Annual Report

alberta Natural Gas

[With respect to our investors, ANG is committed

to enhancing shareholder value. Our competitive

advantage is our employees. We are concerned



for their safety and committed to their training.

As a company, we are aggressive, confident, goal

oriented and environmentally respectful. We will



continue to be career sensitive, to build on our

strengths and to seek new opportunities for synergy and growth.]





The Annual Meeting of Shareholders		
will be held in the Britannia Raom,		
The Westin Hotel, Calgary, Alberta, on April 25, 1991 at 9:30 a.m.	Financial Highlights	01
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form are mailed with this report to all shareholders of record.	Management's Discussion and Analysis	07
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Corporate Profile

ANG is a Calgary-based company operating in three business areas - hydrocarbons, specialty chemicals and magnesium.

Pacific Gas Transmission Company, a U.S. federally regulated pipeline company, owns 49.9% of the issued and outstanding common shares of ANG. In turn, Pacific Gas and Electric Company, a major investor owned utility based in San Francisco, California, owns 100% of Pacific Gas Transmission. The balance of the shares of ANG are held predominantly by Canadian institutions and individuals.

ANG owns and operates a large-diameter natural gas pipeline, which links the systems of NOVA Corporation of Alberta and Pacific Gas Transmission Company, to move natural gas from Alberta to California. ANG has a 49% interest in and operates, Foothills Pipe Lines (South B.C.) Ltd., a pipeline which parallels about one-half of ANG's line in southeastern British Columbia.

The Company also owns and operates a pipeline which transports natural gas for Shell Canada Resources Limited in the Peace River area of Alberta.

Through the Cochrane Extraction Plant Partnership, ANG owns and operates a world-scale natural gas liquids and ethane extraction facility near Cochrane, Alberta, on the western leg of the NOVA pipeline system. A carbon dioxide (CO₂) facility at the plant site refines CO₂ to food grade quality.

ANG is in the business of natural gas and natural gas liquids marketing in Canada and the United States, through ANG Liquids Ltd. and its wholly-owned subsidiaries, and has an interest in NGL storage facilities located at Marysville, Michigan.

Through its subsidiary, ANGUS Chemical Company, ANG is engaged in the production and marketing of nitroparaffins and their derivatives, and the manufacture and marketing of specialty chemicals in the United States and abroad.

ANG holds a 54 percent interest in Magnesium Partnership No. 1, which was formed in 1987, to construct and operate a magnesium production facility near High River, Alberta. ANG also has a 50 percent interest in the Amoco Centre in downtown Calgary.

Introduction This Annual Report provides information to assist in understanding ANG's businesses - the operations and the directions the Company is taking to improve its competitive position. It contains management's discussion and analysis of the financial condition and results of operations. This information is essentially the same as the discussion and analysis contained in the Annual Information Form (AIF), a document prepared pursuant to regulatory guidelines. The AIF is available upon request.

Financial Highlights

For the Years Ended December **31**, **19**90 and **198**9

	1990	1989 (Restoted)
Operating Revenue (\$)	377,405,000	366,150,000
Income (\$)		
from continuing aperations	26,651,000	28,193,000
net income	25,728,000	23,623,000
Earnings Per Average Outstanding Common Shore (\$)		
(from continuing operations)		
first quarter	.21	.29
second quarter	.30	.34
third quarter	.28	.33
fourth quarter	.46	.36
annual		
from continuing operations	1.25	1.32
net income	1.21	1.11
Common Shareholders' Equity (\$)		
totol at year-end	168,528,000	152,652,000
per overage outstanding common share	7.92	7.15
Return on Average Common Shareholders' Equity (%)	16.60	18.93
Dividends Poid Per Common Shore (\$)		
annuol rote	.68	.68
Total Assets (\$)	607,655,000	386,148,000
Capitol Expenditures (\$)	28,111,000	18,003,000
Average Number of Common Shores Outstanding	21,284,242	21,362,119
Number of Shoreholders at Year-End	1,015	1,126

Operating Revenue (Millions of dollors)

377.4	1990
366.2	1989
337.7	1988
318.1	1987
308.4	1986

Income From Continuing Operations (Millions of dollars)

26.7	1990
28.2	1989
26.4	1988
21.9	1987
16.2	1986

Earnings Per Average Outstanding Common Share From Continuing Operations (Dollars)

1.25	î990
1.32	1989
1.31	1988
1.20	1.987
0.89	1.986

It is a great privilege to present my first letter to shareholders as Chief Executive Officer of ANG and I am pleased to report that for the Company, 1990 was a year of moderate growth, with improved operating results. ANG has maintained a strong financial position, which is particularly gratifying considering that the High River magnesium plant required an infusion of funds throughout the year.

1990 was a year of significant change for the Company. We launched new initiatives to keep pace with changing markets and a changing



[Our people have shown that they can meet the challenges, but they will continue our ever changing world. For this reason, training and education are at the top of

business environment. Change was also felt at our corporate office.
In July of 1990, upon the resignation of Mr. D.R. Fenton, I was
appointed Chief Executive Officer and President of ANG, in addition
to my role as Chairman. Also, at that time, Mr. D. McMorland, the
new President and Chief Executive Officer of Alberta and Southern
Gas Co. Ltd., was appointed to the ANG Board of Directors.

1990 Operating Strategies

In 1990, we adopted the following operating strategies to achieve our ongoing objective - to earn and maintain investor confidence and to enhance shareholder value:

- Maintain long-term reliability and security of pipeline and plant operations, while concentrating on safety and efficiency.
- Maintain existing gas markets and seek out new gas markets to strengthen the gas brokerage business.
- Actively investigate and pursue new business ventures in the hydrocarbons business.
- Develop new and expand existing markets in the chemical business through an enhanced commitment to quality and service.
- Attain an operating profit at ANGUS Fine Chemicals Ltd.
- Finalize a strategy regarding the magnesium business.

1990 Results	In general, our strategies were successful and our financial results were on target. Earnings were \$1.21 per share, 10 cents per share more than last year. We achieved our earnings due to the continuing strong performances of both the hydrocarbons business and the chemical business. The hydrocarbons business experienced a very successful year with operating earnings of \$42.1 million, an 11% increase over last year. ANGUS Chemical Company also had a good year, with strong earnings of \$26.8 million.
	The following are some of the highlights of 1990:

Record volnmes of natural gas were exported at Kingsgate, British Columbia, to serve markets in California and the Pacific Northwest. To ensure reliable future service, ANG initiated a compressor replacement program. Older units are being replaced with new energy efficient units.

- The Cochrane Extraction Plant performed beyond expectations and generated products and revenues which have contributed significantly to ANG's 1990 earnings.
- The NGL and natural gas marketing division had an excellent year achieving income of \$5.6 million, an increase of \$2.5 million over 1989 results.
- The Pipeline Expansion Project is forging ahead towards a proposed completion date of November, 1993.
- A business development group was established for the hydrocarbons business to review and direct the development of business opportunities.
- ANGUS Chemical detailed and initiated a European growth strategy. ANGUS is continuing to work with its customers to achieve successful research and development results. Success is highly dependent on its ability to deliver high quality products aud provide top quality service. This requires a thorough understanding of customer needs in order to develop the appropriate products.

to be tested by

our agenda.]

- The fine chemicals facility in Ireland earned a small profit during 1990, which is encouraging. We recognize that this facility is new and is performing in a highly competitive market. We are working to maximize utilization of this plant by producing quality products to our customers' specifications.
- ANG acquired control of the magnesium partnership.
- The only disappointing aspect of 1990 was our inability to achieve our objectives in the magnesium business. Not only did we encounter start-up difficulties, but it was necessary to advance funds for our partner. Although, we now have achieved the production and sale of some high quality magnesium, the commercial viability of this project remains uncertain. We are continuing to evaluate this business, including the additional financial support required to achieve commercial viability.

With respect to the many successes we experienced in 1990, they were due to the efficiency, hard work and dedication of our employees. They seized new opportunities and challenges, and turned them to ANG's advantage. ANG's employees are its competitive edge. The companies with whom we compete have just as many opportunities and face the same difficulties that we do. We are all experiencing the impact of market fluctuations and global change. ANG employees developed and implemented innovative ideas and found new ways to improve the Company's performance.

Our people have shown that they can meet the challenges, but they will continue to be tested by our ever changing world. For this reason, training and education are at the top of our agenda. We are developing a structure which will enable our employees to improve their skills, so they may discover better, more productive ways to approach their jobs.

To succeed in the 1990's, we need to work smarter. Daniel Bell, a well known futurist, is quoted as saying, "information is a transforming resource, knowledge is a strategic resource". We are challenging all of our employees to put this maxim into practice. We must transform data and information into knowledge, to ensure that our decision making is based on the most thorough analysis and the determination to capitalize on opportunities.

