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Lyondell Chemical Company
2002 Annual Report

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Our Profile.

LYONDELL CHEMICAL COMPANY IS A MAJOR GLOBAL ENTERPRISE SPECIALIZING IN THE production of basic chemicals and derivatives that are the building blocks for products we use every day, such as clothing, food packaging, construction and home building materials, household furnishings and automobile parts.

With approximately 7,750 employees worldwide and more than \$12 billion in assets under management, the enterprise includes Lyondell's Intermediate Chemicals & Derivatives segment and joint ventures Equistar Chemicals, LP, and LYONDELL-CITGO Refining LP. The joint ventures are reported as equity investments in Lyondell's consolidated financial statements.

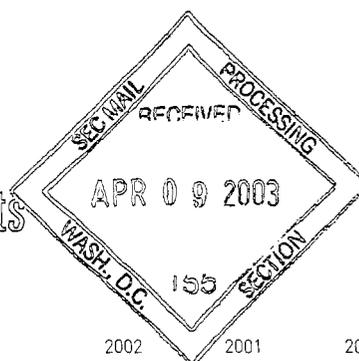
This annual report emphasizes the many ways, despite the protracted trough in the chemical industry and continued economic downturn, Lyondell strengthened its portfolio and operations in 2002 by focusing on the elements that were within our control — financial responsibility, operational excellence and the quality and capability of our people.

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Responsible Care®
Good Chemistry at Work

Highlights of Consolidated Financial Statements



Millions of dollars, except per share data	2002	2001	2000
Sales and other revenues	\$ 3,262	\$ 3,193	\$ 4,003
Operating income	174	112	929
Income from equity investments	14	40	199
Net income (loss) ^(a)	(148)	(150)	437
Earnings (loss) per share - fully diluted ^(a)	(1.10)	(1.28)	3.71
Dividends per share	.90	.90	.90
Cash flow from operations	289	199	61
Capital expenditures ^(b)	22	68	104
Depreciation and amortization	244	254	261

^(a) The 2002 net loss, 2001 net loss and the 2000 net income include after-tax extraordinary losses on early extinguishment of debt of \$15 million, or \$.11 per share, \$5 million, or \$.04 per share, and \$33 million, or \$.28 per share, respectively. In addition, net income for 2000 included an after-tax gain on asset sales of \$400 million, or \$3.40 per share.

^(b) In addition, Lyondell made contributions of \$64 million and \$119 million to PO-11 and U.S. PO joint ventures in 2002 and 2001, respectively.

2002 Selected Financial Data for Lyondell and its Venture Companies

Millions of dollars	Lyondell Chemical Company	JOINT VENTURES			Lyondell and Proportionate Share of Equity Investments ^(c)
		Equistar ^(a) 100%	LYONDELL- CITGO Refining ^(b) 100%	Lyondell Methanol ^(d) 100%	
Sales and other revenues	\$ 3,262	\$ 5,537	\$ 3,392	\$ 36	\$ 8,166
Cost of sales	2,898	5,388	3,093	38	7,563
Selling, general and administrative and R&D expenses	190	193	53	3	321
Depreciation and amortization	244	298	116	1	468
Interest expense, net	373	204	32	-	497
Operating income (loss) ^(e)	174	(44)	246	(5)	282
Net income (loss) ^(f)	(148)	(1,299)	213	(5)	(148)
Capital expenditures ^(g)	22	118	65	-	133
Number of employees	3,350	3,400	1,000	-	-

^(a) Lyondell had a 41% interest in Equistar through August 22, 2002 and 70.5% thereafter.

^(b) Lyondell's interest is 58.75%.

^(c) Lyondell had a 75% interest in Lyondell Methanol Company, L.P., through April 30, 2002 and 100% thereafter.

^(d) This column reflects Lyondell's 100%-owned operations and its pro rata share of each joint venture's operations and is not a presentation in accordance with generally accepted accounting principles.

^(e) For Lyondell, this excludes income from equity investments.

^(f) The net loss for Lyondell and net income for LCR include after-tax extraordinary losses on early extinguishment of debt of \$15 million and \$1 million, respectively. The net loss for Equistar includes the cumulative affect of an accounting change of \$1.1 billion for the write-off of goodwill.

^(g) In addition, Lyondell made contributions of \$64 million to PO-11 and U.S. PO joint ventures in 2002.

To Our Stakeholders

A PROLONGED GLOBAL ECONOMIC DOWNTURN, COMBINED WITH RAPIDLY INCREASING RAW material and energy costs, continued to limit profitability for the chemical industry in 2002.

While these factors impacted Lyondell's financial results for the year, we made progress in a number of important areas by focusing on those elements that were within our control: financial responsibility, operational excellence and the quality and capability of our people. The skill of our employees and their dedication to superior performance enabled us to control costs and generate significant cash from operations during 2002. Year-over-year operational improvements, coupled with our financing efforts, have enabled us to maintain sufficient liquidity to respond confidently to the uncertainties of the global market. Lyondell is positioned to emerge as a lower cost, even more efficient producer as the inevitable upturn occurs.

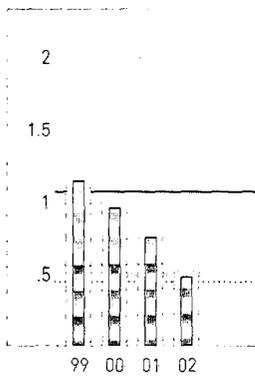
Over the past five years, we have created a global enterprise of strategically integrated businesses generating more than \$12 billion in sales. Today we are one of the world's leading producers of ethylene, propylene, propylene oxide, butanediol and polyethylene — essential chemical and plastic building blocks for automobiles, housing and consumer products that people need and use every day.

In building this balanced portfolio of businesses, we have also developed an outstanding, international workforce of talented people with diverse business and industry experience. They are skilled, hard-working and committed to taking quick action to deal with the challenges and capture the opportunities of a rapidly changing marketplace.

In 2002, we made significant progress toward both short- and long-term goals as our continued commitment to operational excellence yielded important results. For the fourth consecutive year, we saw improvements in safety, environmental performance, reliability and quality across the enterprise — improvements that benefit our bottom line by minimizing costly downtime and expenditures for mitigation and repairs.

We continued to improve efficiency across our expanded enterprise by reducing spending throughout the organization and reducing capital spending to the minimum needed to properly maintain the assets, meet new regulatory requirements and solidify our leadership in high growth businesses where we have sustainable competitive advantages. Our focus is on sustaining our operations at improved levels of efficiency

Record Safety Performance
Recordable Incident Rate (RIR)



— First Quartile 2001
 American Chemistry Council Best 2001

“ The skill of our employees and their dedication to superior performance enabled us to control costs and generate significant cash from operations during 2002. ”

and reliability, and we accomplish this by holding ourselves accountable for producing results every day, at every level in the organization, and by embracing an independent system of process improvement, auditing and sharing of best practices that permeates the Lyondell culture.

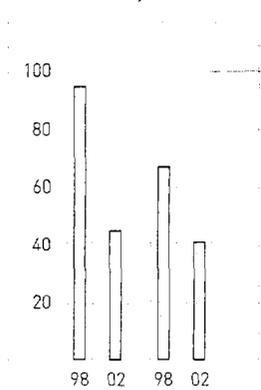
Among the year's highlights:

- For the second year in a row we set a record for safety performance, achieving an all-time low recordable incident rate of 0.52. This once again ranks Lyondell among the best in the chemical industry, and demonstrates an outstanding level of employee commitment and engagement across the enterprise.
- We continued to set new milestones for efficient use of working capital. By reducing the days of sales in receivables, inventories and payables by at least four days at each company, the enterprise freed up in excess of \$200 million of cash that substantially offset the working capital effects of rising feedstock and product prices.
- Lyondell increased its ownership interest in Equistar to 70.5 percent. As a result, Lyondell will receive a higher proportion of the earnings and cash flow generated, accelerating our debt repayment opportunities as the business cycle improves.

We continued to enhance our leadership position in propylene oxide (PO) and derivatives in a number of ways:

- Our new butanediol (BDO) plant in The Netherlands, the largest facility of its kind in the world, began operations this year. Along with our U.S. facility, it significantly enhances our ability to cost-effectively serve customers in Europe, Asia and North America.
- Our newest plant in The Netherlands, a joint venture with Bayer of Germany, will be the largest, most technologically advanced PO plant in the world when it comes on stream in late 2003. This new facility, integrated with our BDO plant, will strengthen our ability to supply our customers' growing need for these versatile chemicals.
- We announced plans to build a pilot plant to test our proprietary, one-step, direct oxidation PO technology. Developed at our Newtown Square, Pennsylvania, research center, this unique technology will enable the production of PO without co-products, making it the lowest-cost PO production technology in the world.

Driving Down Working Capital
Days

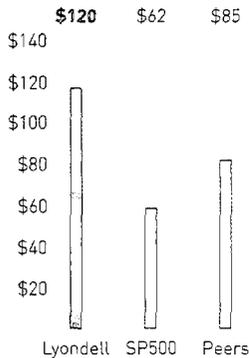


□ Lyondell
□ Equistar

Based on accounts receivable (including those sold), inventories and accounts payable as of 12/31, and fourth-quarter days of sales.

**Lyondell Outperforms
the S&P 500**

Value on 12/31/02 of \$100
Invested on 12/31/99



- From 1999 through the end of 2002, despite the steadily deteriorating economic conditions that characterized that period, Lyondell's total shareholder return (TSR) was 20 percent, outperforming not only our S&P chemical group peers, whose TSR averaged a 15 percent loss, but also the S&P 500, which lost nearly 38 percent.

At Lyondell, our belief about what it takes to be a successful competitor in the chemical industry through the ups and downs of the cycle remains constant. We must have low-cost operations, a sustainable competitive advantage through technology or market position, global presence, scale, breadth and depth of products, and financial flexibility, especially capital market liquidity. These are the drivers of our actions today and for the future.

