	302,187
<b>Minority interests in subsidiaries</b>	15,193	14,580
<b>Shareholders' equity</b>		
<b>Capital stock (Note 11)</b>		
Non-convertible preference shares	101,302	1,396
Convertible preference shares	155,074	157,134
Ordinary shares—voting	132,855	132,471
—non-voting	112,103	108,384
<b>Retained earnings (Note 11(c))</b>	355,018	368,486
Total shareholders' equity	856,352	767,871
	<b>\$2,156,201</b>	<b>\$2,191,334</b>

**Consolidated statement of retained earnings**

Years ended December 31, 1986, 1985 and 1984  
(Thousands of Canadian dollars)

	1986	1985	1984
<b>Balance at beginning of year</b>			
As previously reported	\$351,122	\$351,540	\$287,047
Prior period adjustment (Note 2)	17,364	17,364	17,364
As restated	<b>368,486</b>	368,904	304,411
Net earnings	<b>29,838</b>	119,669	104,302
	<b>398,324</b>	488,573	408,713
Dividends			
First preference shares—series A	1	1	1
—series B	82	88	97
Second preference shares—series A	7,173		
Junior preference shares—1983 series	11,625	11,625	11,625
Ordinary shares—voting	13,577	13,920	14,018
—non-voting	10,848	13,013	14,068
Cost of shares purchased for cancellation in excess of average issue price		81,440	
	<b>43,306</b>	120,087	39,809
<b>Balance at end of year</b>	<b>\$355,018</b>	\$368,486	\$368,904

Approved by the Board:



Director



Director

**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, 1986, and 1985 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, 1986. 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, 1986, and 1985 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, 1986, in accordance with generally accepted accounting principles applied on a consistent basis.



Chartered Accountants

Calgary, Canada  
February 6, 1987

**Consolidated statement of changes in financial position**

Years ended December 31, 1986, 1985 and 1984  
(Thousands of Canadian dollars)

	1986	1985	1984
<b>Cash internally generated</b>			
Earnings from continuing operations	\$ 49,968	\$ 119,669	\$ 82,503
Add (deduct) non-cash items:			
Depreciation and depletion	109,696	84,106	78,538
Deferred income taxes	25,615	18,997	35,147
Write-down of non-productive assets	19,470		
Other items	141	6,149	4,416
Dividends from gas utilities			13,939
<b>Cash generated from operations</b>	<b>204,890</b>	228,921	214,543
Proceeds on withdrawal from partnership with Gulf Canada Limited	120,000		
Proceeds from sale of gas utilities		163,000	
Sale of oil and gas properties	8,923	29,796	
Decrease in working capital*			44,881
Deferred gas revenues	(4,027)	(2,277)	6,184
Other		8,141	
<b>Total cash generated</b>	<b>329,786</b>	427,581	265,608
<b>Dividends paid</b>	<b>43,306</b>	38,647	39,809
<b>Net cash available</b>	<b>286,480</b>	388,934	225,799
<b>Cash invested</b>			
Expenditures on properties, plant and equipment, net	159,910	285,572	155,350
Acquisition of the net assets of Superior Propane Limited (Note 3)	143,180		
Investment in partnership with Gulf Canada Limited		300,288	
Investments	7,453	18,905	35,952
Purchase of ordinary shares		120,344	
Increase in working capital*	32,017	33,990	
Other	6,227		4,323
	<b>348,787</b>	759,099	195,625
Excess (deficiency) of cash before external financing	<b>(62,307)</b>	(370,165)	30,174
<b>External financing, net</b>			
Demand bank credits	71,464	(58,863)	83,807
Long-term debt	(100,997)	406,501	(132,164)
Preference and ordinary shares	101,949	2,597	9,278
	<b>72,416</b>	350,235	(39,079)
<b>Increase (decrease) in cash</b>	<b>10,109</b>	(19,930)	(8,905)
<b>Cash position at beginning of year</b>	<b>(8,156)</b>	11,774	20,679
<b>Cash position at end of year</b>	<b>\$ 1,953</b>	\$ (8,156)	\$ 11,774

\* Working capital excludes cash, demand bank credits and cash proceeds from the sale of gas utilities operations.

## Notes to consolidated financial statements

Tabular amounts are in thousands of Canadian dollars except where noted

### 1. Accounting policies

The information on page 30 presents a summary of the principal accounting policies and is an integral

part of these consolidated financial statements.

### 2. Prior period adjustment

In February 1986, the Court of Appeal of Alberta ordered that Norcen is entitled to retain the petroleum compensation component of the royalties received from Suncor for the period from April 1, 1979, until July 7, 1982, amounting to \$17,364,000 net of taxes; the decision allowed the full retention by Suncor of the petroleum compensation component

of the royalty payments for the period from July 8, 1982, to June 1, 1985, when oil pricing was deregulated and petroleum compensation was no longer an issue. The time period for appeal has expired. Accordingly, Norcen has increased retained earnings by \$17,364,000 as an adjustment of prior years' earnings.

### 3. Acquisition of Superior Propane

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 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:

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

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

### 4. Extraordinary item

Norcen has written 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 major component of the write-off is the approximate 6 per cent interest in the Obed-

Marsh coal project in Alberta. This project, which commenced production in August, 1984, has been unable to secure sufficient coal contracts to profitably utilize its plant. The total write-off is \$20,130,000 net of deferred tax reductions of \$13,291,000.

### 5. Sale of gas utilities

Norcen sold to Inter-City Gas Corporation, effective September 30, 1984, all of the common shares of its wholly owned subsidiary, Northern and Central Gas Corporation Limited ("N&C"), for \$163 million cash and \$77 million of 8 per cent first preference shares of Inter-City Gas Corporation. The sale, which closed on January 25, 1985, resulted in the disposal of Norcen's gas utilities operations in Ontario and Manitoba.

Norcen has accounted for its investment in N&C on an equity basis for all periods prior to October 1, 1984, and on the cost basis thereafter. In 1984, Norcen's equity earnings of \$21,799,000 include the gain on sale of gas utilities operations of \$5,152,000 net of deferred income taxes of \$17,522,000.

### 6. Write-down of non-productive assets

In September 1986, the Canadian Institute of Chartered Accountants issued an Accounting Guideline on the application of the full cost method of accounting. The Guideline dictates that country-by-country cost centres are the appropriate basis for the accumulation of costs for depletion and ceiling test purposes, whereas Norcen has used a world-wide basis. Application of this ceiling test at December 31, 1986, in accordance with the Guideline, results in

the write-down of foreign exploration costs, (other than Australian and United States costs for which no write-down is required) which have no supporting reserve base, in the amount of \$6,905,000 net of income taxes of \$12,565,000.