· People

This will mean the development of new value added products and processes, as the operating results from the hydrocarbons and chemical businesses have illustrated. It means formalizing progressive, intelligent financing arrangements, as shown in our financial results. This concept of knowledge as a strategic resource is also the motivation behind our ongoing strategic planning exercises. Like all alert companies, we continue to probe our current practices and explore new challenges. Safety and Environment We are proud of our record with respect to safety and environmental compliance and these issues will continue to be of paramount concern to the Company. Our 1990 safety record for the operating areas reflects this commitment. Industry must reduce emissions and wastes to an absolute minimum. To this end, ANG must play a pro-active role. The commitment to this objective is evidenced by new investments to improve our efficiency and environmental performance. We will continue to cooperate with others in industry to find solutions that will improve ANG's performance. Outlook 1991 promises to be a most challenging year. Energy prices will continue to be unstable and there are no signs that exchange rates will work to our advantage. This is a time when our very best efforts will be required to succeed and prosper, and we plan to do just that.

Atway

Norman E. Wagner ' Chairman, President and Chief Executive Officer February 12, 1991

[For ANG, 1990 was a year of

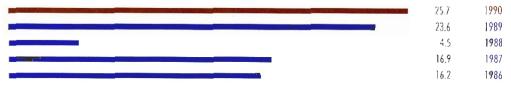
moderate growth, with improved operating earnings. We successfully achieved our earnings due to an exceptionally strong performance by the hydrocarbons business and a significant contribution from the chemical business.]

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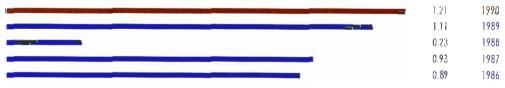
Corporate Overview

Alberta Natural Gas Company Ltd reported a consolidated net income, after discontinued operations, of \$25.7 million for the year ended December 31, 1990. This is a 9% increase over 1989 consolidated net income of \$23.6 million. Similarly, earnings per share rose 9% over 1989, from \$1.11 per share to \$1.21 per share. The 1990 earnings improvement was due to an exceptionally strong performance by the hydrocarbons business and a significant contribution from the chemical business.





Earnings Per Average Outstanding Common Share (Dollars)



The hydrocarbons business achieved excellent results in 1990, and ir is this traditional business base that has allowed the Company to participate in other diversified business opportunities in recent years. Strong marketing profits, due largely to the increase in propane prices during the early and latter parts of 1990, contributed extensively to the improvement in overall corporate results. Management recognizes that hydrocarbon revenue sources are increasingly market driven. Growth and stability, however, are dependent on a solid cost of service base and management is actively pursuing projects, such as the Pipeline Expansion and the Cochrane Extraction Plant Expansion, to achieve these objectives. These opportunities have been addressed and are presented in greater detail, throughout this report.

The chemical business continued to provide a significant contribution to overall corporate results. The nitroparaffins business maintained a solid record of profit performance and management intends to enhance profitability by developing and marketing new products and new applications for existing products through increased research and development efforts. The fine chemicals operation, located in Ireland, realized its first positive contribution at the operating income level in 1990. Management is hopeful that this upward trend in profitability can be sustained due to an expanded customer base and ANGUS Fine Chemicals Ltd.'s growing reputation as a reliable supplier of fine chemical intermediates.

The magnesium business has not achieved the production levels that were anticipated. During 1991, attention will be focused on resolving a final strategy regarding the magnesium business, including evaluating its commercial viability.

(Millions of dollars)	 1990	_	1989 (Restated)	 1988 (Restated)
Income from continuing operations				
Hydrocarbons:*				
Revenue	\$ 223.0	\$	219.6	\$ 205.0
Expenses	 180.9		181.8	 174.8
	 42.1		37.8	 30.2
Chemicol:				
Revenue	153.8		146.5	132.7
Research & Development	4.1		4.1	3.7
Other expenses	 122.7		114.5	100.2
	 27.0		27.9	 28.8
Mognesium:				
Revenue	0.6		—	—
Expenses	 6.4			
	 (5.8)			
Corporate expenses	 8.7		5.4	 4.1
Operating income	54.6		60.3	54.9
Other income	 5.8		1.7	 3.9
	60.4		62.0	58.8
Interest expense	20.7		15.6	16.0
Income taxes	17.1		18.2	16.4
Minority interest	 (4.1)			
	\$ 26.7	\$	28.2	\$ 26.4

* These figures exclude the NGL and natural gas marketing operations of the ConStates group. These results are included on on equity basis in Other Income.

The above chart provides a summory of income from continuing operations.

The following information provides an in-depth analysis of each of the Company's major businesses.

Hydrocarbons Business

In 1990, operating income for the hydrocarbons business increased by 11% to \$42.1 million, indicating continued strength, stability and growth.

Operating income (Millions of dollors)		1990	 1989		1988
Hydrocarbons business					
Natural gos processing	\$	35.3	\$ 32.5	\$	24.0
Pipelines		4.5	4.0		4.4
Notural gas marketing	_	2.3	 1.3		1.8
	\$	42.1	\$ 37.8	Ş	

* These figures exclude the NGL and natural gas marketing operations of the ConStates graup. These results are included on an equity basis in Other Income.

The hydrocarbons business includes ANG's natural gas processing business, its NGL and natural gas marketing business and its pipeline investments in British Columbia and Peace River, Alberta.

Operating Income (Millions of dollors)



Uperating income generated from cost of service controcts continues to provide significant, stable and long term earnings to the hydrocarbons business. This graph details specific cost of service elements in the Natural Gas Processing and Pipeline operations.

Natural Gas Processing The natural gas processing business is conducted at the world-scale Cochrane Extraction Plant. NGL and ethane are extracted from natural gas made available to the Cochrane Plant by its suppliers. The Cochrane Plant is, by far, the largest contributor to operating results within the hydrocarbons business, generating operating income of \$35.3 million during 1990, compared to \$32.5 million during 1989.

The business is driven by two major cost of service based extraction agreements, one for each of NGL and ethane.

The cost of service component of these agreements provides for the full recovery of both current operating expenses and capital facilities investment over the life of the agreements, along with a contracted after tax return on the outstanding investment base. These returns will decline as the investment base is recovered. This decline may eventually be offset by additional facilities investment that may be required to continue to meet the service obligations.

Return and related taxes total \$14.0 million for both 1990 and 1989.



[In 1990, operating income for the hydrocarbons business increased by 11% to indicating continued strength, stability and growth.]

This represents 41% (43% - 1989) of overall operating results for the natural gas processing business for 1990.

The cost of service provisions of the ethane extraction agreement call for the full recovery of the initial capital investment by the end of 1998. Because the Company has a commitment from the Cochrane Plant's major natural gas supplier to the end of 2012, the facility is being depreciated in the accounting records over this longer, useful life estimate. The additional revenue stream that results from this treatment contributed \$5.0 million during 1990 (\$4.9 million - 1989).

Other cost of service related fees contributed \$3.8 million to operating income during 1990 (\$5.0 million - 1989). The variance is the result of a decline in production volumes experienced during 1990, in comparison to those achieved in 1989.

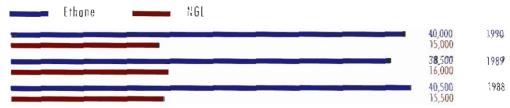
The NGL extraction agreement, in conjunction with one other related profit sharing arrangement with a major supplier, provides for at least a 25% participation in cumulative net marketing profits generated by the sale of propane, butane and condensates, derived from the NGL delivered to the buyer. Marketing profits include the selling prices of rhese products, reduced by Cochrane Plant processing costs and downstream expenses for transportation, fractionation and marketing. Any losses that may be generated by this activity are carried forward to subsequent contract years. Certain marketing losses did accumulate during 1989 and prior years, but due to the substantial increase in propane and related product prices that were experienced at various times during 1990, these losses have been recovered. A \$6.2 million marketing profit contribution was made to operating results during 1990 (\$1.5 million - 1989).

The Company participates in a further profit opportunity through its arrangements with the NGL buyer. By aggressively managing the supply and cost of natural gas made available for processing at the plant, any savings, when compared wirh the price that would orherwise be payable, are shared with the buyer. This arrangement contributed \$5.3 million during 1990 (\$6.3 million - 1989).

A small CO₂ processing facility has been in operation at the Cochrane Plant for a number of years, contributing \$.6 million to operating results for 1990 (\$.3 million - 1989).

Investment in the Cochrane Plant, through ongoing capital maintenance projects, has been small over the past two years. Plans for more significant capital projects are currently under way for 1991, at an estimated cost of approximately \$8.7 million. The majority of this amount will be spent on energy saving modifications, such as the addition of three heat exchangers and the re-wheeling of the compressor. These projects will increase operational flexibility and achieve energy cost savings.

Cochrane Extraction Plant Production (Burrels/Day)



Erhane production averaged 6,336 m³ per day (40,068 Bbls/Day) in 1990, an increase of 2.7% over 1989. NGL production volumes averaged 2,374 m³ per day (14,933 Bbls/Day) in 1990, a decrease of 8.4% over 1989. This decrease is a direct result of a lower propane content in the natural gas stream available to the plant and a lower natural gas throughput. Natural gas volumes processed in 1990 averaged 32.3 10⁶m³ per day (1,147 Mmcf/Day), down 1% from the record volumes processed in 1989.

\$42.1 million,

[Our hydrocarbons business

includes natural gas processing, NGL and natural gas marketing, and pipeline investments in British Columbia and Alberta. The hydrocarbons business achieved excellent results in 1990, and it is this, traditional business base that has allowed ANG to participate in other diversified business

opportunities in recent years.]