Although the year 2003 began by presenting some of the same external challenges we faced last year, I am optimistic. Already, supply conditions are beginning to tighten in the olefins industry, and the economy seems to be showing early signs of recovery. As current global political issues are resolved, Lyondell is well positioned to benefit significantly.

We appreciate the trust and confidence of our customers and investors during these difficult times. At Lyondell, we have built a strong business on quality assets with quality people. Together we are dedicated to making the right decisions at the right time to create value for our stakeholders.

Dan F. Smith
President and Chief Executive Officer



Message from the Chairman

INDEPENDENCE OF THE BOARD OF DIRECTORS AND ITS COMMITTEES AND INTEGRITY OF OUR governance processes were commitments at Lyondell long before events in recent years highlighted their importance. As Lyondell's non-executive chairman for the past five years, I can attest to the fact that Lyondell has an active, engaged board that supports the company's strategic plan and is interested in all aspects of its operations. Board members enjoy full and open access to management at all levels and to whatever information they need.

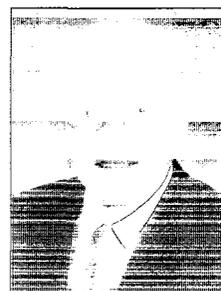
I'm pleased to say that our efforts are recognized. In 2002, Institutional Shareholder Services (ISS) ranked Lyondell number one in corporate governance among the companies that comprise the S&P 400 index. It is gratifying to be recognized for our leadership, and as we continue to refine and improve our practices, we're confident we will remain in the forefront in meeting new legislative and regulatory requirements. Most importantly, Dan Smith and I share a commitment to meeting and exceeding your expectations.

I invite you to read Lyondell's governance guidelines and committee charters, which are included on the Corporate Governance page of the company's web site at www.lyondell.com.

Obviously, we are disappointed that the protracted economic downturn prevents the company from realizing the full potential of its strong and balanced portfolio. However, the Board is confident that the company's long-term strategy, and the steps taken over the past year to optimize the portfolio and improve Lyondell's operational efficiency, will bring substantial benefits as economic conditions improve.



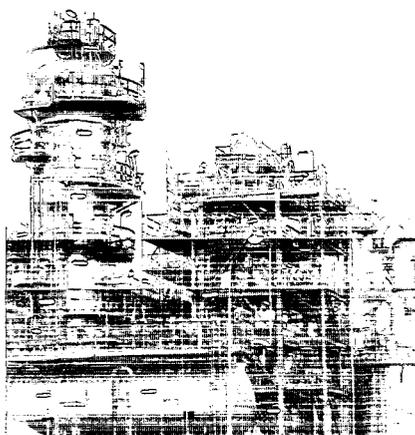
William T. Butler
Chairman of the Board



Lyondell Intermediate Chemicals & Derivatives: Growth & Stability



Revenues: \$3.3 billion
 Employees: 3,350
 Lyondell's ownership: 100%

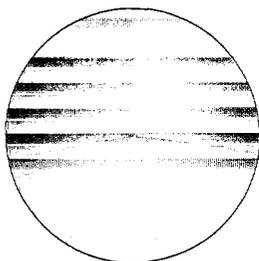


A leading worldwide producer of propylene oxide (PO), Lyondell's Intermediate Chemicals & Derivatives (IC&D) segment is the only PO producer with manufacturing operations in North America, Europe and Asia. IC&D possesses proprietary technologies for PO production and operates in a global industry that provides a relatively stable platform of earnings and cash flow over time, as well as growth opportunities.

At a Glance

At Lyondell, we believe that to succeed in an increasingly competitive global chemical industry, we must have low-cost operations, a sustainable competitive advantage through technology or market position, global presence, scale, breadth and depth of products, and financial flexibility, especially capital market liquidity. Over the past five years, Lyondell has created a global enterprise with a balanced portfolio of strategically integrated business segments, each of which plays a unique role in supporting the enterprise during all phases of the business cycle.

The Lyondell Enterprise

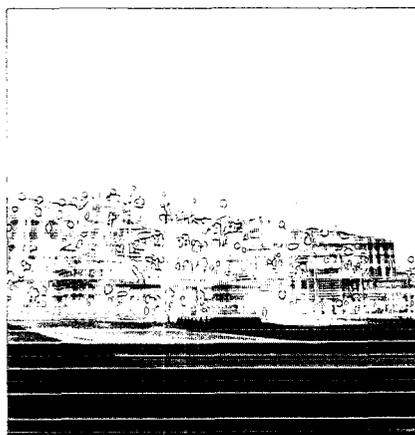


2002 Total Revenues for Lyondell and Joint Ventures: \$12.2 billion
 Joint ventures shown on 100% basis.
 Total employees as of 12/31/02: 7,750

Equistar Chemicals: Cash Leverage to the Business Cycle



Revenues: \$5.5 billion
 Employees: 3,400
 Lyondell's ownership: 70.5%

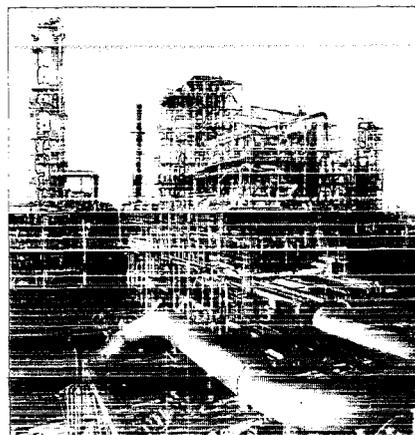


Equistar, a major North American producer of ethylene, is a commodity chemical business. Large-scale operations and the operational flexibility to use the lowest-cost raw materials provide Equistar with significant potential for earnings and cash flow generation as the business cycle improves. In 2002 Lyondell increased its ownership interest in Equistar to 70.5 percent, giving Lyondell access to a higher proportion of Equistar's future earnings and cash flows, which will enable Lyondell to accelerate its debt reduction as the business cycle improves.

LYONDELL-CITGO Refining: Steady Cash Flow



Revenues: \$3.4 billion
 Employees: 1,000
 Lyondell's ownership: 58.75%



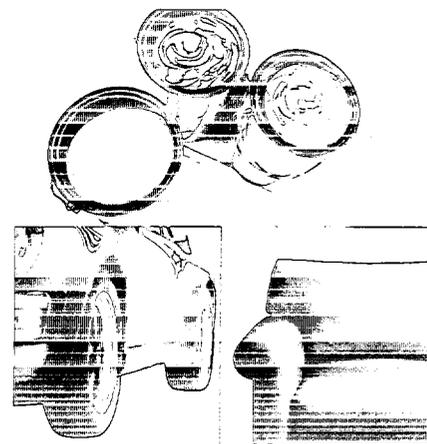
LYONDELL-CITGO Refining LP (LCR), in which Lyondell has a 58.75% interest, is a venture between Lyondell and CITGO Petroleum Corporation and is one of the largest refiners of heavy crude oil in the United States. The LCR deemed margin contract assures a predetermined margin on every barrel of crude oil it processes under the contract, making LCR's earnings essentially independent of the typical refining cycle. A contractually stable business, LCR provides strong cash generation.

IC&D Key Data

Major Products	Rated Capacity (Million lb/yr)	2002 Major Capacity Positions	
		Global	N. America
Propylene oxide (PO)	3,870	2	1
Styrene monomer (SM)	3,650	3	1
MTBE (bbl/day)	58,500	1	1
Propylene glycol (PG) & Propylene glycol ethers (PGE)	1,260	2	2
Toluene diisocyanate (TDI)	574	2	3
Butanediol (BDO)	395	2	4

IC&D Strengths

- Created and owns the industry standard in propylene oxide (PO) technology and is leading the development of one-step PO production technology.
- The only PO producer with manufacturing facilities in North America, Europe and Asia.
- A growing producer of butanediol (BDO), a PO derivative and key intermediate chemical for engineering plastics and urethanes.
- A key global producer of propylene glycol (PG), a PO derivative and key component of aircraft deicers and fiberglass resins, and propylene glycol ethers (PGE), key components of coatings, cleaners and solvents.
- A major producer of styrene monomer (SM) and MTBE as co-products of PO production.

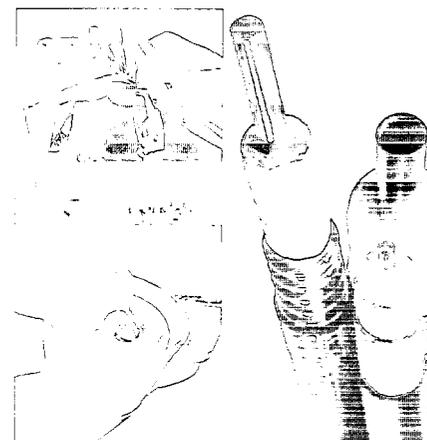


Equistar Key Data

Major Products	Rated Capacity (Million lb/yr)	2002 Major Capacity Positions	
		Global	N. America
Ethylene	11,600	5	2
Propylene	5,000	6	2
Butadiene	1,200	2	1
Benzene (million gal/yr)	310		4
Ethylene glycol (EG)	1,000		3
Ethylene oxide (EO)	1,100		3
Polyethylene			
High-density polyethylene (HDPE)	3,100		3
Low-density polyethylene (LDPE)	1,500		3
Linear low-density polyethylene (LLDPE)	1,100		4

Equistar Strengths

- Feedstock flexibility across manufacturing facilities enables production optimization by switching to lowest-cost feedstock alternatives, differentiating Equistar in the industry.
- A leading North American producer of olefins and polymers, ethylene oxide and ethylene oxide derivatives.
- A key producer of polymer resins for plastic films, blow-molded and extruded products, and wire and cable insulating resins and compounds for electrical, electronic, telecommunications and automotive markets.
- 1,400-mile ethylene/propylene pipeline distribution system that spans the Texas Gulf Coast to Louisiana.