Effective January 1, 1987, Norcen will calculate depletion on a country-by-country basis.

## Notes to consolidated financial statements

Tabular amounts are in thousands of  
Canadian dollars except where noted

### 7. Investments

	December 31	
	1986	1985
<b>At Equity:</b>		
<b>Coleman Collieries Limited</b> shares (i)	\$	\$ 2,215
<b>At Cost:</b>		
<b>Partnership with Gulf Canada</b>		
Partnership interest (Note 7(a))		300,288
<b>M.A. Hanna Company ("Hanna")</b> (Note 7(b))		
Shares—common	146,511	146,511
—preference	28,033	
<b>Inter-City Gas Corporation</b> (Note 5)		
Shares—preference (ii)	77,000	77,000
<b>Brascan Limited</b>		
Shares—preference	65,000	65,000
<b>Iron Ore Company of Canada</b>		
Shares	53,310	53,310
<b>Northern and Central Gas Corporation Limited</b> (Note 5)		
Shares—preference	4,600	6,565
Bonds—first mortgage		20,864
Long-term notes receivable	8,046	10,208
Other investments	10,272	6,539
	<b>\$392,772</b>	<b>\$688,500</b>

Dividend and interest income from investments carried at cost was \$23,256,000 in 1986 (\$24,914,000 in 1985; \$23,149,000 in 1984). Dividend income of \$10,645,000 in 1986 (\$11,050,000 in 1985; \$12,305,000 in 1984) is included in mineral resource revenues. The balance of the dividend and interest income is included in Investment and other revenues.

- (i) In June 1986, pursuant to a court approved Plan of Arrangement, Norcen became the sole shareholder of Coleman Collieries Limited and subsequently the subsidiary was wound up.
- (ii) These shares cannot be sold without the consent of the issuer.

#### (a) Partnership with Gulf Canada

On August 31, 1985, Norcen entered into a partnership arrangement with Gulf Canada Limited ("Gulf"). Pursuant to the partnership agreement, substantially all of Gulf's upstream assets together with the assets of Superior Propane Limited (a wholly-owned subsidiary of Gulf) and Gulf's Edmonton refinery were combined with Norcen's contribution to the partnership of \$300,000,000 cash for which Norcen received a 5.97 per cent interest in the partnership.

Upon withdrawal from the partnership on March 1, 1986, Norcen acquired all or part of the partnership's

interest in five oil and gas producing fields in Alberta and three offshore East Coast areas, and \$120,000,000 in cash.

Included in Investment and other revenues is Norcen's share of partnership profits of \$5,083,000 for the two months ended March 1, 1986, (\$13,956,000 for the four months ended December 31, 1985).

#### (b) Hanna

On October 2, 1986, Hanna completed a convertible exchangeable preference share financing in which Norcen purchased 841,685 shares to maintain its 28.15 per cent interest in Hanna. 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 rights of Norcen to maintain its permitted percentage ownership and to respond to offers by others for Hanna shares under stated conditions.

The quoted market values of Hanna's common and preference shares at December 31, 1986, are \$84,046,000 (\$90,247,000 at December 31, 1985) and \$30,211,000 respectively.



## 8. Properties, plant and equipment

	Oil and Gas	LPG Marketing and Transmission	Mineral Resources	Total
<b>December 31, 1986</b>				
Cost	\$1,807,277	\$ 214,290	\$196,272	\$2,217,839
Accumulated depreciation and depletion	552,351	53,070	21,937	627,358
Net	\$1,254,926	\$ 161,220	\$174,335	\$1,590,481
December 31, 1985				
Cost	\$1,512,647	\$ 86,362	\$233,388	\$1,832,397
Accumulated depreciation and depletion	471,939	43,235	19,584	534,758
Net	\$1,040,708	\$ 43,127	\$213,804	\$1,297,639
During the year, administrative overhead expenditures of \$18,838,000 (\$12,082,000 in 1985; \$13,947,000 in 1984) directly related to exploration and development activities have been capitalized.				

## 9. Demand bank credits

Norcen has the following obligations under established bank lines of credit of \$285,980,000 at December 31, 1986, (\$210,500,000 at December 31, 1985):

	Average % rate of interest at December 31		December 31	
	1986	1985	1986	1985
Commercial paper	8.7	9.1	\$ 55,444	\$ 70,902
Bankers' acceptances	8.8		129,000	
Bank loans—unsecured	9.8	10.0	8,268	27,294
Bank loans—secured		10.0		652
Eurodollar advance (1985—U.S. \$16,000)		8.6		22,400
			\$192,712	\$121,248
Unused lines of credit at period end			\$ 93,268	\$ 89,252

## 10. Long-term debt

	1986	1985
10¼% - 11¼% secured sinking fund notes, payable through 1988	\$ 17,407	\$ 26,400
13¼% sinking fund debentures, payable through 2003	52,525	55,000
Term bank credits, 1988-1994 (i)	269,025	518,800
7.6% subordinated note, 1988-1999	47,300	47,300
12½% - 13¼% debentures, 1990-1993	81,910	82,168
11¼% secured sinking fund debentures, 1992-1996	12,753	24,459
Other	166	4,034
	481,086	758,161
Current maturities on non-convertible long-term debt	27,049	19,673
Total non-convertible long-term debt	454,037	738,488
Adjustable rate convertible subordinated debentures (ii)	150,000	
Total long-term debt	\$604,037	\$738,488

The above balances include long-term debt of \$150,137,000 at December 31, 1986, (\$167,101,000 at December 31, 1985) denominated in United States dollars translated at rates of exchange at the balance sheet date.

Long-term debt maturities and sinking fund requirements for each of the four years subsequent to 1987 are as follows:

1988 - \$53,721,000; 1989 - \$47,493,000;  
1990 - \$69,403,000; 1991 - \$47,493,000.

**Notes to consolidated financial statements**

Tabular amounts are in thousands of Canadian dollars except where noted

(i) Lines of term bank credits, established with three Canadian banks, amounting to \$119,025,000 as at December 31, 1986, (\$128,800,000 at December 31, 1985) provide for semi-annual principal repayments to retire the loans in 1994. Additional lines of term bank credits established on August 30, 1985, with three Canadian banks amounting to \$150,000,000 (\$390,000,000 in 1985) mature August 31, 1987, and may be extended at the

borrower's option into a term loan with semi-annual principal repayments to retire the loan in 1993.