There was a marked increase in sales of CO_2 to the food industry, resulting in total shipments of 29,827 tonnes compared to 22,403 tonnes in 1989.

A significant investment opportunity exists for expansion of the Cochrane Plant, due to the anticipated increased gas flows projected for the Alberta - California Pipeline Expansion Project, which is addressed later in this report. Management is considering a plant expansion, at an estimated cost of \$50 - \$75 million, which would provide operational flexibility and incremental capacity, allowing the hydrocarbons business to participate in future market opportunities.

Pipelines The success of the pipeline business depends on providing a safe and reliable transportation service. ANG's pipeline investments are located in southeastern British Columbia and northern Alberta. The B.C. pipeline links the systems of NOVA Corporation of Alberta and Pacific Gas Transmission Company, to move natural gas from Alberta to California. Its facilities and related cost of service contracts are subject to the jurisdiction of the National Energy Board (NEB). The Peace River, Alberta, pipeline is dedicated to the delivery of natural gas for Shell Canada Resources Ltd., to its heavy oil recovery project. The related contract provides a cost of service based tariff to the year 2016.

In addition to the operating facilities described above, the Company has a further pipeline investment through a 49% common share ownership in Foothills Pipe Lines (South B.C.) Ltd. Foothills (South B.C.) owns facilities that parallel about one-half of ANG's own pipeline in southeastern British Columbia. The Company's share of net income is accounted for on an equity basis and is included in Other Income in the Consolidated Statement of Income.

Similar to the cost of service agreements relating to the Cochrane Plant, the pipeline transportation agreements provide for full recovery of operating expenses and capital investment along with an after tax return.

Operating income contributed by pipeline operations amounted to \$4.5 million for 1990, compared to \$4.0 million for 1989. Maintaining and improving this level of contribution requires continuing capital investment. In excess of \$6.6 million was spent on capital improvement projects for 1990 and 1989. The Company has plans, approved by the NEB, for further capital projects amounting to approximately \$29.5 million during 1991 and into 1992. The replacement of two compressor units accounts for the bulk of this capital program. Replacing these units with new gas turbines and axial inlet compressor units will dramatically reduce fuel consumption, station emissions and noise. ANG's concern for the environment is clearly evident in this project, as it is expected to reduce emissions of products of combustion by up to 50% of current emissions. This action is taken in response to the increasing awareness of environmental concerns, which may lead to stricter regulatory standards in the near future.

The most significant opportunity for capital investment in the pipeline business is the Alberta - California Pipeline Expansion Project. ANG views this project as a valuable expansion of one of its primary businesses.

In February, 1990, ANG and Foothills (South B.C.) reached an agreement to co-sponsor the Canadian portion of the project. The project was initiated to meet the growing demand for natural gas in the California and Pacific Northwest markets, and will expand pipeline capacity by over 50% to carry an additional 932 million cubic feet per day. ANG will design, construct and operate the expansion facilities in southeastern British Columbia. The estimated \$186 million Canadian portion of the project will consist of additional pipeline segments that will be owned by Foothills (South B.C.), along with new and modified compression facilities at existing compressor stations that will be owned by ANG. Construction is planned to commence in the fall of 1992 or early 1993, with full volume deliveries in November, 1993. Facilities applications have been filed with both the NEB and the Northern Pipeline Agency, with approval expected in 1991.

The United States portion of the project has been granted most of the required regulatory approvals. In December, 1990, the California Public Utilities Commission approved expansion of the California portion from Malin, Oregon, to Kern River Station in San Joaquin County, California. In early 1991, the Federal Energy Regulatory Commission granted the project preliminary approval.

ANG, working jointly with TransAlta Resources Corporation, has proposed a \$100 million development of a cogeneration plant for the generation of up to 129 megawatts of electricity for domestic and export markets by 1995. The project would rely on the recovery of waste heat, complemented by natural gas, for the generation of electricity and would be located at the Crowsnest compressor station on the British Columbia pipeline. Should the project proceed, the facility would be designed to meet or exceed all environmental regulations, with particular attention to atmospheric emission, surface discharge and noise. The technology required for the project is well proven and efficient.

If ANG and TransAlta are successful in attracting any one of a number of markets being pursued, an electricity sales contract could be in place by the end of 1991. Other ANG owned and operated gas compressor stations along the British Columbia pipeline could be similarly developed with a total potential cogeneration capacity of 400 megawatts.

NGL and Natural Gas Marketing ANG's natural gas marketing business is structured as two divisions: ANG Gas Marketing, focusing on Western Canada, and CanStates Gas Marketing, which primarily targets the eastern North American markets. Natural gas liquids are marketed by CanStates Energy and CanStates Petroleum Marketing.

The NGL and natural gas marketing business made a substantial contribution during 1990, achieving operating income of \$5.6 million, a \$2.5 million increase over 1989. The CanStates operations contributed \$3.3 million of the \$5.6 million and are recorded in the accounting records on an equity basis and are included in Other Income in the Consolidated Income Statement (\$1.8 million - 1989). These improved operating results were due to worldwide fluctuations in energy prices, which caused significant variances between spot and contract NGL prices. Management recognizes that 1990 results reflect the Company's ability to take advantage of temporary market uncertainty, and is cautious of anticipating similar results if and when a measure of price stability prevails.

In January, 1991, ANG acquired 100% ownership of CanStates Energy, CanStates Petroleum Marketing and 66.67% interest in CanStates Gas Marketing. As part of the acquisition, existing contracts with NOVA Corporation of Alberta to supply feedstock to NOVA's petrochemical facilities will be terminated and replaced with new arrangements.

CanStates is aggressively seeking new markets. A majot natural gas export contract, including export authority, has been negotiated and will enable deliveries to commence by November 1, 1991, when required TransCanada PipeLines facilities are in service. Opportunities exist for ANG's marketing divisions to develop a large cross-Canada and export gas marketing business. [Our chemical business consists

of two major operations: the nitroparaffins

business and the fine chemicals business. The

strong results in 1990 demonstrate the chemical

business' ability to contribute significantly to

ANG's operational and strategic objectives.]

Chemical Business

In 1990, the chemical business achieved operating income, after discontinued operations, of \$26.8 million. These strong results demonstrate the chemical business' ability to contribute significantly to ANG's operational and strategic objectives.

Operating income (Millions of dollars)		1990	 1989 (Restated)		1988 (Restated)
Chemical business					
Nitroparaffins	\$	26.8	\$ 29.8	Ş	31.1
Fine Chemicols		0.2	 (1.9)		(2.3)
Operating income from continuing op	erations	27.0	27.9		28.8
Discontinued operations - Siotech		_(0.2)	 (5.7)		(15.5)
- ·	\$	26.8	\$ 22.2	_\$_	13.3

The chemical business consists of two major operations: the nitroparaffins business and the fine chemicals business. A third operation, the ANGUS Biotech business, was discontinued in 1989 and its operating results were reclassified to discontinued operations. These operations make up ANGUS Chemical Company, a 100% owned subsidiary of ANG. ANGUS Chemical is headquartered in Northbrook, Illinois, U.S.A., and its technical offices are located in West Germany, France, England and Singapore.

Nitroparoffins ANGUS Chemical is the worldwide leader in the manufacture and marketing of nitroparaffins and derivative products. The nitroparaffins business has production facilities for the four basic nitroparaffins and their derivatives in Sterlington, Louisiana. Nitroparaffin derivatives are manufactured at Ibbenbueren, West Germany, and custom organic intermediates are manufactured at a plant in Ringaskiddy, Ireland.

The nitroparaffins and derivatives produced by ANGUS Chemical are used in the following applications: pharmaceutical intermediates, printing inks, dispersants for paint pigments, biocides in cutting fluids and personal care products, fuels, specialty explosives, solid propellants, and many more.

With over 50 years of history, ANGUS Chemical has a reliable track record of supplying value added products to a dynamic market. Longterm growth in the nitroparaffins business requires the development of new uses for its products and the development of new products.

Through an increased commitment to research and development, the nitroparaffins business is aggressively pursuing new opportunities. To create a greater emphasis on market driven technical innovation, the nitroparaffins business is currently enhancing product management and market development capabilities. The high value market opportunities are identified and prioritized, allowing management to focus its efforts on research and development expansion. During 1990, approximately 3% of revenues was allocated to research and development. New products, currently under development, are considered promising enough to warrant a planned 30% increase in research and development spending in 1991.



[With over 50 years of history, ANGUS Chemical has a reliable track record of added products to a dynamic market.]

Revenues in the nitroparaffins business declined slightly from 1989 levels, primarily as a result of volume shortfalls during the first half of the year. The decline stemmed from depressed sales volumes, as severe weather affected certain agricultural markets, and reduced purchases from offshore markets. This was partially offset by strong sales during the second half of 1990. Management believes that these volume decreases are temporary fluctuations, not trends.

Profits were also hampered by other temporary conditions during 1990. First, the business was faced with a 50% - 60% increase in the cost of a key feedstock, as the price of propane showed extreme volatility throughout the year. Management anticipates continued volatility. However, as discussed later in this report in the Sensitivities section of the Corporate Liquidity and Capital Resources section, this volatility is counterbalanced by the positive impact of propane prices on the hydrocarbons business. Second, increased manufacturing expenses, associated with the start-up of new facilities in Sterlington, Louisiana, negatively affected operating results.