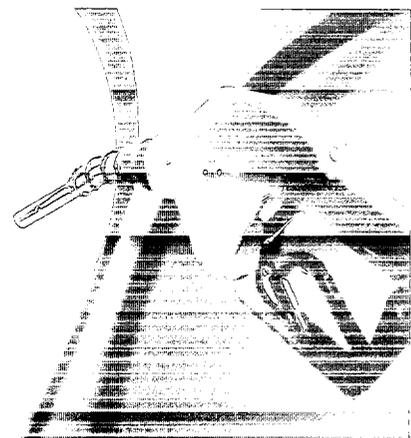


LCR Key Data

Major Products	Rated Capacity
Crude run capacity (thousand bbl/day)	268
Gasoline (thousand bbl/day)	120
Diesel (thousand bbl/day)	90
Benzene (million gal/yr)	10
Paraxylene (million lb/yr)	400
Orthoxylene (million lb/yr)	270

LCR Strengths

- Deemed margin contract removes the earnings volatility typical in the refining industry.
- One of the largest refineries in the U.S. designed to process extra-heavy crude oil.
- A leader in the production of clean fuels — capable of producing 100% distillate as low-sulfur diesel fuel and more than 70% of gasoline as higher-value reformulated or oxygenated fuel.

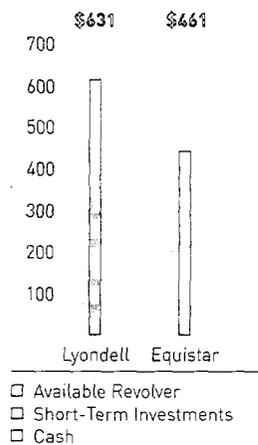




Financial Responsibility

Particularly in the face of today's global economic and geopolitical uncertainty, employees at every level of the organization have demonstrated their dedication to achieving the company's long-term objectives while staying mindful of its near-term needs.

Lyondell and Equistar Liquidity
\$ in millions



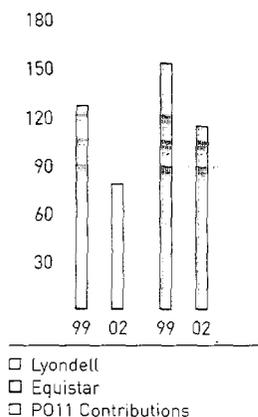
MAINTEIN LIQUIDITY. REPAY DEBT. ACHIEVE INVESTMENT-GRADE CREDIT RATING. THAT'S LYONDELL'S SIMPLE financial strategy for creating maximum value for all our stakeholders. Every day we dedicate ourselves to achieving our financial goals and staying focused on managing matters that are within our direct control.

Despite the strains of a troubled economy and a prolonged trough in the chemical industry, we have positioned ourselves for maximum advantage as the inevitable upturn comes. And we've done so creatively, in ways that conserve cash. Last year, for example, we issued an equity position in Lyondell to Occidental Petroleum that enabled us to increase our ownership of Equistar to 70.5 percent, giving us access to significant earnings as the economy recovers. We're committed to using rising cash flows to reduce debt. Our goal is an investment-grade credit rating.

By leveraging our capabilities and resources with our partners, we are conserving cash on our balance sheet while advancing our long-term strategy of increasing global presence, building scale and broadening product depth and breadth. Equistar may be the most visible example of this vision while our new European propylene oxide (PO) plant, a joint venture with Bayer in The Netherlands, is the most recent.

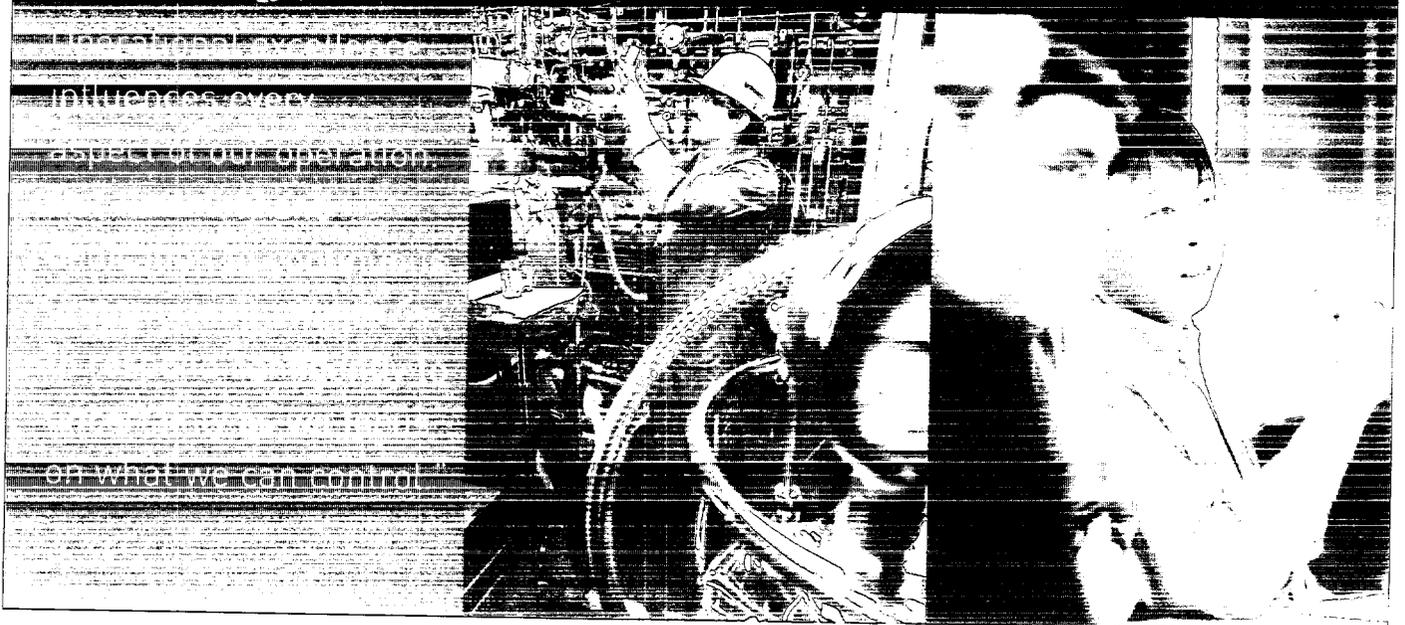
Our commitment to financial responsibility extends throughout the organization. Particularly in the face of today's global economic and geopolitical uncertainty, employees at every level of the organization have demonstrated their dedication to achieving the company's long-term objectives while staying mindful of its near-term needs. At the end of 2002, Lyondell had more than \$600 million of cash and undrawn borrowing capability; we accomplished this through conservative, proactive financing efforts and, more importantly, by continued success in minimizing working capital, reducing fixed costs, and increasing productivity and efficiency throughout the enterprise. A dedication to financial responsibility enables Lyondell to maintain sufficient liquidity to respond confidently to the uncertainties of the global market.

Capital Spending
\$ in millions





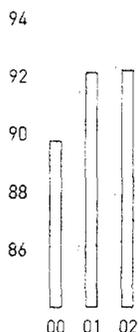
CustomerX^{XPRESS}.com



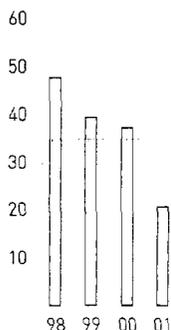
Operational Excellence

We completed our second consecutive year of record-setting on-the-job safety performance and have been recognized for having among the safest operations in the chemical industry.

Driving Up Polymer Quality
First pass prime in %



Reducing Air Emissions
Tons (000s)



OPERATIONAL EXCELLENCE, OUR APPROACH TO CONTINUOUS IMPROVEMENT IN ALL ASPECTS OF OUR OPERATION, is giving us high-quality products, clean and safe plants and a sustainable future for all Lyondell's stakeholders — our plant communities, our families, our customers and our investors. Operational excellence goes well beyond our efforts to excel in the manufacturing environment. It influences every aspect of Lyondell's operations. This is because, in good times and bad, we focus on what we can control.

As the trough in the chemical industry continued during 2002, we did not stand still. We significantly reduced costs and working capital while supporting the needs of our manufacturing operations throughout the world. At the same time, we completed our second consecutive year of record-setting on-the-job safety performance and have been recognized for having among the safest operations in the chemical industry. And, by listening to our customers and responding to their needs, we ranked with the very best of our peers in customer satisfaction, particularly in such key areas as quality, reliability, problem resolution and order fulfillment.

Our focus on operational excellence extends to technology. For some 50 years, the chlorohydrin process was the industry standard for propylene oxide production. In the late 1960s, we revolutionized the industry by pioneering the second wave of PO technology, peroxidation, which became the new industry standard and, as we have continuously improved this technology, remains so today. Now, building on this technological leadership, Lyondell is introducing the wave of the future: an innovative one-step, direct-oxidation process for PO production that does not yield a co-product. We are building a pilot plant at our technology center in Newtown Square, Pennsylvania, for a final demonstration of this technology before its commercialization.

Working individually or in teams, each of Lyondell's employees throughout the world is personally dedicated to excellence. When focused on continuous improvement and the use of best practices from within our organization and throughout industry, the creative thought that is the product of a richly diverse employee base is limitless in its potential.

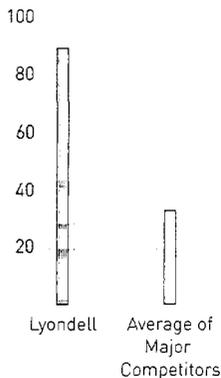


Global Care Day
gives employees
from Brazil to
the Netherlands
in a single day of
volunteering to
enhance the lives
of our communities,
our friends and
our families.

People & Performance

Knowledgeable and creative, we focus our diversity of talents on efficiency and process improvement as a means of keeping our costs low, our quality high and our customers satisfied.

PO Patents
1993-2002



IN THE CAPITAL-INTENSIVE COMMODITY CHEMICAL INDUSTRY, LYONDELL'S FOCUS IS ON OUR PEOPLE. THAT'S BECAUSE capital does not distinguish one competitor from another. People do. And Lyondell has some of the best-performing, most productive people in the business.