The average annual costs of indebtedness under these lines of term bank credits for 1986, 1985 and 1984 were 9.0 per cent, 9.5 per cent and 11.7 per cent respectively, and the amounts outstanding at December 31, 1986, were:

	1986	1985
Advances	\$	\$100,000
Commercial paper		90,000
Bankers' acceptances	150,000	200,000
Eurodollar advances (U.S. \$86,250; 1985 - U.S. \$92,000)	110,793	116,828
Deferred foreign exchange loss	8,232	11,972
	<b>\$269,025</b>	<b>\$518,800</b>

(ii) 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 cent per annum and are convertible at the holder's option into 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 until December 31, 1991, and thereafter, if Norcen fixes an interest rate of 7.0 per cent per annum, at a conversion price of \$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 per cent of the principal amount plus accrued interest if at least 85 per cent 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.

**11. Capital stock**

**(a) Authorized**

The authorized share capital of the Company consists of (a) 1,300,000 first preference shares, issuable in series, which may be issued for a price or consideration not exceeding in the aggregate the sum of \$132,500,000; (b) an unlimited number of second preference shares (to be automatically redesignated as first preference shares upon such date as the above-mentioned class of 1,300,000 first preference shares is no longer authorized), issuable in series; (c) an unlimited number of junior preference shares, issuable in series; (d) an unlimited number of non-voting ordinary shares; and (e) an unlimited number of voting ordinary shares.

**(b) Issued**

**Nonconvertible preference shares**

The first preference shares, Series A and Series B, carry one vote per share and pay a fixed cumulative

cash dividend of \$1.06 per share and \$1.50 per share respectively. They are redeemable at the Company's option at \$27.50 per share for Series A and \$26.50 per share for Series B.

The 8.12 per cent Second Preference Shares, Series A which were issued February 11, 1986, 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 Second 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.

Tabular amounts are in thousands of Canadian dollars except where noted

	First Preference				Second Preference	
	Series A		Series B		Series A	
	Shares	Amount	Shares	Amount	Shares	Amount
December 31, 1983	910	\$ 23	68,188	\$1,705		
Redeemed	(50)	(1)	(6,464)	(162)		
December 31, 1984	860	22	61,724	1,543		
Redeemed	(16)	(1)	(6,711)	(168)		
December 31, 1985	844	21	55,013	1,375		
Issued for cash					4,000,000	\$100,000
Redeemed			(3,775)	(94)		
<b>December 31, 1986</b>	<b>844</b>	<b>\$ 21</b>	<b>51,238</b>	<b>\$1,281</b>	<b>4,000,000</b>	<b>\$100,000</b>

**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, are non-voting, pay no dividend and each becomes convertible into approximately 1.66 voting ordinary shares and 1.66 non-voting ordinary shares at the rate of 25 per cent of the issue after each of the first four years. The preference shares are automatically redeemed at \$50.00 per share after eight years or earlier in accordance with certain provisions of the plan.

The 7¼ per cent Convertible Junior Preference Shares, 1983 Series were issued on December 1, 1983. These shares are non-voting and pay a fixed cumulative cash dividend. Each is convertible at the option of the holder at any time up to the close of business on December 1, 1990, into approximately

1.28 non-voting ordinary shares. The Convertible Junior Preference Shares, 1983 Series are redeemable on or after December 1, 1986, subject to certain restrictions and without restriction on or after December 1, 1988, at Norcen's option in whole or in part at any time at a price of \$26.00, such price declining by \$0.25 per annum until December 1, 1990, after which they are redeemable at the issue price of \$25.00 per share.

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 becomes convertible into approximately 3.19 non-voting ordinary shares.

	1981 Series		1983 Series		Series B	
	Shares	Amount	Shares	Amount	Shares	Amount
December 31, 1983	85,817	\$4,291	6,000,000	\$147,180		
Issued for cash					113,300	\$5,665
Converted			(100)	(2)		
Redeemed						
December 31, 1984	85,817	4,291	5,999,900	147,178	113,300	5,665
Converted						
Redeemed						
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)
<b>December 31, 1986</b>	<b>71,966</b>	<b>\$3,598</b>	<b>5,999,900</b>	<b>\$147,178</b>	<b>85,950</b>	<b>\$4,298</b>

**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. At the holder's option voting ordinary shares are convertible into non-voting ordinary shares,

on a one-for-one basis, at any time. Non-voting ordinary shares are convertible into voting ordinary shares, on a one-for-one basis, only in certain limited circumstances.

Notes to consolidated financial statements

**Notes to consolidated financial statements**

Tabular amounts are in thousands of Canadian dollars except where noted

	Ordinary Shares			
	Voting		Non-Voting	
	Number of shares	Amount	Number of shares	Amount
December 31, 1983	28,012,335	\$136,380	28,040,302	\$136,835
Issued for cash				
Employee savings and investment plan			180,613	2,851
Incentive stock option plan	25,759		25,759	
Ordinary stock dividends	25,873	463	27,704	462
Exchanged	(392)	(2)	392	2
Converted				
Preference shares - 1983 Series			128	2
December 31, 1984	28,063,575	136,841	28,274,898	140,152
Issued for cash				
Employee savings and investment plan			156,859	2,223
Ordinary stock dividends	13,714	222	21,901	321
Exchanged	(521)	(2)	521	2
Purchased for cancellation	(940,533)	(4,590)	(6,873,920)	(34,314)
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	15,460	226	15,460	226
Ordinary stock dividends	11,441	162	20,383	262
Exchanged	(835)	(4)	835	4
<b>December 31, 1986</b>	<b>27,162,301</b>	<b>\$132,855</b>	<b>21,870,388</b>	<b>\$112,103</b>

**(c) Dividend restrictions**

Covenants respecting certain of Norcen's 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 \$271 million were available for the payment of dividends at December 31, 1986.

**12. Taxes**

Production revenue taxes include the following amounts:

	Year ended December 31		
	1986	1985	1984
Petroleum and gas revenue tax and incremental oil revenue tax	\$12,459	\$47,910	\$54,051
Newfoundland royalty tax	\$ 7,320	\$ 6,400	\$ 5,972

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 46 per cent to earnings from con-

tinuing operations before income taxes, write-down of non-productive assets and minority interests for the following reasons:

	Year ended December 31		
	1986	1985	1984
Earnings from continuing operations before income taxes, write-down of non-productive assets and minority interests	\$105,191	\$247,126	\$204,911
Canadian federal statutory rate of income tax	46.0%	46.0%	46.0%
Computed income tax expense	\$ 48,388	\$113,678	\$ 94,259
Increase (decrease) in income taxes resulting from:			
Non-deductible production revenue taxes	5,731	20,484	24,035
Non-deductible crown payments less federal resource allowance	2,503	2,844	6,288
Provincial income taxes in excess of federal abatement	3,158	5,589	4,759
Non-taxable dividend income	(10,092)	(9,262)	(7,785)
Income tax depletion	(865)	(1,685)	(1,545)
Other items, net	(1,118)	(5,801)	746
Actual income tax expense	\$ 47,705	\$125,847	\$120,757
Effective tax rate	45.4%	50.9%	58.9%

Deferred income taxes result from timing differences in the recognition of income and expenses for income tax and 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.