Capital spending in the nitroparaffins business totalled \$3.5 million during 1990. The major capital expenditures included expansions at both the Sterlington and Ibbenbueren production facilities. An additional \$9.3 million is planned during 1991, for ongoing improvements, environmental upgrades and research and development projects. The nitroparaffins business is highly profitable and management is determined to maintain this level of success. ANGUS Chemical was the sole Western World manufacturer of nitroparaffins until the mid 1980s. Since that time, another U.S. producer has entered the field with approximately 15% of ANGUS Chemical's worldwide capacity. Nitroparaffin products are sold on a performance basis and success is measured by the value added, in end-use, in a wide diversity of markets. Product margins are dependent on valuable applications at the customer level. Increased competition prompted the nitroparaffins business to focus on its most profitable products and markets. The business will continue to enjoy growth in these areas as a result of expanded production capacity and improved marketing capabilities.

Fine Chemicals ANGUS Fine Chemicals Ltd. began operations in 1987, as a grass roots development of ANGUS Chemical. It operates one of the Industry's largest custom chemical facilities at Ringaskiddy, Ireland, and offers a broad range of capabilities to carry out multi-stage batch organic reactions.

The fine chemicals business achieved a positive operating income in 1990, with the introduction of several major new products in the fourth quarter. Management expects the business to achieve further growth and improved profitability in 1991, which will solidify its reputation as a high-quality, United States Government Food and Drug Administration registered, manufacturer.

Capital expenditures in the fine chemicals business in 1990 totalled \$8.2 million, and were primarily allocated to environmental projects, such as the installation of waste treatment facilities. The 1991 budget of \$9.7 million will be used for ongoing improvements, further environmental upgrades and research and development efforts.

Because of the developing nature of the fine chemicals business, its ultimate market share is not currently determinable. Management believes that this operation excels in the areas critical to success in this business, due to the quality of the production facilities and the technical and marketing skills of the employees.

supplying value

Magnesium Business

The magnesium plant has not achieved the production levels that were anticipated. Commissioning the facility has been difficult and expensive. Additional financial support will be required to achieve commercial viability. Until commercial success can be demonstrated, it is not reasonably determinable whether all capital costs will be realizeable through ongoing operations.

Since 1987, ANG has been a partner with Magnesium International (Canada) Ltd. (MICAN) in the construction and operation of a



[It is MAGCAN's objective to improve the competitive position of magnesium, alternative structural materials, by providing a secure high quality magnesium longer term contracts.]

facility near High River, Alberta, to produce and market high purity magnesium and magnesium metal alloys. The facility is operated for the partnership by the Magnesium Company of Canada (MAGCAN). Phase I of the development, with a 12,500 tonne per year design capacity, is in the start-up phase and has produced metal on a limited basis since September, 1990. Throughout 1990, construction and operation of the plant required considerable effort and expenditure.

ANG has been advancing its partner's share of project equity requirements since July, 1990. According to the partnership agreement, these advances are repayable with interest, or may be converted by the contributing partner into additional partnership interest. ANG exercised this conversion right in August, 1990, by converting advances amounting to \$2.8 million, plus accrued interest, into an additional 4% interest in the partnership, giving ANG a 54% interest. Ongoing advances have been made by the Company, on behalf of its partner, amounting to \$13.0 million as of December 31, 1990.

	As a result of the increase in ownership, ANG established control of decision making for the partnership. Acquisition of control has resulted in a full consolidation of the accounts of the partnership in ANG's Consolidated Financial Statements. The effect of this consolidation is summarized in Note 10 to the Consolidated Financial Statements.
relative to supply under	ANG's investment in the project, including advances made on behalf of its partner, amounted to \$58.8 million as of December 31, 1990. ANG's Canadian commercial paper program and internally generated operating cash flow, provided the necessary funding for this project. It is anticipated that any additional funds required in 1991 would be similarly sourced. Finaucing for 75% of the original capital cost of the project was arranged through a bank loan of \$102.8 million. This loan is described in Note 5 ro the Consolidated Financial Statements.
	Considered operational October 1, 1990, the magnesium business reported an operating loss of \$5.8 million on revenue of \$.6 million for the remainder of 1990. Because the facility has not demonstrated its ability to produce at design capacity, the results of future operations are uncertain. It remains uncertain whether MAGCAN can contribute positively to net income.
	Since consolidation, \$8.8 million was spent on capital expenditures at the magnesium production facility in 1990. 1991 capital expenditures are expected to be \$4 to \$9 million.
	The primary markets for magnesium are the diecasting of auto and other components, the production of aluminum alloys and the metal reduction processes used to manufacture titanium and zirconium.
	There are nine producers of magnesium in the Western World. Four companies - Dow Chemical Company (Dow), Norsk Hydro AS (Norsk), Magcorp and Alcoa, represent over 80% of the total capacity. With Norsk's new Becancour, Quebec facility reaching full capacity in 1991, Norsk and Dow will have in excess of 60% of the Western World's supply capability. In 1990, there was an effort on the part of the producers to reduce inventory, resulting in an oversupply on the world market which depressed prices.

21

[Our safety program continues to

be an integral part of day to day operations - at

each business level, and at the corporate level. Our

concern for the environment is evidenced by a

number of initiatives, including ongoing reviews of

operating procedures and practices.]

Safety and the Environment

ANG is committed to occupational health and safety in all areas of its businesses and this is reflected in the Company's safety record. ANG's Safety Program continues to be an integral part of day to day operations - at each business level, and at the corporate level. It includes ongoing safety training for all employees, together with safety inspections and audits throughout the organization. A special effort has been made to involve the operating staff in safety meetings and in the establishment of safety goals.

The Cochrane Extraction Plant was recognized by both the Canadian Gas Processors Association and the Southern Alberta Petro-Chemical Safety Council, for its outstanding record of zero loss time accidents.

ANG shares the public's increasing concern about the environment. This is evidenced by a number of initiatives currently taking place, including ongoing reviews of operating procedures and practices, to reflect current technology and regulations.

In the hydrocarbons business, the compressor replacement program will reduce emissions of products of combustion by up to 50%, improve energy efficiency and reduce noise pollution. Plans for the proposed Cogeneration Plant are being carefully designed to meet or exceed all environmental regulations. Environmental protection has become an integral component of the Pipeline Expansion Project. Wherever possible, the project will follow the existing pipeline right-ofway to minimize environmental impact. The right-of-way, or any other disturbed areas, will be re-vegetated, which is expected to enhance the habitat for some species. All aspects of the project are being designed to meet or exceed all environmental standards.

In the chemical business, ANGUS Chemical's Sterlington, Louisiana plant received a satisfactory environmental rating, which is the highest environmental rating given by the State of Louisiana. The ANGUS Fine Chemical facility in Ireland, continues its significant level of environmental spending. Much of this spending is not in response to regulatory requirements, demonstrating ANGUS Chemical's pro-active commitment to the environment.

At the magnesium plant, environmental monitoring is carried out on a routine basis. Additional investments are being investigated to further reduce emissions at the facility.

Liquidity

Corporate Liquidity and Capital Resources

(Millions of dollars)		1990	 1989	 1988
Current Assets	S	152.0	\$ 120.4	\$ 115.6
Current Liabilities		76.7	106.4	122.2
Working Capital		75.3	14.0	(6.6)

Working capital increased significantly in 1990, to \$75 million. Reclassification of ANG's Canadian commercial paper program to



[On an ongoing basis, management monitors key business drivers, which it economic variables critical to the Company's cash flow and profitability.]

long term debt, as discussed in the Notes to Consolidated Financial Statements, decreased current notes payable, on a net basis, by \$50.6 million. Accounts receivable increased by \$14.3 million during the year, reflecting ANGUS Chemical's strong sales during the final two months of 1990. Inventory levels rose by \$14.6 million during 1990, primarily due to a significant inventory build up of new products in ANGUS Fine Chemicals and a planned increase in the derivatives inventories required to support nitroparaffin sales during early 1991. Accounts payable increased by \$7.5 million in 1990, primarily due to the consolidation of MAGCAN. 1990 funds provided by operations continued at the 1989 level. Investing activity exceeded the 1989 levels, primarily due to the magnesium project requirements.

In 1989, working capital was \$14 million, an increase of \$20.6 million from the previous year. The most significant impact was a \$19.6 million decrease in notes payable. The proceeds of a Deutsche Mark bank loan, as well as operating cash flow, were used to retire this debt. The cash balance rose by approximately \$7.5 million, largely due to the discontinuation of the operating losses at ANGUS Biotech 1nc. Other current assets decreased by \$2.7 million, reflecting lower income taxes receivable, resulting from substantially larger tax deferrals in 1988. Other current liabilities increased by approximately \$3.8 million, impacted by ANGUS Fine Chemicals' increased business activity.