Knowledgeable and creative, we focus our diversity of talents on efficiency and process improvement as a means of keeping our costs low, our quality high and our customers satisfied. Lyondell's employees continuously demonstrate their flexibility, acting swiftly and decisively to take full advantage of the opportunities presented by a dynamic marketplace.

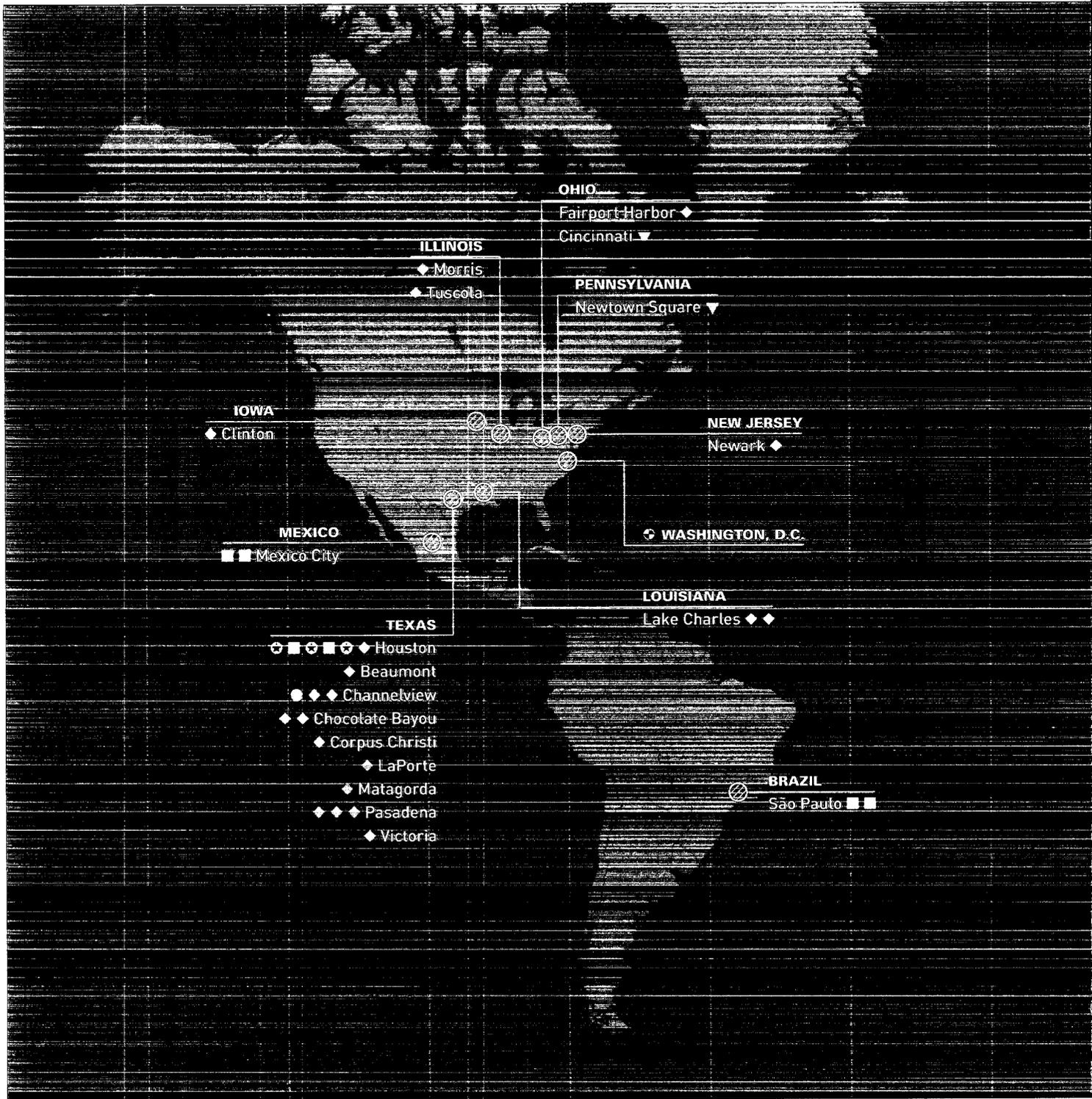
Our business success depends heavily on having skilled, dedicated people who not only share a common vision and a commitment to operational excellence, but also embrace the company's strategy and are empowered to implement it. Their achievements can be powerful. In 2002, for example, at the same time we reduced costs and conserved cash, we finished our second consecutive year of record-setting safety performance, which positions our manufacturing plants among the safest in the chemical industry.

Lyondell employees also are good neighbors who listen and seek opportunities to share knowledge. In most of our plant communities, we participate in community advisory panels to promote regular, direct dialogue with the people who live and work near our plants. Further, many Lyondell employees strive to make a personal difference by volunteering their time and talents to service projects that benefit the communities where we operate. Whether we're trying to develop students' curiosity and appreciation of science, assisting families in rebuilding their lives after natural disasters, raising funds to wipe out crippling illnesses or helping our neighbors to "clean up, paint up and fix up" their neighborhoods, Lyondell employees throughout the world are an active part of our communities.



Global Care Day

Worldwide Locations



Lyondell

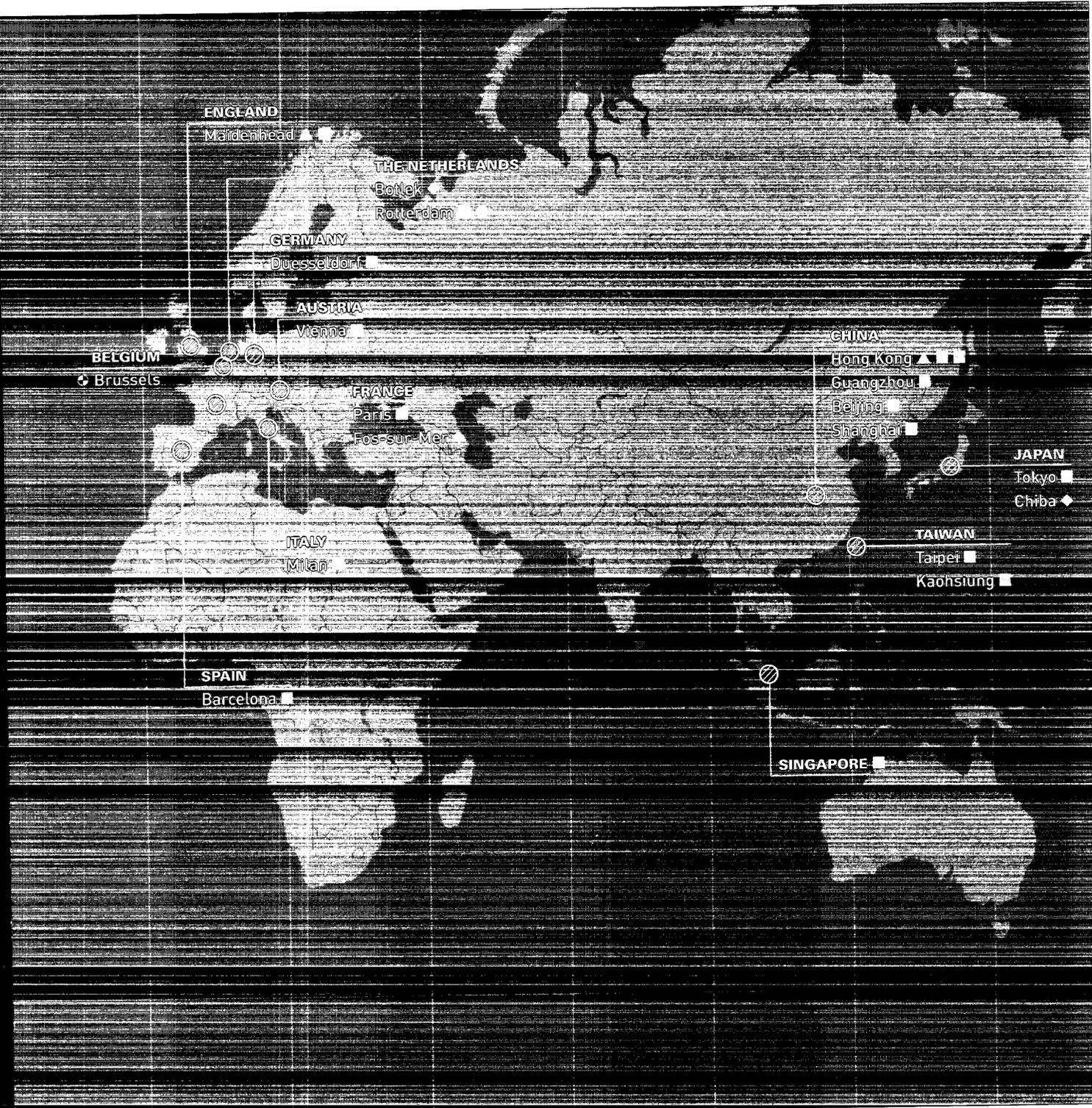
- ⊗ Worldwide Headquarters
- Regional Headquarters
- ▢ Representation Offices
- Service Center
- ▽ Technology Centers
- ◇ Manufacturing Facilities
- ⊕ Government Affairs

Equistar

- ⊗ Worldwide Headquarters
- Representation Offices
- ▽ Technology Centers
- ◇ Manufacturing Facilities
- ⊕ Government Affairs

LYONDELL-CITGO Refining

- ⊗ Worldwide Headquarters
- ◇ Manufacturing Facilities
- ⊕ Government Affairs



Our Leadership



Carol A. Anderson^{1,2}
Managing Director,
New Century Investors,
LLC



Dr. William T. Butler^{2,3,4}
Chairman of the Board,
Lyondell Chemical
Company
Chancellor, Baylor
College of Medicine



Stephen I. Chazen
Chief Financial Officer
& Executive Vice
President, Corporate
Development
Occidental Petroleum
Corporation



Travis Engen^{2,4}
President &
Chief Executive Officer,
Alcan Inc.