### 13. Pension plans and other benefits

Norcen has a defined benefit pension plan covering most employees. Current costs are provided for, and funded, based upon actuarial estimates. There are no unfunded liabilities for past service pension benefits.

In 1985, as a result of having surplus funds in several of its employee benefit plans beyond that

necessary to meet its future liability obligations and the requirements of the regulatory authorities, the Company withdrew \$16,939,000 of these surpluses which amount is reflected in Investment and other revenues. At December 31, 1986, the assets of the Company's pension plan substantially exceeded the liabilities of the plan.

### 14. Financial data by business segment

	Year ended December 31		
	1986	1985	1984
<b>Oil and Gas</b>			
Sales and other revenues	\$288,750	\$433,906	\$414,779
Operating costs	109,114	141,788	135,421
Depreciation and depletion (i)	111,296	72,933	70,907
	220,410	214,721	206,328
Operating income	\$ 68,340	\$219,185	\$208,451
<b>LPG Marketing and Transmission</b>			
Sales and other revenues	\$254,610	\$141,224	\$99,652
Operating costs	200,314	110,727	73,202
Depreciation and depletion	11,498	4,518	2,396
	211,812	115,245	75,598
Operating income	\$ 42,798	\$ 25,979	\$ 24,054
<b>Mineral Resources</b>			
Sales and other revenues	\$ 53,256	\$ 45,993	\$ 44,983
Operating costs	10,490	12,122	11,268
Depreciation and depletion	6,372	6,655	5,235
	16,862	18,777	16,503
Operating income	\$ 36,394	\$ 27,216	\$ 28,480

**Notes to consolidated financial statements**

Tabular amounts are in thousands of Canadian dollars except where noted

	Year ended December 31		
	1986	1985	1984
<b>Consolidated total</b>			
Operating income			
Oil and Gas	\$ 68,340	\$ 219,185	\$ 208,451
LPG Marketing and Transmission	42,798	25,979	24,054
Mineral Resources	36,394	27,216	28,480
	147,532	272,380	260,985
Investment and other revenues	18,694	44,759	10,844
	166,226	317,139	271,829
Interest and other financial expense	80,505	70,013	66,918
Income taxes	35,140	125,847	120,757
Minority interests	613	1,610	1,651
	116,258	197,470	189,326
Earnings from continuing operations	49,968	119,669	82,503
Earnings of gas utilities			21,799
Earnings before extraordinary item	49,968	119,669	104,302
Extraordinary item	(20,130)		
Net earnings	\$ 29,838	\$ 119,669	\$ 104,302
<b>Capital expenditures</b>			
Oil and Gas (ii)	\$ 154,406	\$ 263,107	\$ 146,083
LPG Marketing and Transmission	6,650	22,103	9,225
Mineral Resources	(1,146)	362	42
	\$ 159,910	\$ 285,572	\$ 155,350
<b>Identifiable assets</b>			
Oil and Gas	\$1,364,656	\$1,210,555	\$1,048,037
LPG Marketing and Transmission	227,583	70,105	39,989
Mineral Resources	409,316	430,749	441,276
Investments	154,646	479,925	320,610
	\$2,156,201	\$2,191,334	\$1,849,912

(i) In 1986, includes the write-down of non-productive assets of \$19,470,000 (Note 6).

\$29,687,000 in 1986; \$86,071,000 in 1985; and \$87,436,000 in 1984.

(ii) Net of government incentive payments of

**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 earnings from continuing operations as follows:

	Year ended December 31		
	1986	1985	1984
Earnings from continuing operations based on Canadian accounting principles	\$ 49,968	\$119,669	\$82,503
Prior period adjustment regarding the Suncor litigation (i)	17,364		(24,338)
Extraordinary item regarding write-down of mineral resource properties (ii)	(20,130)		
Foreign currency translation adjustment on long-term debt (iii)	4,961	(2,265)	(5,766)
Application of SEC prescribed full cost method net of related deferred income taxes (iv)	(46,551)	1,437	2,024
Amortization of excess cost of minority shares in 1975 reorganization (v)	(641)	(713)	(607)
Amortization of surplus funds withdrawn from employee benefit plans (vi)	771	(6,943)	
Earnings from continuing operations based on United States accounting principles	\$ 5,742	\$111,185	\$53,816
Earnings (loss) from continuing operations per ordinary share			
Canadian	\$ 0.64	\$ 2.03	\$ 1.26
United States	\$ (0.27)	\$ 1.87	\$ 0.75

- (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) Under United States accounting principles, losses from sale or abandonment of properties, plant or equipment used in the business are not extraordinary items.
- (iii) 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 charged to earnings.
- (iv) 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.
- (v) 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.
- (vi) In 1985 Norcen included in income surplus funds withdrawn from its employee benefit plans beyond that necessary to meet its 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		
	1986	1985	1984
Retained earnings based on Canadian accounting principles	<b>\$355,018</b>	\$368,486	\$368,904
Prior period adjustment in 1986 in regard to Suncor litigation		(17,364)	(17,364)
Write-off of unrealized exchange losses on long-term debt	<b>(4,651)</b>	(9,612)	(7,347)
Application of SEC full cost method	<b>(70,391)</b>	(23,840)	(25,277)
Amortization of excess cost of minority shares in 1975 reorganization	<b>(8,840)</b>	(8,199)	(7,486)
Amortization of surplus funds withdrawn from employee benefit plans	<b>(6,172)</b>	(6,943)	
Other (i)	<b>(20,920)</b>	(20,920)	(20,920)
<b>Retained earnings based on United States accounting principles</b>	<b>\$244,044</b>	\$281,608	\$290,510

- (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 the Non-Convertible and Convertible Preference Shares totalling \$256,376,000 in 1986 and \$158,530,000 in 1985 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 \$7,895,800 in 1986 and \$9,956,000 in 1985 would have been reclassified as a deduction from these non-current liabilities.