	1989 funds from operations showed marginal improven The most substantial improvement was found in the no capital accounts. Significant cash was required by the cl during 1988, to bring ANGUS Fine Chemicals and AN commercial scale. This requirement was not repeated in the Company required \$23 million to make its initial ec tion to the magnesium partnership. An additional \$3.5 was required in 1989.	n-cash worl hemical bus GUS Biotec 1 1989. In 1 quity contril	king iness h to 988, bu-		
defines as those	Sensitivities On an ongoing basis, management monitors key business drivers, which it defines as those economic variables critical to the Company's cash flow and profitability. By tracking and forecasting these drivers and analyzing the effects of their movements, management is aware of the Company's sensitivity to each of the variables and is posi- tioned to capitalize on opportunities and quickly react to downturns.				
	The commodity prices of magnesium, energy costs, chemical products selling prices, and natural gas prices, are all key drivers within the various businesses. Variables such as interest rates, foreign exchange rates, and propane prices, are analyzed from a corporate viewpoint. Knowledge of the simultaneous effects on cash flow and profits of all the businesses, which result from movements in these variables, is valuable to management as it continually strives to reduce ANG's operational and financial exposures.				
	Corporate Key Drivers Effect on ANG's 1991 Plan Net Incame (Millions of dol	lars Canadian)			
	Correcte Vau Drivero				
	Corporate Key Drivers Propone price/increase of \$.05 U.S. per gollon	Increase/ (De	1.5		
	Interest rate/increase of 100 basis points	\$ \$	(.9)		
	U.S. dollor exchange rate/increase of \$.02 Canadian	Ş	.9		
	U.S. dollor exchange rate/increase of 5% versus Deutsche Mark	S	(.4)		

The obove table illustrates an analysis of corporate sensitivity.



[With respect to the many successes



we experienced in 1990, they were due to the

efficiency, hard work and dedication of our

employees. They seized new opportunities and

challenges, and turned them to ANG's advantage.

ANG's employees are its competitive edge.]

Financing ANG has operations in several countries, substantially increasing the number of variables that affect profitability. The 1980s saw an unprecedented volatility in exchange and interest rates. This trend is expected to continue in the 1990s. The challenge issued to ANG's management is to match the overall corporate funding requirements in the most cost effective way. The Company's response to this challenge is the implementation of a coordinated multi-currency treasury management function. This will allow ANG to obtain maximum benefit from its multi-national resources by matching cash flow surpluses and deficits throughout the organization and negotiating funding by drawing upon the credit and resources of ANG as a whole.

The Company endeavors to reduce both its borrowing cost and its exposure to foreign exchange fluctuations. As part of its long term financial strategy, the Company converted \$70 million of floating rate Canadian debt into fixed and floating U.S. debt in 1990, and borrowed 14 million Deutsche Marks in 1989. The details of these transactions and of the Company's outstanding debt are described in the Notes to Consolidated Financial Statements.

ANG's available bank lines of credit toral \$120 million. These lines support the commercial paper borrowings. Upon drawdown, the unsecured loans bear interest at prevailing market rates.

The Company and its subsidiaries expect to meet their fiscal 1991 cash requirements for working capital, capital expenditures, long-term debt repayments and dividends from internally generated funds, unutilized existing bank lines of credit and unutilized existing shortterm borrowing facilities.

Major capital projects in the future will require additional long-term borrowing. ANG mauagement fully anticipates that there will not be any restraints on its ability to secure future financing on the capital markets. Canada's All-Busing To the shareholders of PROF

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We are committed to supplying you with relev 188

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Report of Management	The accampanying cansolidated financial statements have been prepared by management, which is respansible for the integrity and objectivity of this information. These financial statements, prepared on a historical cost basis, are in accordance with generally accepted accounting principles in Canada and nre also in confarmity with International Accounting Standards with respect to historic cost. Where appropriate, amounts based on estimates and judgements are included. Other financial information included in the Annual Report is cansistent with that in the financial statements.
	Management hos established and maintains appropriate systems of internal control, and policies and pracedures, which are designed to meet its respansibility for reliable and accurate reporting. These systems of control include periodic review by the Company's internal auditors.
	Arthur Andersen & Co., independent auditors appainted by the shareholders, have reviewed the systems of internal control and examined the consolidated financial statements in accordance with generolly accepted auditing standards, to enable them to express an opinion on the fairness of the statements. Their report is included herewith.
	Through its appointed Audit Committee, the Boord of Directors oversees manogement's responsibilities for financial reporting. The Audit Committee meets annually with management, the internol auditors ond the independent auditors to review auditing ond financial matters. Internal ond externol auditors have unrestricted accass to the Audit Committee. The consolidated financial statements have been approved by the Baard of Directors on the recommandation of the Audit Committee.
Auditors' Report	Ta the Sharehalders of Alberta Naturol Gas Company Ltd:
	We have oudited the consolidated balonce sheet of Alberta Natural Gas Compony Ltd as at December 31, 1990 and 1989 and the cansolidated statements of income, retained earnings and changes in cosh flow for the years then ended. These financial stataments are the responsibility af the company's management. Our responsibility is to express an opinion on these financial statements based on our audits.
	We canducted our audits in accardance with generally accepted auditing stondards. Those standards require thot we plan ond perform on audit ta obtain reasonoble assurance whether the financial statements are free of moterial misstatement. An audit includes examining, an a test basis, evidence supporting the amaunts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates mode by management, as well as evoluating the

In our opinion, these consulidated financial statements present fairly, in all material respects, the financial position of the company as at December 31, 1990 and 1989 and the results of its operations and the changes in its cash flow for the years then ended in accordance with generally accepted accounting principles.

Colgory, Alberta, Februory 1, 1991.

overall financial statement presentation.

Arthur Andersen & Co. Chartered Accountants

Consolidated Statement of Income

For the Years Ended December 31, 1990 and 1989

Thousands of dollars	1990			1989 (Restoted)	
Operating Revenue	\$	377,405	\$	366,150	
Operating Expenses:					
Operating and maintenance		223,9 9 8		201,908	
Gas purchases		35,626		47,392	
Selling, administrative and research		43,536		35,134	
Depreciatian and amortization		15,042		15,075	
Property taxes and other		4,611		6,354	
		322,813		305,863	
Operating Income		54,592		60,287	
Interest and Other Income		5,778		1,680	
Income Before Interest Expense		60,370		61,967	
Interest Expense:					
Interest on long term debt		12,854		8,641	
Interest an ather debt		7,869		6,949	
		20,723		15,590	
Income from Continuing Operations Before					
Income Toxes and Minority Interest		39,647		46,377	
Provision for Income Taxes		17,074		18,184	
Minority Interest		4,078			
Income from Continuing Operations		26,651		28,193	
Discontinued Operations		(923)		(4,570)	
Net Income	\$	25,728	\$	23,623	
Eornings Per Share:				•	
From continuing aperatians	\$	1.25	\$	1.32	
Net income	Ş	1.21	Ş	1.11	

See accompanying summary of significant accounting policies and notes.

Consolidated **Balance Sheet**

December 31, 1990 and 1989

Thousands of dollors		1990		1989
Assets				
Current Assets:				
Cosh and interest bearing deposits	\$	15,609	\$	13,611
Accounts receivable		78,065		63,812
Inventories		55,468		40,898
Other		2,889		2,105
Total current assets		152,031		120,426
Investments and Advances		34,309		48,757
Deferred Charges	_	25,175		22,218
Property, Plant and Equipment - Net		396,140		194,747
Total	\$	607,655	\$	386,148
Thausands of dollars		1990		1989
Liabilities & Shareholders' Equity	- ^·			
Current Liobilities				
Notes payable	\$	16,258	\$	66,812
Accounts payable		36,428		28,909
Income taxes payable		16,066		877
Other		7,928		9,769
Total current liabilities		76,680		106,367
Long Term Debt		281,114		89,245
Deferred Income Toxes		41,660		37,884
Minority Interest		39,673		_
Shareholders' Equity:				
21,232,652 common shares (1989 - 21,359,235)		54,419		54,300
Retained earnings		117,364		108,488
Cumulative translation adjustment		(3,255)		(10,136)
Tatal shareholders' equity		168,528	_	152,652
Total	\$	607,655	\$	386,148

Approved by the Board:

J.S. Hondie Hora

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Director

Director

See accompanying summary of significant accounting policies and notes.

Consolidated Statement of Changes in Cash Flow

For the Years Ended Occember 31, 1990 and 1989

Thousands of dollars		1990		1989 (Restated)
Operating Activities:				
Income from continuing operations	Ş	26,651	\$	28,193
Items not affecting cosh:				,
Depreciation and omartization		15,042		15,075
Deferred income taxes		17,296		10,551
Equity cornings and portnership cornings -				
net of dividends ond distributions		(1,650)		822
Minority Interest		(4,078)		_
Other		844		1,095
		54,105		55,736
Discontinued operations		(923)		(4,570)
Chonge in working capital items other than cosh		(22,740)		6,471
Effect of exchange rate changes		361		(1,519)
	\$	30,803	\$	56,118
nvesling Activities:			_	
Net property, plant and equipment expenditures	\$	(28,111)	\$	(18,003)
Investments and advances		(17,900)		(2,007)
Other		(4,065)		(2,593)
······································	\$	(50,076)	\$	(22,603)
inancing Activities:				
Common shares - issued	S	520	\$	520
- purchosed and cancelled		(2,783)		(156)
Reclassification of short term notes payable		90,000		_
Chonge in long term debt		(1,442)		7,700
Dividends		(14,470)		(14,528)
	\$	71,825	\$	(6,464)
ash Provided by (Used in):				
Operating activities	\$	30,803	\$	56,118
Investing activities		(50,076)		(22,603)
Financing activities		71,825		(6,464)
		52,552	_	27,051
Cosh, Interest Bearing Deposits and Notes Payable:				
Beginning of year		(53,201)		(80,252)
End of year	\$	(649)	\$	(53,201)
housands of dollars		1990		1989
alance ot Beginning of the Year			ć	
let Income	\$	108,488	\$	99,549
		25,728		23,623
Purchase and Concellation of Common Shares		134,216		123,172
Dividends		2,382		156
Rolonce at End of the Year	4	14,470	ŕ	14,528
	\$	117,364	\$	108,488

Consolidated Statement of Retained Earnings

Far the Years Ended Occember 31, 1990 and 1989

See accampanying summary of significant accounting policies and nates.