Stephen F. Winchcliffe, Jr.^{1,3}
Chairman of the Board
& Chief Executive
Officer, BHH
Management, Inc.



Dr. Ray R. Irani
Chairman of the Board
& Chief Executive
Officer, Occidental
Petroleum Corporation



David J. Lesar^{1,3}
Chairman of the
Board, President &
Chief Executive Officer,
Halliburton Company



Dudley C. Mecum^{2,3}
Managing Director,
Capricorn Holdings LLC



Dan F. Smith¹
President & Chief
Executive Officer,
Lyondell Chemical
Company



Dr. William R. Spivey^{1,2}
Retired President &
Chief Executive Officer,
Luminent Inc.

- ¹ Audit Committee
- ² Corporate Governance and
Responsibility Committee
- ³ Compensation Committee
- ⁴ Executive Committee

Symbols in red indicate chair position.

LYONDELL EXECUTIVE OFFICERS

Dan F. Smith
President and Chief Executive Officer

Morris Gelb
Executive Vice President and
Chief Operating Officer

John R. Beard
Senior Vice President and
President, Lyondell Chemical Europe

James W. Bayer
Senior Vice President, Manufacturing

Edward J. Dineen
Senior Vice President,
Chemicals and Polymers

T. Kevin DeNicola
Senior Vice President,
Chief Financial Officer

Kerry A. Galvin
Senior Vice President,
General Counsel and Secretary

John A. Hollinshead
Vice President, Human Resources

W. Norman Phillips, Jr.
Senior Vice President,
Fuels and Raw Materials

LYONDELL OFFICERS

Russell T. Crockett
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Karen A. Twitchell
Vice President and Treasurer

Charles Yang
President, Lyondell Asia Pacific

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

(Mark One)

- Annual Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 2002.
- Transition Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934

Commission File No. 1-10145

LYONDELL CHEMICAL COMPANY

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of
Incorporation or organization)

95-4160558

(I.R.S. Employee Identification No.)

1221 McKinney Street,
Suite 700, Houston, Texas
(Address of principal executive offices)

77010
(Zip Code)

Registrant's telephone number, including area code: (713) 652-7200

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Name of each exchange on which registered</u>
Common Stock (\$1.00 par value)	New York Stock Exchange
Preferred Share Purchase Rights	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

There were 117,564,920 shares of the Registrant's common stock outstanding on June 28, 2002, the last business day of the Registrant's most recently completed second fiscal quarter. The aggregate market value of the voting stock held by non-affiliates of the Registrant on June 28, 2002, based on the closing price of the Registrant's common stock on the New York Stock Exchange composite tape on that date, was \$1,768,373,639.

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Act).
Yes No

An aggregate of 160,413,810 shares of the Registrant's common stock were outstanding as of February 28, 2003, including 125,845,586 shares of common stock, \$1.00 par value, and 34,568,224 shares of Series B common stock, \$1.00 par value.

DOCUMENTS INCORPORATED BY REFERENCE

The Registrant's definitive proxy statement for its 2003 Annual Meeting of Shareholders, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2002, is incorporated by reference to the extent specified under Part III.

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PART I

Items 1 and 2. *Business and Properties*

Lyondell Chemical Company ("Lyondell" or the "Company") is a global chemical company. Lyondell manufactures and markets a variety of intermediate and performance chemicals, including propylene oxide ("PO") and its derivatives, propylene glycol ("PG"), propylene glycol ethers ("PGE") and butanediol ("BDO"), co-products styrene monomer ("SM") and tertiary butyl alcohol ("TBA") and its derivative, methyl tertiary butyl ether ("MTBE"), as well as toluene diisocyanate ("TDI"), and methanol, which are collectively known as the Company's intermediate chemicals and derivatives business.

The Company owns 70.5% of Equistar Chemicals, LP, a Delaware limited partnership ("Equistar"), which operates petrochemicals and polymers businesses. Millennium Chemicals Inc. ("Millennium") owns the remaining 29.5% of Equistar. Equistar's petrochemicals business manufactures and markets olefins, oxygenated products, aromatics and specialty products. Equistar's olefins include ethylene, propylene and butadiene and its oxygenated products include ethylene oxide ("EO") and its derivatives, ethylene glycol ("EG"), ethanol, and MTBE. Equistar's aromatics include benzene and toluene. Equistar's polymers business manufactures and markets polyolefins, including high density polyethylene ("HDPE"), low density polyethylene ("LDPE"), linear low density polyethylene ("LLDPE"), polypropylene and performance polymers. Equistar's performance polymers include enhanced grades of polyethylene such as wire and cable insulating resins, and polymeric powders.

The Company also owns 58.75% of LYONDELL-CITGO Refining LP, a Delaware limited partnership ("LCR"), which produces refined petroleum products, including gasoline, low sulfur diesel, jet fuel, aromatics and lubricants ("lube oils"). LCR sells its principal refined products primarily to CITGO Petroleum Corporation ("CITGO"), which owns the remaining 41.25% of LCR.

Development of Business

In December 1997, Lyondell and Millennium combined most of their petrochemicals and polymers businesses to form Equistar. Lyondell contributed substantially all of the assets comprising its petrochemicals and polymers business segments, and Millennium contributed substantially all of the assets comprising its olefins, ethanol, polyethylene, polypropylene and performance polymers businesses, which had been held in Millennium Petrochemicals Inc. ("Millennium Petrochemicals"), a wholly owned subsidiary of Millennium. In May 1998, Lyondell and Millennium expanded Equistar with the addition of the ethylene, propylene, EO, EG and other EO derivatives businesses (the "Occidental Contributed Business") of Occidental Chemical Corporation, a subsidiary of Occidental Petroleum Corporation ("Occidental"). From May 1998 until August 2002, Lyondell owned 41% of Equistar, and Millennium and Occidental each owned 29.5% of Equistar.

On August 22, 2002, Lyondell purchased Occidental's interest in Equistar, bringing Lyondell's interest in Equistar to 70.5%. Lyondell financed its acquisition of Occidental's interest in Equistar by selling the following to a subsidiary of Occidental:

- 34 million shares of newly issued Lyondell Series B common stock;
- five-year warrants to acquire five million shares of Lyondell original common stock at \$25 per share; and
- a right to receive contingent payments equivalent in value to 7.38% of Equistar's cash distributions related to 2002 and 2003, up to a total of \$35 million, payable in cash, Series B common stock or original common stock, as determined by Lyondell.

The transactions included concurrent payments between the parties of agreed amounts of approximately \$440 million. See "Item 5. Market for Registrant's Common Equity and Related Stockholder Matters" for a description of the Series B common stock. In addition, as part of these transactions, two Occidental executives, Dr. Ray R. Irani, Chairman and Chief Executive Officer, and Stephen I. Chazen, Chief Financial Officer and Executive Vice President, became members of Lyondell's Board of Directors.

In July 1998, Lyondell completed the acquisition (the "ARCO Chemical Acquisition") of all the outstanding shares of ARCO Chemical Company ("ARCO Chemical"), which was the world's largest producer of PO and a leading worldwide producer of polyols, PG, PGE, BDO, TDI, SM and MTBE. The acquired business is referred to as "ARCO Chemical" for actions or events prior to the ARCO Chemical Acquisition.

Prior to May 2002, Lyondell and a third party owned Lyondell Methanol Company, L.P. ("LMC"), a Texas limited partnership that produces methanol. Effective May 1, 2002, LMC redeemed the 25% partnership interest owned by the third party. As a result, LMC is now wholly owned by Lyondell and the methanol operations are included in Lyondell's intermediate chemicals and derivatives business segment.

On March 31, 2000, Lyondell completed the sale of the polyols business and ownership interests in its U.S. PO manufacturing operations to Bayer AG and Bayer Corporation (collectively, "Bayer") for approximately \$2.45 billion. Lyondell used net proceeds of the asset sale to retire a significant portion of its outstanding debt under its credit facility. As part of the transaction, Lyondell entered into a U.S. PO manufacturing joint venture with Bayer (the "PO Joint Venture") and a separate joint venture with Bayer for certain related PO technology (the "PO Technology Joint Venture"). Lyondell and Bayer take production from the PO Joint Venture in kind. In addition, in December 2000, Lyondell and Bayer formed a separate 50/50 joint venture (the "PO-11 Joint Venture") for the construction of PO-11, a previously announced world-scale PO/SM plant being constructed near Rotterdam, The Netherlands.

Lyondell was incorporated under the laws of Delaware in 1985. Its principal executive offices are located at 1221 McKinney Street, Suite 700, Houston, Texas 77010 (Telephone: (713) 652-7200). Lyondell's website address is www.lyondell.com. Lyondell's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports are available free of charge through Lyondell's website as soon as reasonably practicable after those reports are electronically filed with or furnished to the Securities and Exchange Commission. Information contained on Lyondell's website or any other website is not incorporated into this Annual Report and does not constitute a part of this Annual Report.

Strategy

Guiding Principles

Lyondell has built its enterprise around a fundamental belief that, to be a successful competitor in the chemical industry, the Company must have:

- low total production costs;
- sustainable competitive advantage (driven by technology or market position);
- global presence;
- scale;
- product line depth and breadth; and
- financial flexibility, especially capital market liquidity.

Portfolio

Driven by this basic belief, Lyondell assembled a balanced portfolio comprising three businesses that are integrated both operationally and financially. Each plays a strategic role in creating stakeholder value:

- Lyondell Chemical Company (intermediate chemicals and derivatives business segment) is a leading global producer and marketer of PO and derivatives. It offers strength in process technology in an industry that provides a relatively stable platform of earnings and cash flow over time, as well as growth opportunities.
- Equistar Chemicals, LP (petrochemicals and polymers business segments), a joint venture with Millennium, is a leading North American producer of ethylene, propylene and polyethylene. Large scale operations and the operational flexibility to use the lowest-cost raw materials provide Equistar with competitive advantages. These highly cyclical businesses are positioned to generate significant earnings and cash flow as the business cycle improves.