### Supplemental information

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

#### Quarterly and other financial data

	Quarter				Year
	First	Second	Third	Fourth	
<b>1986</b>					
Sales and other revenues	\$148,502	\$125,787	\$156,836	\$184,185	\$615,310
Net earnings					
Before extraordinary item	\$ 21,002	\$ 7,276	\$ 8,510	\$ 13,180	\$ 49,968
Including extraordinary item	\$ 21,002	\$ 7,276	\$ (11,620)	\$ 13,180	\$ 29,838
Earnings per ordinary share					
Before extraordinary item					
Basic	\$ 0.35	\$ 0.05	\$ 0.07	\$ 0.17	\$ 0.64
Fully diluted	0.35	0.05	0.07	0.16	0.63
Including extraordinary item					
Basic	0.35	0.05	(0.34)	0.16	0.22
Fully diluted	0.35	0.05	(0.34)	0.16	0.22
Dividends paid per ordinary share (i)	\$ 0.125	\$ 0.125	\$ 0.125	\$ 0.125	\$ 0.50
Market price per share (ii)					
Voting ordinary					
High	\$ 16¾	\$ 13⅞	\$ 15	\$ 16½	
Low	12¾	11	13⅞	13⅞	
Non-voting ordinary					
High	16	12⅞	14	15⅞	
Low	11⅞	10	11½	12⅞	

	Quarter				Year
	First	Second	Third	Fourth	
<b>1985</b>					
Sales and other revenues	\$159,957	\$156,119	\$151,343	\$198,463	\$665,882
Net earnings	\$ 28,055	\$ 29,006	\$ 24,692	\$ 37,916	\$119,669
Earnings per ordinary share (iii)					
Basic	\$ 0.45	\$ 0.47	\$ 0.41	\$ 0.72	\$ 2.03
Fully diluted	0.44	0.46	0.41	0.67	1.95
Dividends paid per ordinary share (i)	\$ 0.125	\$ 0.125	\$ 0.125	\$ 0.125	\$ 0.50
Market price per share (ii)					
Voting ordinary					
High	\$ 16½	\$ 17⅞	\$ 16¾	\$ 16¾	
Low	14	14⅞	12¾	14¾	
Non-voting ordinary					
High	15⅞	16	15¾	15⅞	
Low	12⅞	13¼	11⅞	13¼	

(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.

(iii) The sum of quarterly earnings per share for the year does not equal earnings per share for the year due to the effect on average outstanding shares of the purchase for cancellation in 1985 of voting and non-voting ordinary shares.



### Oil and gas information

The following unaudited supplementary information is disclosed in accordance with the provisions of the Financial Accounting Standards Board ("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	
	1986	1985
Properties		
Canada		
proven	\$1,105,700	\$ 901,382
unproven	115,870	99,396
Foreign (i)		
proven	259,030	215,838
unproven	4,102	27,725
Production equipment	305,883	250,570
	<b>1,790,585</b>	<b>1,494,911</b>
Accumulated depreciation, depletion and amortization	<b>547,993</b>	<b>466,911</b>
Capitalized costs	<b>\$1,242,592</b>	<b>\$1,028,000</b>

(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.

Costs capitalized in the year	Canada	Foreign	Total
<b>1986</b>			
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	<b>\$267,360</b>	<b>\$ 28,314</b>	<b>\$295,674</b>
<b>1985</b>			
Property acquisition	\$ 22,694	\$ 74,391	\$ 97,085
Exploration (i) - proven	17,682	20,568	38,250
- unproven	38,732	13,912	52,644
Development (i)	50,257	18,271	68,528
Sale of oil and gas properties	(29,796)		(29,796)
Total capitalized	<b>\$ 99,569</b>	<b>\$127,142</b>	<b>\$226,711</b>
<b>1984</b>			
Property acquisition	\$ 15,869	\$ 6,913	\$ 22,782
Exploration (i) - proven	46,732	28,012	74,744
- unproven	8,783	2,587	11,370
Development (i)	32,678	4,738	37,416
Total capitalized	<b>\$104,062</b>	<b>\$ 42,250</b>	<b>\$146,312</b>

(i) Exploration and development costs in Canada are shown net of government incentive payments earned of \$29,687,000 in 1986, (\$86,071,000 in 1985 and \$87,436,000 in 1984).

### Supplemental information

Tabular amounts are in thousands of  
Canadian dollars except where noted

(unaudited)

Net revenues from producing oil and gas	Canada	Foreign	Total
<b>1986</b>			
Gross revenue	\$317,526	\$27,607	\$345,133
Production expenses (i)	145,166	9,435	154,601
Depreciation, depletion and amortization expense (ii)	72,985	18,709	91,694
	<b>99,375</b>	<b>(537)</b>	<b>98,838</b>
Income tax expense	30,715		30,715
Results of operations from producing activities (excluding corporate overhead and interest costs)	<b>\$ 68,660</b>	<b>\$ (537)</b>	<b>\$ 68,123</b>
<b>1985</b>			
Gross revenue	\$514,604	\$19,557	\$534,161
Production expenses (i)	235,903	3,474	239,377
Depreciation, depletion and amortization expense (ii)	59,114	13,824	72,938
	219,587	2,259	221,846
Income tax expense	104,135		104,135
Results of operations from producing activities (excluding corporate overhead and interest costs)	\$115,452	\$ 2,259	\$117,711
<b>1984</b>			
Gross revenue	\$540,912	\$ 2,910	\$543,822
Production expenses (i)	248,417	898	249,315
Depreciation, depletion and amortization expense (ii)	60,966	4,363	65,329
	231,529	(2,351)	229,178
Income tax expense	129,524		129,524
Results of operations from producing activities (excluding corporate overhead and interest costs)	\$102,005	\$ (2,351)	\$ 99,654

(i) Production expenses include oil and gas operating expenses, production revenue taxes as well as freehold and crown royalty payments of \$75,940,000 in 1986 (\$124,096,000 in 1985; \$153,323,000 in 1984).

(ii) Depletion expense per equivalent barrel was \$3.30, \$2.80, and \$2.51 in 1986, 1985 and 1984, respectively.

Reserves as determined by company engineers are stated on a before royalty basis and include proven remaining reserves together with probable additional reserves reduced by a risk factor, all in accordance with Canadian practice.

The reserve information provided below, as determined by independent reservoir engineers, McDaniel & Associates Consultants Ltd., is provided on a proven reserve basis only after deducting royalty

interests of governments and others. All of Norcen's proven reserves are developed. The reserve quantity information summarizes the changes in quantities of net proven Canadian oil and gas reserves determined using constant prices and costs. Such quantities vary from reserves determined by company engineers primarily due to timing differences in making reserve estimates.

Year ended December 31	1986		1985		1984	
	liquids (000s bbls)	gas (mmcf)	liquids (000s bbls)	gas (mmcf)	liquids (000s bbls)	gas (mmcf)
Beginning of year	66,304	621,144	70,493	652,174	73,139	665,594
Revisions of previous estimates	9,870	25,816	3,138	(9,633)	5,826	7,618
Purchase of reserves in place	7,579	62,446				
Extensions, discoveries and other additions	1,865	7,504	1,429	11,994	1,238	12,341
Production	(10,878)	(32,982)	(8,756)	(33,391)	(9,710)	(33,379)
End of year	<b>74,740</b>	<b>683,928</b>	66,304	621,144	70,493	652,174

Oil and gas liquids at the end of each year include 14.2, 16.3, and 17.3 million barrels in 1986, 1985, and 1984 respectively as Norcen's oil sands royalty interest.

natural gas in the United States. Estimated proved reserves in Australia are 2.2 million net barrels.