Operations

Alberto Natural Gos Company Ltd owns and operates, through the Cachrane Extractian Plant Partnership, an extractian plant near Cachrane, Alberta, which remaves propone and heavier liquids (NGL) and ethane from the gas stream.

The Campany olsa owns and operates two pipeline transportation facilities:

- a) a 914 mm (36 inch) pipeline, from a point near Coleman, Alberta to Kingsgate, on the British Calumbia-Idaho border, for the transpartation of gas owned by Alberta and Southern Gos Co. Etd. and Westcoast Transmission Company Limited and a number of interruptible shippers, and for the transportation of gas for Foothills Pipe Lines (South B.C.) Ltd. ANG also operates the pipeline facilities owned by Foothills Pipe Lines (South B.C.) Ltd. located in southeastern British Calumbia.
- b) a 324 mm (12 inch) pipeline, from a point near Warrensville, Alberta to an oil sands recovery facility owned by Shell Conada Resources Limited, for the transportation of gas awned by Shell Conado.

The sale agreements with the purchasers of NGL and ethane and the gas transportation contracts and operating agreement with the gas shippers provide for the full recovery of all operating expenses, property and income taxes and capital investment tagether with a return on the unrecovered investment. In addition, ANG is entitled to approximately 25% of the cumulative net marketing profits arising fram the sale of the NGL by the buyer, Amaco Canada Petroleum Campany Ltd.

ANGUS Chemical Company, a U.S. subsidiary, owns and operates nitroparaffins production facilities lacated in the United States and West Germony. The facilities utilize feedstacks derived from natural gas in the production of nitroparaffins and other derivative products that are marketed worldwide. ANGUS Chemical, through its subsidiary, ANGUS Fine Chemicals Ltd., also awns and operates a fine chemicals production facility located in Ireland.

ANG Liquids Ltd., a subsidiary of the Company, is engaged in voriaus aspects of the natural gas and NGL business in bath Canada and the United States. These activities include marketing and NGL fractionating and storage and have been carried out in partnership with subsidiaries of Polysor Limited. Early in January, 1991, the interest in the fractionation partnership was sold and the Polysar interest in the marketing partnerships was acquired at an approximate cost of \$1,300,000.

The Company is a partner with Magnesium International (Canoda) Ltd. (MICAN) in a partnership that awns a magnesium production plant located near High River, Alberta. Magnesium Company of Canada Ltd., on beholf of the partnership, as its agent, is responsible for the construction, financing and operation of the plant. Construction and start-up of the plant was camplete on September 30, 1990. All expenditures to this date were capitalized. Since that time, operating revenue and current expenses have been included in the determination of net incame. It has been more difficult and expensive than monogement initially anticipated to reach initial design copacity and will require the cantinuing financial cammitment of the Company. Until cammercial success can be demonstrated, it is not reasonably determinable whether all capital costs will be realizable through ongoing aperations. The Company's net investment in the partnership as of December 31, 1990 is \$58,767,000, which includes amounts advanced by the Company, an behalf of its partner, as discussed in Note 10.

	interest partnerships as fallows:		
	ANGUS Chemical Company		
	ANG Liquids Ltd		
	ANG Processing Ltd		
	Cachrane Extraction Plant Portnership		
	158149 Canada Inc		
	ANG Morketing Partnership		
	All intercompony accounts and transactions have been eliminated upan consolidation.		
	The investment in Magnesium Partnership No. 1 was accounted for on an equity basis during 1989,		
	at which time the Campany's share of the partnership was 50%.		
nvestments	The equity method of accounting is followed for the following investments:		
	Faathills Pipe Lines (South B.C.) Ltd		
	International Permeation Inc		
	"Amaco Centre" joint venture		
	Magnesium Company of Canada Ltd		
	CariStates Energy Partnership		
	CanStotes Petroleum Marketing Partnership		
	•		
	The Campany's interest in CanStates Energy Partnership and CanStates Petroleum Marketing Partnership will increase to 100% in 1991.		
Regulation	The pipeline facility lacated in British Columbia is subject ta the National Energy Board Act and to		
-	the jurisdictian of the Board created thereby. This Board regulates accounting matters, export of gas, construction and operation of gas pipelines and rates, tolls ond tariffs charged for such operations.		
Fareign Currency Translation	The accounts of U.S. and Irish subsidiaries have been translated into Canadian dallars using the year		
rareign corrency transionon			
	end rate of exchange for oll ossets and liabilities and average rates of exchange for the year for		
	revenues and expenses. The cumulative effects of these foreign currency translotions are included in a seporate component of sharehalders' equity.		
	The accounts of the German subsidiary have been translated into Canadion dollars using the year end		
	rate of exchange for all monetory assets and liabilities and the historical rote of exchange for non-		
	monetary assets and liabilities. Revenues and expenses have been translated at the exchange rates		
	prevailing on the date of the transactians. The cumulative effects of these foreign currency translation		
	are included in the determination of net incame.		

	The Company's Deutsche Mark (DM) denominated long term bank loan is translated into Canadian dollars using the yeor end rate of exchange. The effect af this foreign currency translatian is deferred and amortized aver the term of the bank loan.
	Certain U.S. dollor debt and foreign currency contracts act as on effective hedge ogainst the foreign exchange exposure relating to U.S. operations. Exchonge gains or losses associated with the debt and contracts are included in the separate camponent af shoreholders' equity.
Goodwill	Goodwill arose on the acquisitian of certain subsidiaries, and represents that portian af the purchose price that wos in excess of the foir value af the net assets acquired. Goodwill is included in deferred charges and is being amortized on a straight line basis aver a periad of 30 years.
Property, Plant and Equipment	Property, plant ond equipment is corried at cost.
	An allowance for funds used during construction is capitalized for plant under construction. Any such allowance recorded is included in other income.
	Chemical production facilities ore being depreciated on a straight-line bosis over the estimated useful lives of the assets. Buildings are depreciated over 9 to 25 years and equipment is depreciated over 3 to 15 years.
	The magnesium praduction facilities were deprecioted using o unit of production method for the fourth quarter of 1990. Once the facility reaches initial design capacity a stroight line basis aver o 20 year estimate of the useful life of the assets will be adapted.
	Depreciation is provided on a straight-line basis over the term of the service contracts associated with the pipeline facilities and the term, to 2012, of the supply contracts associated with the Cochrane extraction plant.
Inventories	Chemicol and mognesium product inventories are carried at the lower of cost or morket. The lost-in, first-out (LIFO) method is used to account for chemical product inventary cost. Inventaries af materials ond supplies ore corried at average cost.
Income Taxes	Income taxes are provided an the tax allocation basis for oll incame except liquids extraction income which is subject to cost of service contracts. Income toxes are provided on this source of income only to the extent that they have been included in costs of service under such contracts.
Deferred Charges	Project costs are initially recorded as deferred charges pending evoluation of the projects. Deferred charges opplicable to projects which have been terminated are expensed.

Tabular amounts shown in thausonds of dollars

1. Property, Plant and Equipment

	· · · · · · · · · · · · · · · · · · ·	1990		1989
Natural gas processing	\$	138,817	\$	137,943
Chemical		145,987		128,466
Pipeline tronsport		90,790		86,423
Magnesium		189,238		_
Under Construction		15,612		10,077
		580,444		362,909
Less accumulated depreciation		184,304		168,162
Net property, plant and equipment	\$	396,140	Ş	194,747

2. Investments and Advances

	1990	1989
Foothills Pipe Lines (South B.C.) Ltd.	\$ 6,334	\$ 6,296
Foothills Pipe Lines (Yukon) Ltd. (preferred shares at cost)	2,876	2,981
International Permeation Inc.	112	136
Magnesium Partnership No. 1	_	26,500
ConStates Portnerships	8,980	9,774
Advonces to MICAN	12,950	-
Other	3,057	3,070
	\$ 34,309	\$ 48,757

The Company and Olympia & Yark Developments Ltd. are co-owners of the AMOCO CENTRE affice building located in downtown Calgary. The Company's share of project development expenditures totalled \$48,725,000 as at December 31, 1990. The results of operations have been included in other income, and amount to a loss of \$2,726,000 for 1990 (1989 - loss of \$2,687,000).

Lang term financing was arranged in September, 1990. The Company's share of this liability is \$45,000,000 and security pledged is restricted to its share of the project development. This laan was converted to U.S. dollars in October, 1990 and the Company considers this conversion an effective hedge against foreign exchange exposure related to its investment in U.S. subsidiaries.