- LYONDELL-CITGO Refining LP (refining business segment), a joint venture with CITGO, is a major refiner of heavy crude oil under a unique supply contract that enables it to realize a predetermined margin on every barrel of oil it refines under the contract. A contractually stable business, LCR provides strong cash generation. See "LYONDELL-CITGO Refining LP—Raw Materials" for a description of the supply contract.

Spun-off from Atlantic Richfield Company in 1989, Lyondell remained relatively stable in size until the mid-1990s, when the Company began to focus on the strategic formation of the enterprise. Through a series of initiatives, Lyondell has grown into a global enterprise with more than \$12 billion in assets under management, has acquired considerable intellectual capital and has built a talented, diverse employee base. These initiatives included:

- creation of LCR as a joint venture with CITGO in 1993, with LCR growing to its present form as a result of the completion of a \$1 billion upgrade in 1997 that enabled it to process very heavy crude oil from Venezuela;
- formation of Equistar as a joint venture with Millennium in 1997, with the addition of Occidental as an owner in 1998;
- acquisition of ARCO Chemical in 1998; and
- establishment of strategic alliances with Bayer in 2000.

From 1999 to present, Lyondell's focus has been on solidifying the enterprise's foundation through:

- portfolio adjustments, including the 2002 acquisition by Lyondell of Occidental's ownership interest in Equistar;
- capacity rationalization;
- project prioritization; and
- organizational effectiveness, including the 2002 consolidation of Lyondell's and Equistar's management, sales and marketing activities.

Operational Excellence

Through intense focus on operational excellence – the enterprise's approach to continuous improvement in all aspects of its operations – Lyondell continually seeks to maximize the value of each of the businesses in its portfolio. Actions taken have led to:

- continued improvements in safety, environmental performance, reliability and product quality. In 2002, the enterprise completed its second consecutive year of record-setting safety performance;
- significant reductions in fixed costs by establishing and extending shared services arrangements and consolidating the management structure of Lyondell and Equistar;
- improved operational efficiency by shifting production to lower-cost, more efficient sites and simplifying production scheduling, such as by temporarily idling Equistar's Lakes Charles, Louisiana olefins facility and shutting down Equistar's Port Arthur, Texas polyethylene facility, Peachtree City, Georgia wire and cable insulating compounds facility and Anaheim, California ethanol denaturing facility;
- the exit or divestiture of non-strategic assets, including Lyondell's non-core ADI assets and certain other specialty businesses;
- reduced supply chain costs while improving customer service and responsiveness, such as through the implementation of CustomerXPRESS.com, an e-business initiative that enables customers to access information regarding their business with Lyondell and Equistar 24 hours a day, 7 days a week; and
- steady improvement of capital utilization across the enterprise through actions such as inventory reduction and increased operational efficiency.

Business Focus

Lyondell's business activities are driven by its fundamental beliefs about what it takes to succeed in the chemical industry.

In the intermediate chemicals and derivatives business segment, global presence and a leadership position in technology are key. Recent major projects with respect to the intermediate chemicals and derivatives business segment include:

- construction of a world-scale PO/SM plant in The Netherlands with an expected start-up during the second half of 2003, through a joint venture with Bayer that further links Lyondell with a strong partner in the urethanes market (the major end-use for PO);
- completion in The Netherlands of the world's largest BDO plant, which began production during the third quarter of 2002, positioning Lyondell to serve the growing needs of BDO customers in Europe, Asia and North America; and
- construction of a pilot plant scheduled for completion in the fourth quarter of 2003 at Lyondell's technology center in Newtown Square, Pennsylvania, to demonstrate one-step, direct-oxidation PO production without a co-product.

At Equistar, major emphasis is on developing scale and maintaining low production costs. Recent major projects with respect to the petrochemicals and polymers business segments include Equistar's participation with Reliant Energy in the construction of a co-generation facility at Equistar's Channelview, Texas complex, enabling Equistar to lower energy costs.

Financial Strategy

Lyondell has a financial strategy that is designed to maximize value for all its key financial stakeholders:

- maintain sufficient liquidity;
- repay debt; and
- achieve an investment-grade credit rating.

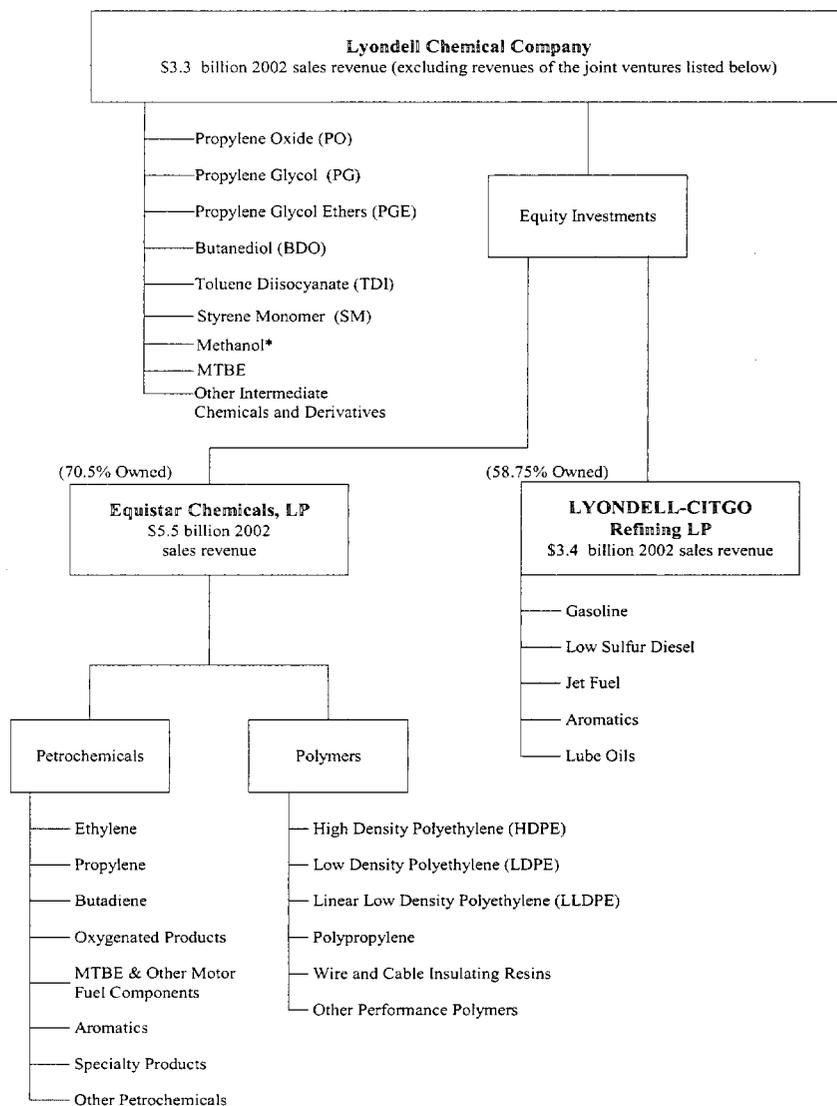
During current industry trough conditions, liquidity has been a key focus for Lyondell and this has been reinforced by its operational excellence process. In 2002, the Company enhanced its liquidity by issuing 8.28 million shares of Lyondell's original common stock and by extending debt maturities through the refinancing of \$515 million of Lyondell debt. Longer term, as industry conditions improve, the Lyondell business portfolio is designed to generate significant amounts of cash, which will be directed toward the repayment of debt. The Company's objective is to improve its financial flexibility by achieving an investment grade credit rating, which the Company believes can be achieved following debt reduction and strengthening of the Company's financial position.

Summary Description of Business Segments

The Company reports its results of operations in four segments: intermediate chemicals and derivatives; petrochemicals; polymers; and refining. The Company's petrochemicals and polymers businesses are conducted through Equistar, and the Company's refining business is conducted through LCR.

THE COMPANY BUSINESS

The following chart shows the organization of Lyondell, as well as 2002 sales revenues for Lyondell, Equistar and LCR.



*Effective May 1, 2002, LMC was wholly owned by Lyondell, and LMC's methanol operations were included in Lyondell's intermediate chemicals and derivatives segment.

Sales revenues shown above include sales to related parties. Sales revenues shown do not include Bayer's share of production from the PO Joint Venture. For additional segment information for each of the years in the three-year period ended December 31, 2002, see Note 22 of Notes to Consolidated Financial Statements.

INTERMEDIATE CHEMICALS AND DERIVATIVES

Overview

Lyondell is a leading global manufacturer and marketer of intermediate chemicals and performance chemical products used in a broad range of consumer goods. The segment's core product is PO, which is currently produced through two distinct technologies based on indirect oxidation processes that yield co-products. One process yields TBA as the co-product; the other yields SM as the co-product. The two technologies are mutually exclusive, necessitating that a manufacturing facility be dedicated either to PO/TBA or to PO/SM. The intermediate chemicals and derivatives business segment also manufactures numerous derivatives of PO and TBA. PG, PGE and BDO are among the derivatives of PO. MTBE is the principal derivative of TBA. This segment also manufactures methanol and manufactures and markets TDI.