In addition to the reserves shown above, Norcen estimates that it has approximately 3.4 million net barrels of proved oil and 55.4 net bcf of proved

**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, 1986 were assumed to be constant, were applied to proven reserves and provision was made for estimated future development expenditures

that will be required to produce the reserves in Canada. Royalty deductions were based on laws, regulations and contracts existing at the end of the fiscal year. The discounted future net cash flows are derived by applying a 10% discount factor, as required by the FASB Statement No. 69 rules, to the future net cash flows.

**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	1986	1985	1984
	(millions of dollars)		
Future cash inflows	\$3,623	\$4,764	\$5,364
Future production costs	1,569	1,841	2,624
Future development costs	67	70	60
Future income tax expense (undiscounted)	766	1,242	1,434
Future net cash flows	\$1,221	\$1,611	\$1,246
Standardized measure of discounted future net cash flows	\$ 673	\$ 894	\$ 694

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

Year ended December 31	1986	1985	1984
	(millions of dollars)		
Sales of oil and gas and value of transfers	\$(170)	\$(279)	\$(295)
Net changes in prices and production costs			
—conventional reserves	(564)	215	47
—oil sands royalty	(92)	49	(36)
Extensions, discoveries and improved recovery, less related costs	21	31	30
Purchase of reserves in place	105		
Development costs incurred during the period	12	10	11
Revisions of previous quantity estimates and other	116	(2)	199
Accretion of discount	89	69	65
Net changes in income taxes	262	107	24
Net increase (decrease)	(221)	200	45
Beginning of year	894	694	649
End of year	\$ 673	\$ 894	\$ 694

**Five year summary**

Year ended December 31

	1986	1985	1984	1983	1982
<b>Income</b>	(millions of dollars)				
<b>Sales and other revenues</b>					
Oil and Gas	\$ 288.8	\$ 433.9	\$ 414.8	\$ 349.1	\$ 294.6
LPG Marketing and Transmission	254.6	141.2	99.6	80.7	74.4
Mineral Resources	53.2	46.0	45.0	20.9	5.3
Investments and other revenues	18.7	44.8	10.8	1.9	
	<b>615.3</b>	<b>665.9</b>	<b>570.2</b>	<b>452.6</b>	<b>374.3</b>
<b>Costs and expenses</b>					
Production, operations and administration	172.8	125.9	105.8	96.1	90.3
Production revenue taxes	19.8	54.3	60.0	49.4	40.5
Product purchases	127.3	84.4	54.0	47.3	41.4
Depreciation and depletion	109.7	84.1	78.5	62.2	44.9
Interest	80.5	70.0	66.9	61.0	57.4
Income taxes	47.7	125.9	120.8	78.1	48.2
Minority taxes	0.6	1.6	1.7	1.6	1.6
Write-down of non-productive assets	6.9				
	<b>565.3</b>	<b>546.2</b>	<b>487.7</b>	<b>395.7</b>	<b>324.3</b>
<b>Earnings from continuing operations</b>	<b>50.0</b>	<b>119.7</b>	<b>82.5</b>	<b>56.9</b>	<b>50.0</b>
<b>Earnings of gas utilities</b>			21.8	21.5	20.8
<b>Earnings before extraordinary item</b>	<b>\$ 50.0</b>	<b>\$ 119.7</b>	<b>\$ 104.3</b>	<b>\$ 78.4</b>	<b>\$ 70.8</b>
<b>Dividends on preference shares</b>	<b>\$ 18.9</b>	<b>\$ 11.7</b>	<b>\$ 11.7</b>	<b>\$ 2.2</b>	<b>\$ 2.1</b>
Earnings applicable to ordinary shares before extraordinary item	<b>\$ 31.1</b>	<b>\$ 108.0</b>	<b>\$ 92.6</b>	<b>\$ 76.2</b>	<b>\$ 68.7</b>
<b>Cash from operations</b>	<b>\$ 204.9</b>	<b>\$ 228.9</b>	<b>\$ 214.5</b>	<b>\$ 181.9</b>	<b>\$ 150.0</b>
<b>Capital expenditures</b>					
Oil and Gas	\$ 154.4	\$ 263.1	\$ 146.1	\$ 125.9	\$ 131.1
LPG Marketing and Transmission	6.6	22.1	9.2	3.7	2.9
Mineral Resources	(1.1)	.4	.1	0.4	27.7
	<b>\$ 159.9</b>	<b>\$ 285.6</b>	<b>\$ 155.4</b>	<b>\$ 130.0</b>	<b>\$ 161.7</b>
<b>Ordinary shares</b>	(millions)				
Average number outstanding	48.9	53.3	56.2	54.7	53.2
Number of shareholders	(thousands)				
voting	13.6	14.9	17.2	18.1	20.9
non-voting	13.5	14.6	17.1	18.7	20.9
Earnings per share	(dollars)				
before extraordinary item	\$ 0.64	\$ 2.03	\$ 1.65	\$ 1.39	\$ 1.29
including extraordinary item	0.22	2.03	1.65	1.39	1.29
Dividends per share	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50
Market price					
High	\$ 16.75	\$ 17.38	\$ 20.00	\$ 20.50	\$ 17.63
Low	10.00	11.88	13.63	14.06	10.88
Close					
voting	16.38	16.63	15.50	17.13	14.56
non-voting	15.13	15.50	14.00	16.13	14.56
<b>Capitalization</b>	(millions of dollars)				
Long term debt (excluding current maturities)	\$ 604.0	\$ 738.5	\$ 335.1	\$ 457.6	\$ 263.0
Minority interests	15.2	14.6	13.2	11.6	7.9
Redeemable preference shares	256.4	158.5	158.7	153.2	38.9
Ordinary shareholders' equity	600.0	609.3	645.9	577.6	493.6
	<b>\$1,475.6</b>	<b>\$1,520.9</b>	<b>\$1,152.9</b>	<b>\$1,200.0</b>	<b>\$ 803.4</b>
<b>Assets</b>					
Properties, plant and equipment	\$1,590.5	\$1,297.6	\$1,125.1	\$1,048.1	\$ 791.5
Total assets	<b>\$2,156.2</b>	<b>\$2,191.3</b>	<b>\$1,849.9</b>	<b>\$1,702.7</b>	<b>\$1,352.0</b>