3. Deferred Charges

	***	1990	 1989
Unomortized goodwill	S	17,593	\$ 18,266
Unamortized debt expense		445	607
Project costs		7,137	3,345
	\$	25,175	\$ 22,218

4. Shoreholders' Equity

The authorized share capital consists of an unlimited number of preference shares, having such rights and privileges attached to them as the Directors may by resolution determine, ond an unlimited number af camman shores.

In accordance with the provisians of a Senior Management Stock Option Plan, 1,140,000 comman shares were reserved for issuance under the Plan. Optians have been made available an 814,300 shares at prices ranging fram \$7.55 to \$16.77 per share. As of December 31, 1990, substantially all of the aptians have been exercised in the amount of \$8,613,620 (1989 - \$8,093,750). Of these amounts, \$4,006,000 (1989 - \$5,765,000) is included in accounts receivable. A cumulative total of 522,883 (1989 - 365,300) cammon shares have been purchased by the Company at market prices and cancelled in accordance with pravisions of the Plan.

5. Long Term Debt

· · · · · · · · · · · · · · · · · · ·	Yeor Issued	Maturity		1990		1989
Bank Loan 12.55% to 12.67%	1989/90	2000	\$	102,750	\$	-
Debentures 10 1/8% - unsecured	1986	1993		60,000		60,000
Revenue Bands 6 3/4%						
(\$13,008,000 U.S.)	1978/79	2004/08		15,D93		15,061
Deutsche Mark 8ank Loan 7.75%						
(14,000,000 DM)	1989	1996		10,854		9,597
Notes payable				90,000		-
Other	1985/87	1992		4,482		<u>6,384</u>
				283,179		91,042
Less amounts due within ane	year			2,065	_	1,797
			Ş	281,114	S	89,245

The bank loan was used to finance the construction of the magnesium production facility and recourse to the lender is restricted to these facilities. Interest rate exchange agreements are in place for \$75,000,000 of the loan which fixes the interest rate at 11.42% plus stamping fee and come due between 1994 and 1999. Repayments are not due on this loan until 1993, at which time semi-annual payments will commence. The Government of Alberta has provided a loan guarantee in support of this financing.

The Compony's available bank lines of credit total \$120,000,000, which was utilized to support cammercial paper borrowings as of December 31, 1990. Upon drawdown, the loans bear interest at prevailing market rates and are unsecured.

At December 31, 1990, notes payable amaunting ta \$97,000,000 were outstanding pursuant to a Canadian commercial paper program at interest rates which averaged 13.01% during 1990 (1989 - 12.01%) and 12.33% at the end of 1990 (1989 - 12.35%). Of this amount \$90,000,000 has been classified as long term debt as it is not expected to be retired and is supported by committed lang term bank lines of credit.

Interest rate and currency exchange agreements have been made far \$25,000,000 far a period of 3 years commencing May 4, 1990. This transaction acts as an effective hedge against the Compony's investment in U.S. operations. The effective interest rate, for 1990, on short-term borrowing resulting from these interest rate exchange agreements is 11.80%.

Repayment requirements for other long term debt are \$1,780,000 U.S. for 1991 and subsequent years. The debentures, revenue bonds and DM bank loan have no repayment requirements befare moturity.

6. Income Toxes

The provision far income taxes varies from the amount that would be computed by applying current federal and provincial income tax rates far the reasons shown in the following table:

		1990	 1989 (Restoted)
Income from continuing operations	\$	39,647	\$ 46,377
Add (deduct):			
Liquids extraction activities not subject			
ta tax allocation		(10,077)	(8,580)
Equity eornings		(927)	(971)
Amortization of the cost of assets			
ocquired in excess of book volue		2,107	2,255
Minority interest		4,078	
Income subject to tox allocation	S	34,828	\$ 39,081
Expected provision for income taxes at 43.6%			
(1989 - 43.5%)	\$	15,1 85	\$ 17,000
Add (deduct) adjustments to income taxes:			
Monufacturing and processing profits deduction		(39)	(397)
Foreign tax credits		(2,899)	(2,786)
Tax relief ovoilable to foreign subsidiory		(703)	(803)
Losses of foreign subsidiaries for which no			
current benefit is provided		(35)	1,981
Higher effective tax rate of foreign subsidiaries		1,090	719
Withholding taxes on foreign income		_	(738)
Other		534	379
		13,133	15,355
Tax recovered through cost of service controcts		3,941	2,829
Actual pravision for income taxes	\$	17,074	\$ 18,184

Included in income taxes payable in 1990 is \$14,000,000 of current deferred taxes.

The Company anticipates that all foreign earnings will be reinvested by its foreign subsidiories on an angoing basis. As a result, during 1989, management mode the decision to reverse its provision for withholding taxes an foreign income.

7. Segmented Information

a) Finoncial information by industry segment:

1990	Natural Gas Processing	Pipeline Transport	Chemical	Magnesium	Other	Eliminations	Total
Operating revenue	163,139	31,278	153,796	589	41,460	(12,857)	377,405
Depreciation and amortization expense	3,043	1,677	9,832	330	160	-	15,042
Operating income	35,356	4,462	26,991	(5,791)	(6,426)	-	54,592
Identifiable assets	99,157	41,308	211,310	195,519	60,361	-	607,655
Capitol expenditures	621	6,996	11,661	8,833			28,111
1989							
Operoting revenue	153,751	29,904	146,497	-	49,041	(13,043)	366,150
Depreciation and amortization expense	3,029	2,240	9,514	-	292	-	15,075
Operating income	32,549	3,983	27,935	_	(4,180)	_	60,287
Identifiable assets	100,165	35,903	187,223	26,500	36,357	_	386,148
Capital expenditures	1,124	6,685	10,194	_	_	-	18,003

b) Financial information by geographic segment:

1990	Canoda	United States	European Community	Tatal
Operating revenue	223,609	76,503	77,293	377,405
Operating income	27,601	19,920	7,071	54,592
Tatol identifiable assets	386,954	121,607	99,094	607,655
1989				
Operating revenue	219,653	78,397	68,100	366,150
Operating income	32,352	25,254	2,681	60,287
Total identifiable ossets	191,213	118,123	76,812	386,148

8. Related Party Transactions

Alberta and Southern Gas Co. Ltd. and Pacific Gas Transmission Company are whally-awned subsidiaries af Pacific Gas and Electric Company. Pacific Gas Transmissian Campany, in turn, owned 49.4% of the outstanding capital stack of the Company at December 31, 1990.

Significant transactions with these and other related parties were as follows:

	1990	1989
(a) Net charges far personnel and related		
administrative costs from:		
Alberio and Southern	11,210	9,539
Pacific Gas Transmission	277	325
(b) Charges for liquids extraction		
feedstock and fuel purchased		
from Alberta and Southern	63,183	60,790
(c) Net charge for transportation of gas to:		
Alberta and Southern	12,565	11,829
Faothills (South B.C.)	1,865	1,547
(d) Net charges for gas sales to		
Alberta and Sauthern	11,068	12,493
(e) Net charges far gas purchases and		
sales from CanStates Gas Marketing	1,100	1,270
(f) Amounts outstanding at December 31:		
Payable to:		
Alberta and Southern	7,320	7,709
Pacific Gas Transmission	0	49
Receivable from:		
Alberta and Sauthern	2,247	3,662
Foothills (South B.C.)	1,732	569
Management - ANGUS Chemical	0	926

9. Pension Plan

ANG and its subsidiaries maintain defined benefit pensian plans for substantially all af their employees. Informatian relating to the plans, on a consolidated basis, is provided below:

	1990	1989
Actuarial present value of accumulated pension benefits	14,164	11,376
Market value of pension fund assets	11,933	9,032

The majority of the unfunded pension obligation relates to the German operation.

10. Acquisition

In August of 1990 the Campany increased its interest in Magnesium Parlnership No. 1 to 54% from its ariginal 50% participation. To allow the magnesium project to proceed, the Campany has been advancing its partners share of project equity requirements since July, 1990. Pursuant to the partnership agreement, these amounts are repayable with interest. As well, the contributing partner has the right to convert these advances, including interest accrued, into additional partnership interest. The Campany exercised this right in August, 1990 by converting advances, amounting to \$2,750,000 plus accrued interest, into an additional 4% interest in the partnership. Ongoing advances have been made by the Campany, an behalf of its partner, amounting to \$12,950,000 at December 31, 1990 and have been recorded as an advance.

The accounts of Magnesium Portnership No. 1, at date of acquisitian of control, are summarized as follows:

Cash and working capital	\$ 646
Property, plant and equipment	180,404
Long-term debt	(102,750)
	\$ 78,300
Net Equity	
Alberto Natural Gas Campany Ltd	\$ 39,150
MICAN (including advances made by ANG)	39,150
	\$ 78,300

11. Discontinued Operations

In December, 1988, the decision was made to curtail the operation of the erythromycin production facility lacated in Colifornia. The plant was reduced to a pilot phase which concentrated on a process development effort. During the first quarter of 1989, the process development effort was abondaned ond in the second quarter of 1990 the facility was sold. Net disposal proceeds, revenues and expenses associated with this facility are included os discontinued operations and amount to income of \$713,000, net of tax of \$367,000 for 1990 and a lass of \$3,397,000, net of tax of \$2,263,000 for 1989. All 1989 amounts, including those recarded as an extraordinary item in 1989 have been reclassified to Discontinued Operations.