In North America, the Company produces PO, TBA, PG and PGE at its Bayport (Pasadena), Texas plants and PO, SM, MTBE and BDO at its Channelview, Texas plants. The Bayport PO/TBA plants and the Channelview PO/SM I plant are owned by the PO Joint Venture. The Channelview PO/SM II plant is owned by the Company together with unaffiliated equity investors. The Company produces TDI at its Lake Charles, Louisiana plant. In Europe, the Company produces PO, TBA, PG, PGE and MTBE at plants near Rotterdam, The Netherlands, and Fos-sur-Mer, France. In Europe, the Company also currently obtains TDI and toluene diamine, a precursor of TDI, through agreements with Rhodia Intermediaries ("Rhodia"). In the third quarter of 2002, Lyondell's new BDO facility near Rotterdam, with a 275 million pound annual capacity, began production. Additionally, construction of a world-scale PO/SM plant, known as PO-11, located near Rotterdam, began in the second quarter of 2001. PO-11, which has a planned total capacity of 625 million pounds of PO and 1.4 billion pounds of SM, is owned 50% by Lyondell and 50% by Bayer and will be operated by Lyondell. PO-11 currently is expected to start up during the second half of 2003. In the Asia Pacific region, the Company currently has a 50% interest in Nihon Oxirane, which operates a PO/SM plant in Chiba, Japan.

The Company estimates, based in part on published data, that worldwide demand for PO was approximately 11 billion pounds in 2002. Approximately 90% of that volume was consumed in the manufacture of three families of PO derivative products: polyols, PG and PGE. The remainder was consumed in the manufacture of a growing segment of performance products, including BDO and its derivatives. The Company sells approximately one billion pounds of its annual capacity of PO in the merchant market and consumes the rest in the production of derivatives. PO accounted for approximately 13% of Lyondell's total revenues in 2002, 11% in 2001 and 10% in 2000. PG principally is used to produce unsaturated polyester resins and also is used in certain food, cosmetic and pharmaceutical applications and in automotive coolants and aircraft deicers. PGE are used as lower toxicity solvents for paints, coatings and cleaners. BDO and its derivatives are utilized in the production of fibers, engineering plastics, pharmaceuticals, personal care products and high performance coatings.

TDI is used in the production of polyurethanes for flexible foam applications ranging from furniture, bedding and carpet underlay to transportation and packaging. TDI also is used in the manufacture of coatings, sealants, adhesives and elastomers. TDI accounted for less than 10% of Lyondell's total revenues in 2002, and accounted for approximately 11% of Lyondell's total revenues in 2001 and 2000.

SM is produced and traded worldwide for commodity and specialty polymer applications, such as polystyrene and unsaturated polyester resins, as well as various uses in the rubber industry. Based on published data, worldwide demand for SM in 2002 was approximately 48 billion pounds. SM accounted for approximately 15% of Lyondell's total revenues in 2002, 14% in 2001 and 21% in 2000.

Lyondell converts most of its TBA to isobutylene, which is reacted with methanol to produce MTBE, an oxygenated gasoline blending component that increases octane and reduces automotive emissions. MTBE accounted for approximately 35% of Lyondell's total revenues in 2002, 38% in 2001 and 33% in 2000.

Worldwide demand for MTBE in 2002 was approximately 460,000 barrels per day, based on published data. In the United States, the Clean Air Act Amendments of 1990 set minimum levels for oxygenates, such as MTBE, in gasoline sold in areas not meeting specified air quality standards, which increased demand for MTBE. However, the presence of MTBE in some water supplies in California and other states due to gasoline leaking from underground

storage tanks and in surface water from recreational water craft has led to public concern about the use of MTBE. Certain federal and state governmental initiatives in the U.S. have sought either to rescind the oxygen requirement for reformulated gasoline or to restrict or ban the use of MTBE. Lyondell's North American MTBE sales represented approximately 26% of its total 2002 revenues. At this time, Lyondell cannot predict the impact that these initiatives will have on MTBE margins or volumes during 2003. Lyondell intends to continue marketing MTBE in the U.S. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Environmental Matters."

The following table outlines the intermediate chemicals and derivatives business segment's primary products, annual processing capacities as of January 1, 2003, and the primary uses for such products. Unless otherwise specified, annual processing capacities were calculated by estimating the number of days in a typical year that a production unit of a plant is expected to operate, after allowing downtime for regular maintenance, and multiplying that number by an amount equal to the unit's optimal daily output based on the design raw material mix. Because the processing capacity of a production unit is an estimated amount, actual production volumes may be more or less than capacities set forth below. Capacities shown include 100% of the capacity of joint venture facilities.

<u>Product</u>	<u>Annual Capacity</u>	<u>Primary Uses</u>
Propylene Oxide (PO)	3.87 billion pounds (a)	PO is a key component of polyols, PG, PGE and BDO.
Propylene Glycol (PG)	960 million pounds	PG is used to produce unsaturated polyester resins for bathroom fixtures and boat hulls; lower toxicity antifreeze, coolants and aircraft deicers; and cosmetics and cleaners.
Propylene Glycol Ethers (PGE)	300 million pounds	PGE are used as lower toxicity solvents for paints, coatings and cleaners.
Butanediol (BDO)	395 million pounds	BDO is used in the manufacture of engineering resins, films, personal care products, pharmaceuticals, coatings, solvents and adhesives.
Toluene Diisocyanate (TDI)	574 million pounds (b)	TDI is combined with polyols to produce flexible foam for automotive seating and home furnishings.
Styrene Monomer (SM)	3.65 billion pounds (c)	SM is used to produce plastics, such as expandable polystyrene for packaging, foam cups and containers, insulation products and durables and engineering resins.
Methyl Tertiary Butyl Ether (MTBE)	897 million gallons (58,500 barrels/day)	MTBE is a gasoline component for reducing emissions in reformulated gasolines and enhancing octane value.
Methanol	248 million gallons	Methanol is used to produce MTBE and a variety of chemical intermediates that are used to produce bonding adhesives for plywood, personal care products, polyester fibers and plastics.

- (a) Includes approximately 1.5 billion pounds in 2002 that represents Bayer's share under the PO Joint Venture, and 100% of the 385 million pounds of capacity of Nihon Oxirane, a joint venture of which the Company currently owns 50%. See "Joint Ventures and Other Agreements."
- (b) Includes approximately 274 million pounds of average annual TDI capacity processed by Rhodia at its plant in Pont de Claix, France, which is sold to and marketed by the Company. See "Joint Ventures and Other Agreements."
- (c) Includes approximately 1.1 billion pounds committed to unaffiliated investors under long-term processing agreements and 100% of the 830 million pounds of capacity of Nihon Oxirane, of which the Company currently owns 50%. See "Joint Ventures and Other Agreements."

Raw Materials

The principal hydrocarbon raw materials purchased by the intermediate chemicals and derivatives business segment are propylene, butane, ethylene, benzene and methanol. The market prices of these raw materials historically have been related to the price of: crude oil and its principal refinery derivatives; natural gas liquids; and

natural gas. These materials are received in bulk quantities via pipeline or marine vessels. Generally, the segment's raw materials requirements are purchased at market-based prices from numerous suppliers in the United States and Europe with which the Company has established contractual relationships, as well as in the spot market.

The Company's raw material suppliers include Equistar, which is a leading producer of propylene, ethylene and benzene and is expected to be the major supplier of these raw materials to Lyondell's U.S. business in 2003. See Note 7 of Notes to Consolidated Financial Statements.

In December 2002, the Company entered into an agreement with Methanex Corporation ("Methanex") for Methanex to become the exclusive supplier of the Company's worldwide methanol raw material requirements. The agreement provides cost-based supplies of methanol and will be phased-in over time beginning in 2003 and extending through 2009. Methanex has an option to extend the agreement for an additional three-year period.

The intermediate chemicals and derivatives business segment is a large volume consumer of isobutane for chemical production. The Company has invested in facilities, or entered into processing agreements with unrelated third parties, to convert the widely available commodity, normal butane, to isobutane. The segment is also a large consumer of oxygen for its PO/TBA plants at Bayport, Texas; Botlek (Rotterdam), The Netherlands; and Fos-sur-Mer, France.

The cost of raw materials generally is the largest component of total production cost for the intermediate chemicals and derivatives business. The segment's raw materials are, in general, commodity chemicals with numerous bulk suppliers and ready availability at competitive prices. Historically, raw material availability has not been an issue for the intermediate chemicals and derivatives business segment. However, in order to enhance reliability and competitiveness of prices and rates for supplies of raw materials, industrial gas and other utilities, the Company is a party to long-term agreements and other arrangements with suppliers, including Equistar, for a substantial portion of its production requirements. For additional discussion regarding the effects of raw material pricing on recent operating performance, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Marketing and Sales

In 2002, most of the segment's revenues were derived from sales to, or processing agreements with, unrelated parties. In 2002, no single customer accounted for 10% or more of Lyondell's total revenues.

The intermediate chemicals and derivatives business segment delivers products through sales agreements, processing agreements and spot sales as well as product exchanges. Production levels at Lyondell's PO/SM and PO/TBA co-product production facilities are determined by the demand for PO and PO derivatives. The resulting production levels of co-products SM and MTBE thus depend primarily on the demand for PO and PO derivatives and secondarily on the relative market demand for SM and MTBE and the operational flexibility of Lyondell's multiple production facilities in meeting this demand.

Lyondell purchases SM and MTBE for resale, when necessary, to satisfy customer demand for these co-products above co-product production levels. Lyondell has also purchased SM for resale to satisfy its customer requirements prior to start up of its new PO/SM plant in The Netherlands. Volumes of SM and MTBE purchases made for resale can vary significantly from period to period. However, purchased volumes have not historically had a significant impact on profitability.

The segment has a number of multi-year PO processing (or tolling) and sales agreements. This reflects an effort to mitigate the adverse impact of competitive factors and economic business cycles on demand for the segment's PO. In addition, Bayer's ownership interest in the PO Joint Venture represents ownership of an in-kind portion of the PO production of the PO Joint Venture. See "Joint Ventures and Other Agreements."

The majority of the segment's PO derivatives are sold through market-based sales contracts under annual or multi-year arrangements.

Lyondell sells most of its SM production into the North American merchant market and to export markets through long-term sales contracts and processing agreements. See "Joint Ventures and Other Agreements."