	1986	1985	1984	1983	1982
<b>Oil and Gas</b>					
Production (before royalties)					
	(thousands of barrels per day)				
Crude oil, synthetic crude oil and natural gas liquids	38.8	33.5	34.7	30.9	27.0
	(millions of cubic feet per day)				
Natural gas	136.2	137.4	130.7	119.3	137.8
	(thousands of long tons)				
Sulphur	25.3	36.0	42.0	34.0	44.0
Reserves (before royalties)					
	(millions of barrels)				
Oil and gas liquids	127.8	117.3	115.8	117.5	114.3
	(billions of cubic feet)				
Natural gas	1,148	1,113	1,086	1,103	1,133
	(thousands of long tons)				
Sulphur	539	391	408	438	492
	(millions of gross acres)				
Oil and gas land holdings	23.1	25.6	27.9	21.5	23.1
	(millions of net acres)				
	4.5	4.8	5.1	4.6	5.4
<b>LPG Marketing and Transmission</b>					
	(millions of litres)				
Propane marketing	804.6	410.6	249.4	246.7	260.3
	(millions of cubic feet per day)				
Gas gathering and transmission sales	43.8	42.1	45.0	44.7	44.8
	(thousands of barrels per day)				
Oil gathering and transmission throughput	81.3	78.6	84.6	81.2	77.1
<b>Mineral Resources (i)</b>					
Iron ore sales					
	(millions of tonnes)				
Pellets	9.5	8.7	6.8	6.3	6.1
Concentrates and other	5.3	6.8	7.5	6.8	7.4
	14.8	15.5	14.3	13.1	13.5
	(number)				
<b>Employees at year-end</b>	<b>2,300</b>	1,200	1,060	1,046	1,135

(i) Iron Ore Company of Canada production. Norcen earns a royalty for each tonne sold.

**Directors**

**Donald D. Barkwell**  
Calgary, Alberta  
Executive Vice-President  
and Chief Operating Officer

**Douglas G. Bassett**<sup>4</sup>  
Toronto, Ontario  
President and  
Chief Executive Officer,  
Baton Broadcasting  
Incorporated

**Edward G. Battle**<sup>1</sup>  
Calgary, Alberta  
President and  
Chief Executive Officer

**Conrad M. Black**<sup>1</sup>  
Toronto, Ontario  
Chairman and  
Chief Executive Officer,  
Argus Corporation Limited

**G. Montegu Black**<sup>1,3</sup>  
Toronto, Ontario  
Chairman and President  
Txibanguan Limited

**Dixon S. Chant**<sup>1,3</sup>  
Toronto, Ontario  
President,  
Argus Corporation Limited

**Jack L. Cockwell**<sup>1</sup>  
Toronto, Ontario  
Executive Vice-President  
and Chief Operating  
Officer,  
Brascan Limited

**E. Jacques Courtois,  
Q.C.**<sup>1</sup>  
Montreal, Quebec  
Partner, Stikeman, Elliott,  
Barristers and Solicitors

**Robert Després, O.C.**<sup>3</sup>  
Quebec City, Quebec  
Counsel  
Raymond, Chabot, Martin  
and Paré

**Robert A. Dunford**<sup>4</sup>  
Toronto, Ontario  
Executive Vice-President  
and Chief Administrative  
Officer,  
Brascan Limited

**Fredrik S. Eaton**<sup>3,4</sup>  
Toronto, Ontario  
Chairman, President and  
Chief Executive Officer,  
The T. Eaton Company  
Limited

**J. Trevor Eyton,  
O.C., Q.C.**<sup>1,3</sup>  
Toronto, Ontario  
Chairman of the Board;  
and President and  
Chief Executive Officer,  
Brascan Limited

**David W. Kerr**<sup>2</sup>  
Toronto, Ontario  
Senior Vice-President,  
Noranda Inc.

**Hon. W. John McKeag**<sup>2,4</sup>  
Winnipeg, Manitoba  
President,  
McKeag Realty Ltd.

**F. David Radler**<sup>2,3</sup>  
Vancouver,  
British Columbia  
President, Sterling  
Newspapers Ltd.

**Clifford A. Rae, Q.C.**<sup>2</sup>  
Calgary, Alberta  
Director of  
various companies

**Martin D. Walker**<sup>4</sup>  
Cleveland, Ohio  
Chairman and Chief  
Executive Officer,  
M.A. Hanna Company

**John R. Yarnell**<sup>2</sup>  
Toronto, Ontario  
President, Yarnell  
Companies Limited

**Officers**

**J. Trevor Eyton**  
Chairman of the Board

**Conrad M. Black**  
Vice-Chairman

**Edward G. Battle**  
President and  
Chief Executive Officer

**Donald D. Barkwell**  
Executive Vice-President  
and Chief Operating Officer

**Barry D. Cochrane**  
Senior Vice-President,  
Exploration and Production

**Paul H. Palmer**  
Senior Vice-President and  
Chief Financial Officer

**William T. Kilbourne**  
Vice-President, Legal  
and Secretary

**Wilfrid A. Loucks**  
Vice-President

**Wayne M. Newhouse**  
Vice-President,  
Production

**Gordon B. Singer**  
Vice-President and  
Comptroller

**Arthur L. Wood**  
Vice-President,  
Engineering and Marketing

**D. Stephen Muir**  
Treasurer

**Beatrice A. Reitzel**  
Assistant Treasurer

**George A. Malysheff**  
Assistant Secretary

<sup>1</sup> Executive Committee

<sup>2</sup> Audit Committee

<sup>3</sup> Compensation  
Committee

<sup>4</sup> Pension Committee

**Offices**

**Registered & executive office**  
715-5th Avenue S.W.  
Calgary, Alberta  
T2P 2X7  
(403) 231-0111

**Annual meeting**

The annual meeting of shareholders will be held in the Calgary Convention Centre, 120-9th Avenue South East, Calgary, Alberta, on Tuesday, April 21, 1987, at 10:00 a.m. local time. Shareholders are encouraged to attend the meeting, but those unable to do so are asked to sign and return the form of proxy mailed with this report.