Late in 1990, the Company made the decision to sell its 24% interest in the Marysville Fractionation Partnership. The partnership interest was sold in January 1991. Net disposal proceeds and all equity lasses have been recarded as discontinued aperations and amaunt to a loss of \$1,636,000, net of tax of \$843,000, for 1990 and a loss of \$398,000, net of tax of \$205,000, for 1989. All 1989 amounts have been reclossified to Discontinued Operations.

During 1989, International Permeation Inc. (IPI) made the decision to write off its investment in deferred research and development expenditures due to the continuing economic uncertainty surrounding the markets for its products. As a result, the Company wrote down its investment in IPI in the amount of \$775,000. This amount was recorded as an extraordinary item in 1989 and has been reclassified to Discontinued Operations for 1990. Alberta Natural Gas

Company Ltd

Thousands of dollors, except for common share amou	Ints	1990		1989		1988	 1987	 1986
inancial								
Operating Revenue	\$	377,405	\$	366,150	\$	337,706	\$ 318,060	\$ 308,454
Operating Income		54,592		60,287		54,905	48,947	38,022
Income from continuing operations		26,651		28,193		26,356	21,912	16,247
Net income		25,728		23,623		4,511	 16,906	 16,247
Total Assets	\$	607,655	- and the second se	386,148		376,790	386,527	 360,283
Capitalization								
Short-term debt	\$	16,258		66,812		86,382	92,363	16,343
Long-term debt (including current portion)		283,179		91,042		83,921	95,612	95,395
Minority interest		39,673		-		-	-	50,156
Deferred income taxes		41,660		37,884		27,309	25,235	31,317
Common equity		168,528		152,652		145,211	134,332	128,977
Totol Copitolization	\$	549,298		348,390		342,823	 347,542	 322,188
Funds Flow Data								
From operations	\$	54,105		55,736		55,696	35,392	35,887
Spending on plant, property and equipment	\$	28,111		18,003		14,484	40,127	43,722
Capital issued - long-term debt	\$	88,558		7,700		(3,803)	(2,361)	60,495
- cammon equity	\$	(2,263)		364		35,023	408	(273)
Cividends paid	\$	14,470		14,528		13,993	 12,419	 11,653
Cammon Share Statistics								
Earnings per average outstanding								
common share								
- from continuing operations	\$	1.25		1.32		1.31	1.20	0.89
- net incame	\$	1.21		1.11		0.23	0.93	0.89
Funds generated from operations								
per average outstanding common share	\$	2.54		2.61		2.77	1.94	1.97
Dividends paid per share	\$	0.68		0.68		0.68	0.68	0.64
Outstanding - yeor end (thousands)		21,233		21,359		21,332	18,242	18,205
- average (thousonds)		21,284		21,362		20,084	18,263	18,211
Comman equity per share at year end	Ş	7.94		7.15		6.81	7.36	7.08
Market prices (TSE) - high	\$	19.50		19.13		16.25	16.00	16.00
- low	\$	11.50		14.25		12.87	10.75	11.00
- close	\$	12.88		19.00		14,50	 13.00	 13.37
Ratias								
Cammon sharehalder								
Return on average common equity		16.60%		18.93%	i	18.86%	16.64%	12.82%
Return on average copital employed		5.94%		8.16%	:	7.64%	6.54%	5.21%
Dividend payout		54.2 9 %		51.53%	, ,	53.09%	56.68%	71.72%
Dividend yield (yeor-end morket price)		5.28%		3.58%)	4.69%	 5.23%	 4.79%
Capital								
Debt to common equity		1.8:1		1.0:1		1.2:1	1.4:1	0.9:1
Interest coverage (x)							3.09	5.30

	1985		1984		1983		1982		1981
Ş	372,806	\$	309,201	\$	290,257	\$	214,618	\$	130,904
Ĵ	54,345	Ş	52,661	ç	48,251	ç	29,597	Ŷ	22,239
	24,968		24,178		22,779		16,004		18,800
	24,968		24,178		22,779		16,004		18,800
	340,183		301,044		279,223		262,363		128,385
	56,774		45,787		54,687		69,102		13,083
	35,961		31,979		30,546		31,374		17,755
	47,437		39,917		32,164		28,596		-
	36,569		36,882		40,116		34,521		23,209
	124,584		107,549		90,635		72,282		65,171
	301,325		262,114		248,148		235,875		119,218
	AE ODT		42 1 50		46,629		36,285		26,016
	45,8D5 27,801		43,158 10,243		13,875		40,982		20,010
	3,447		388		(2,373)		(2,373)		(2,373)
	3,447 (510)		276		2,054		(2,373)		(2,073)
	10,911		10,234		7,932		7,873		5,964
	}.37		1.32		1.27		0.89		1.05
	1.37		1.32		1.27		0.89		1.05
	2.52		2.36		2.59		2.03		1.45
	0.60		0.56		0.44		0.44		0.33
	18,223		18,236		18,163		17,892		17,892
	18,174		18,257		17,983		17,892		17,892
	6.84		5.90		4.99		4.04		3.64
	16.25		14.50		9.67		9.17		10.33
	12.75		8.00		7.25		7.08		6.33
	15.87		13.75		8.67		7.50		9.17
	21.51%		24.40%		27.96%		23.29%		32.00%
	8.86%		9.48%		9.41%		9.01%		17.72%
	43.70%		42.33%		34.82%		49.19%		31.72%
	3.78%		4.07%		5.07%		5.87%		3.60%
	0.7:1		0.7:1		0.9:1		1.4:1		0.5:1
	8.92		7.32		5.98		4.71		12.71

Notes:

Accounts of Magnesium Portnership No. 1 have been consolidated since August, 1990.

Certain comparable figures for prior years have been reclassified to conform with the financial statement presentation adopted for 1990. Prior to 1989, oll extraordinary items have been reclassified os discantinued aperations.

1988 earnings per share figures reflect the effect of the May, 1988 Rights Offering.

Share informatian has been adjusted to give retraactive effect to the three-for-one stock split on May 18, 1984.

Accounts of ANGUS Chemical Company have been consolidated since July, 1982.

Clasing price - Valuation Date, December 22, 1971 - \$1.33.

Directors and Officers

Directors H. Baath, ³

Calgary, Alberta Consultant Farmer Chairman of the Board and Chief Executive Officer of the Campony and of Alberta and Southern Gas Co. Ltd.

R.A. Clarke San Francisco, California Chairman af the Baard and Chief Executive Officer, Pacific Gas and Electric Company

J.E. Goudie, ^{1,3} Calgary, Alberta Chairman of the Board, Alberta and Sauthern Gas Ca. Ltd.

D.C. Lowe, ² Mantreal, Quebec Deputy-Chairman Bambardier Inc.

G.A. Maneatis, ³ San Francisco, California President Pacific Gas and Electric Company J.R. McLeod, ^{2,3} San Francisco, California Executive Vice President, Pacific Gas and Electric Company

D. McMarland Calgary, Alberta President and Chief Executive Officer Alberta and Southern Gas Co. Ltd.

R.J. Richardson, ^{1,2,3} Mantreal, Quebec Management Cansultant

S.T. Skinner San Francisca, Califarnia Vice Chairman of the Board, Pacific Gas and Electric Company

J.A. Sproul, 1 San Francisca, California Consultant Farmer Chairman of the Board Pacific Gas Transmissian Company

N.E. Wagner, ³ Calgary, Alberta Chairman, President and Chief Executive Officer of the Campany

Corporate Office East Tawer, Essa Plaza 2400, 425 First Street S.W. Calgary, Alberta T2P 3L8 (403) 260-900D

Stock Exchange Listings Cammon shares are listed far trading on the Alberta, Mantreal, Toranta and Vancouver Stack exchanges, and trade under the symbol ANG. Transfer Agent and Registrar (Capital Stock) Montreal Trust Company, Calgary, Mantreal, Regina, Toronto, Vancouver, Winnipeg

(10% % Debentures) Rayal Trust, Calgary and Taronto; London, England

Direct Deposit Service

Shareholders of ANG may elect to have their dividends deposited directly into the bank account of their chaice by advising Mantreal Trust Campany.

Officers

N.E. Wagner Chairman, President and Chief Executive Officer

D. McMarland Senior Vice President

W.J. Demcoe Senior Vice President Finance and Carporate Services

E.W. Mycholuk Senior Vice President

D.A. Sharp Seniar Vice President and General Manager Hydrocarbons Business Unit

F.G. Homer Vice President and Secretary

1. Member of the Audit Committee

- 2. Member of the Compensation Committee
- 3. Director of ANGUS Chemical Campany

Significant Subsidiary Companies ANG Liquids Ltd. Calgary, Alberta

CanStates Holdings, Inc. Calgary, Alberta

ANGUS Chemical Campany Northbrook, Illinois R.E. Secrist, Chairman and Chief Executive Officer

Auditors

Arthur Andersen & Co. Chortered Accountants Colgory, Alberto

Notice of change of address should be sent to the Transfer Agent.





Alberta Natural Gas Company Ltd 1990 Annual Report

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