**Oil and Gas division**

**Norcen Energy Resources Limited<sup>1</sup>**

**Prairie Oil Royalties Company, Ltd.<sup>3,6</sup>**

**Norcen International Ltd.<sup>2,5</sup>**  
715-5th Avenue S.W.  
Calgary, Alberta  
T2P 2X7  
(403) 231-0111

**LPG Marketing and Transmission division**

**Superior Propane Inc.<sup>1,5</sup>**

**Mineral Resources division**

**Labrador Mining and Exploration Company Limited<sup>4,5</sup>**

**Transfer agents and registrars**

**Ordinary shares**

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

Morgan Guaranty Trust Company of New York, New York

**Preference shares**

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

**Stock exchange listings and symbols**

**Toronto and Montreal stock exchanges**

Voting Ordinary Shares: NCN  
Non-Voting Ordinary Shares: NCN.A  
First Preference Shares, Series A: NCN.PR.A  
First Preference Shares, Series B: NCN.PR.B  
Junior Preference Shares, 1983: NCN.PR.C  
Second Preference Shares, Series A: NCN.PR.F

**Luxembourg Stock Exchange**

12¼% Unsecured Debentures, Series A

**Trustees**

10¼% & 11¼% Secured Notes due December 31, 1988  
The Royal Trust Company, Toronto

11¼% Secured Debentures due August 15, 1996  
National Trust Company, Toronto

12¾% Unsecured Debentures, Series A due August 15, 1993  
Guaranty Trust Company of Canada, Toronto

13¼% Unsecured Debentures, Series B due December 19, 2003  
Guaranty Trust Company of Canada, Toronto

13¼% Unsecured Debentures, Series C and 12½% Unsecured Debentures, Series D both due December 31, 1990  
Guaranty Trust Company of Canada, Toronto

Adjustable Rate Convertible Subordinated Debentures, Series A due December 15, 2006  
The Royal Trust Company, Toronto

**Auditors**

Thorne Ernst & Whinney Chartered Accountants

**10-K report**

A copy of the Company's 10-K report filed with the United States Securities and Exchange Commission will be sent to any registered shareholder upon written request to the Company Secretary.

<sup>1</sup> Federal company

<sup>2</sup> Alberta company

<sup>3</sup> Saskatchewan company

<sup>4</sup> Newfoundland company

<sup>5</sup> 100 per cent owned

<sup>6</sup> 74 per cent owned

**Distribution of voting ordinary shares**  
As at December 31, 1986

	Shareholders		Shares	
	Number	Per cent	Number	Per cent
			(thousands)	
Alberta	1,605	11.79	543	2.00
British Columbia	1,438	10.56	450	1.66
Manitoba	674	4.95	167	0.62
New Brunswick	104	0.76	15	0.06
Newfoundland	21	0.15	3	0.01
Northwest Territories	8	0.05	1	0.00
Nova Scotia	327	2.40	91	0.33
Ontario	4,826	35.45	22,197	81.72
Prince Edward Island	30	0.22	5	0.02
Quebec	1,151	8.45	3,222	11.86
Saskatchewan	298	2.19	43	0.16
Yukon	2	0.02	0	0.00
Total Canadian	10,484	76.99	26,737	98.44
U.S.A.	3,015	22.14	401	1.47
Other foreign	118	0.87	24	0.09
Total	13,617	100.00	27,162	100.00

**Distribution of non-voting ordinary shares**  
As at December 31, 1986

	Shareholders		Shares	
	Number	Per cent	Number	Per cent
			(thousands)	
Alberta	1,633	12.08	601	2.75
British Columbia	1,452	10.74	346	1.58
Manitoba	668	4.94	147	0.67
New Brunswick	109	0.81	15	0.06
Newfoundland	19	0.14	2	0.01
Northwest Territories	6	0.04	1	0.00
Nova Scotia	306	2.26	98	0.45
Ontario	4,731	34.99	19,619	89.71
Prince Edward Island	31	0.23	5	0.02
Quebec	1,114	8.24	594	2.73
Saskatchewan	321	2.37	79	0.36
Yukon	2	0.02	0	0.00
Total Canadian	10,392	76.86	21,507	98.34
U.S.A.	3,011	22.27	340	1.55
Other foreign	118	0.87	24	0.11
Total	13,521	100.00	21,871	100.00



Dear Reader:

We value your opinions. Having the benefit of your comments on the 1986 Norcen Annual Report would be of assistance in determining how to make future reports more meaningful and easier to use. We therefore ask you to take a few moments to complete the following reply card and return it to us. Thank you.

Publications Department  
Norcen Energy Resources Limited

1. How much of the 1986 Annual Report did you read?

100%	75%	50%	25%	0
------	-----	-----	-----	---

2. Is the 1986 Annual Report easy to read and understand?

extremely readable	very readable	readable	somewhat difficult	very difficult
5	4	3	2	1

3. Please rate the following sections in the 1986 Annual Report?

	outstanding	good	average	fair	poor
Report to Shareholders	5	4	3	2	1
Oil & Gas Division	5	4	3	2	1
LPG Marketing & Transmission	5	4	3	2	1
Mineral Division	5	4	3	2	1
Management's Discussion	5	4	3	2	1
Financial Statements	5	4	3	2	1
Corporate Information	5	4	3	2	1

4. Please rate the following elements in the 1986 Annual Report:

	outstanding	good	average	fair	poor
Editorial Content	5	4	3	2	1
Financial Content	5	4	3	2	1
Graphic Design	5	4	3	2	1
Photography	5	4	3	2	1
Graphs	5	4	3	2	1
Location of Information	5	4	3	2	1

5. Is there additional information that you think should be added to the Annual Report? Please explain:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. Are you:

- |   |  |
|---|--|
| <input type="checkbox"/> a shareholder of Norcen? | <input type="checkbox"/> a government official?  |
| <input type="checkbox"/> a financial analyst?     | <input type="checkbox"/> a media person?         |
| <input type="checkbox"/> a customer of Norcen?    | <input type="checkbox"/> an employee?            |
| <input type="checkbox"/> a bank employee?         | <input type="checkbox"/> other? (please explain) |

1. How much of the 1986 Annual Report did you read?

100%	75%	50%	25%	0
------	-----	-----	-----	---

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4. Please rate the following elements in the 1986 Annual Report:

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Editorial Content	5	4	3	2	1
Financial Content	5	4	3	2	1
Graphic Design	5	4	3	2	1
Photography	5	4	3	2	1
Graphs	5	4	3	2	1
Location of Information	5	4	3	2	1

5. Is there additional information that you think should be added to the Annual Report? Please explain:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. Are you:

- |   |  |
|---|--|
| <input type="checkbox"/> a shareholder of Norcen? | <input type="checkbox"/> a government official?  |
| <input type="checkbox"/> a financial analyst?     | <input type="checkbox"/> a media person?         |
| <input type="checkbox"/> a customer of Norcen?    | <input type="checkbox"/> an employee?            |
| <input type="checkbox"/> a bank employee?         | <input type="checkbox"/> other? (please explain) |

From:

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Attention: Publications Department  
Norcen Energy Resources Limited  
715 - 5th Avenue S.W.  
Calgary, Alberta  
T2P 2X7

From:

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Attention: Publications Department  
Norcen Energy Resources Limited  
715 - 5th Avenue S.W.  
Calgary, Alberta  
T2P 2X7

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Printing: Ronalds Printing  
Printed in Canada