During 2002 and prior years, the Company sold MTBE pursuant to a take-or-pay MTBE sales contract with Atlantic Richfield Company ("ARCO"), now wholly owned by BP p.l.c. ("BP"). Sales pursuant to this contract represented approximately 14% of Lyondell's 2002 worldwide MTBE sales volumes. The contract provided for formula-based prices, which have been significantly higher than market prices, and expired December 31, 2002. In addition, during 2002 and prior years, the Company also sold its MTBE production under market-based sales agreements, including multi-year agreements, and in the spot market. The Company anticipates that the MTBE production previously sold under the expired MTBE sales contract with BP referenced above will be sold under market-based annual sales contracts and in the spot market. For additional discussion regarding the effects of the expiration of the MTBE sales contract with BP, see Item 7a. "Disclosure of Market and Regulatory Risk-Regulatory Risk."

The Company's sales agreements with unrelated parties for methanol typically contain automatic one-year term extension provisions. The agreements also generally provide monthly price adjustments based on current market prices. Lyondell sold its U.S. distributor sales agreements to Southern Garrett LLC, effective October 2002. Lyondell will assign its larger volume sales agreements with its North American methanol customers to Methanex, effective January 1, 2004. Methanol sales agreements that are not assigned to Methanex will be terminated by December 31, 2003. Subject to product availability and market conditions, it is the Company's intent to shutdown its methanol production in 2004. If the Company continues to manufacture methanol in 2004, Methanex will purchase 100% of Lyondell's methanol production at cost-based prices in 2004.

The segment's sales are made by Company marketing and sales personnel and through distributors and independent agents located in the Americas, Europe, the Middle East, Africa and the Asia Pacific region. The Company has centralized certain sales and order fulfillment functions in regional customer service centers located in Houston, Texas; Rotterdam, The Netherlands; Hong Kong, China and Sao Paulo, Brazil. Lyondell also has long-term contracts for distribution and logistics to ensure reliable and efficient supply to its customers.

For data relating to non-U.S. operations, see Note 22 of Notes to Consolidated Financial Statements.

Joint Ventures and Other Agreements

On March 31, 2000, Lyondell contributed its Channelview, Texas PO/SM I plant and its Bayport, Texas PO/TBA plants to the PO Joint Venture. Bayer's ownership interest in the PO Joint Venture represents ownership of an in-kind portion of the PO production. Bayer's share of PO production from the PO Joint Venture will increase from approximately 1.5 billion pounds in 2002 to approximately 1.6 billion pounds annually in 2004 and thereafter. Lyondell takes in-kind the remaining PO production and all co-product (SM and TBA) production from the PO Joint Venture. As part of the transaction, Lyondell and Bayer also formed the separate PO Technology Joint Venture through which Bayer was granted a non-exclusive and non-transferable right to use certain PO technology in the PO Joint Venture. Under the terms of the operating and logistics agreements, Lyondell operates the PO Joint Venture plants and arranges and coordinates the logistics of PO delivery from the plants. Lyondell and Bayer also have formed a separate joint venture for the construction of PO-11 near Rotterdam, The Netherlands with an expected startup date during the second half of 2003. Lyondell and Bayer each have a 50% share in the PO-11 Joint Venture, pursuant to which they each will take in-kind 50% of the PO and SM production of the PO-11 Joint Venture. Lyondell and Bayer do not share marketing or product sales under either the PO Joint Venture or PO-11 Joint Venture.

Lyondell's PO/SM II plant at the Channelview, Texas complex is owned by the Company together with third-party equity investors. The Company retains a majority interest in the PO/SM II plant and is the operator of the plant. A portion of the SM output of the PO/SM II plant is committed to the third-party investors under long-term processing agreements. As of December 31, 2002, the Company had 1.1 billion pounds of SM capacity, or 30% of its worldwide capacity, committed to third party investors under long-term processing arrangements.

The Company currently has a 50% equity interest in Nihon Oxirane, a joint venture with Sumitomo. Since 1976, Nihon Oxirane has operated a PO/SM plant in Chiba, Japan. Lyondell and Sumitomo conduct joint research

and development programs under various agreements in connection with Nihon Oxirane. In January 1995, ARCO Chemical entered into agreements with Rhodia covering the entire TDI output of Rhodia's Pont de Claix and Lille plants in France. Since the completion of an expansion at the end of 2001, all of the TDI that Lyondell receives from Rhodia comes from the Pont de Claix plant, which is designed to have a more efficient cost structure by introducing Lyondell's proprietary technology for TDI. Lyondell's average minimum TDI purchase commitment under the revised tolling agreement is approximately 200 million pounds of TDI per year. The revised tolling agreement has been extended through 2016. The agreement that covered TDI output from Rhodia's Lille plant expired December 31, 2001. The TDI that Lyondell purchases from Rhodia is marketed principally in Europe, the Middle East, Africa and Asia. Lyondell purchases toluene diamine ("TDA"), a precursor of TDI, from Rhodia's Lille plant pursuant to an agreement that expires December 31, 2005. Under the agreement, Lyondell can purchase up to a maximum of approximately 70 million pounds of TDA per year. The TDA that Lyondell purchases from the Lille plant is used in the production of the TDI that Lyondell purchases from the Pont de Claix plant.

Competition and Industry Conditions

Competition within the intermediate chemicals and derivatives business is significant and is based on a variety of factors, including quality, product price, reliability of supply, technical support, customer service and potential substitute materials. Profitability in this segment is affected by the worldwide level of demand along with vigorous price competition, which may intensify due to, among other things, new industry capacity. Demand is a function of economic growth in the United States and elsewhere in the world, which fluctuates. It is not possible to predict accurately the changes in raw material costs, market conditions and other factors that will affect industry margins in the future. Capacity share figures for this segment and its competitors, discussed below, are based on completed production facilities and, where appropriate, include the full capacity of joint-venture facilities and certain long-term supply agreements.

The Company's major worldwide PO competitors are The Dow Chemical Company ("Dow") and Shell Chemical Company ("Shell"). Dow's operations are based on chlorohydrin technology. Shell utilizes a proprietary PO/SM technology. Based on published data relating to the PO market, including the PO Joint Venture's total capacity, the Company believes it owns and/or operates approximately 29% of the total worldwide capacity for PO.

Approximately 1.1 billion pounds of new industry PO capacity, or nearly 10% of existing worldwide capacity, was added in 2000, primarily in Europe. In addition, Shell and BASF AG ("BASF"), as 50/50 partners, commissioned a PO/SM plant in Singapore in July 2002, and reached full production by year-end. Lyondell and Bayer expect PO-11, near Rotterdam, The Netherlands, to start-up during the second half of 2003. The Company also is cooperating with Sumitomo on the commercialization of new PO technology, including Sumitomo's new plant in Chiba, Japan that is expected to begin production in the second quarter of 2003. PO and derivatives markets continue to be adversely affected by excess capacity as a result of recent capacity additions, which have not yet been fully absorbed by demand growth.

The Company both manufactures and has long-term tolling agreements for TDI. The Company competes with many TDI producers worldwide, including BASF, Bayer and Dow. Based on published data regarding TDI capacity and including the capacity committed to the Company under agreement with Rhodia, the Company believes it is the second largest producer of TDI worldwide and has approximately 16% of total worldwide capacity.

The Company competes with many MTBE producers worldwide, the most significant of which is Saudi Arabia Basic Industries Corp. ("SABIC"). Based on published data regarding MTBE capacity, the Company believes that, combined with Equistar, it is the largest producer of MTBE worldwide. MTBE also faces competition from substitute products such as ethanol as well as other octane components. See "Certain Factors That May Affect Lyondell And Its Joint Ventures—Environmental Matters."

The Company competes with several SM producers worldwide, among which are BASF, BP, Chevron Phillips Chemical Company LP ("Chevron Phillips"), Shell and TotalFinaElf. Based on published data regarding SM capacity, the Company believes that it is the third largest producer of SM worldwide.

Properties

The Company leases its corporate offices located in Houston, Texas. Lyondell also maintains a research facility in Newtown Square, Pennsylvania, which is leased. The Company's European headquarters are located in leased facilities in Maidenhead, England, and its Asia Pacific headquarters are located in leased facilities in Hong Kong. The regional customer service center for Europe, the Middle East and Africa is located in leased facilities in Rotterdam, The Netherlands.

Depending on location and market needs, the Company's production facilities can receive primary raw materials by pipeline, railcar, truck, barge or ship and can deliver finished products by pipeline, railcar, truck, barge, isotank, ship or in drums. The Company charters ships, owns and charters barges and leases isotanks and railcars for the dedicated movement of products between plants, products to customers or terminals, or raw materials to plants, as necessary. The Company leases liquid and bulk storage and warehouse facilities at terminals in the Americas, Europe and the Asia Pacific region. In the Rotterdam outer harbor area, the Company owns and operates an on-site butane storage tank, propylene spheres, pipeline connections and a jetty that accommodates deep-draft vessels.

The principal manufacturing facilities of the segment are set forth below. These facilities are wholly owned by Lyondell unless otherwise noted.

<u>Location</u>	<u>Principal Products</u>
Bayport (Pasadena), Texas (a).....	PO, PG, PGE, TBA, isobutylene
Channelview, Texas (a)(b).....	PO, BDO, SM, MTBE
Lake Charles, Louisiana.....	TDI
Fos-sur-Mer, France (c).....	PO, PG, TBA, MTBE
Botlek, Rotterdam, The Netherlands (d).....	BDO
Botlek, Rotterdam, The Netherlands (e).....	PO, PG, PGE, TBA, MTBE, isobutylene
Chiba, Japan (f).....	PO, SM

- (a) The Bayport PO/TBA plants and the Channelview PO/SM I plant are held by the PO Joint Venture.
- (b) Unaffiliated equity investors hold a minority ownership interest in the PO/SM II plant at Lyondell's Channelview facility. LMC, wholly owned by Lyondell, owns a methanol plant located within Equistar's Channelview complex on property leased from Equistar.
- (c) The land is leased.
- (d) The land is leased. The facility is leased pursuant to an operating lease described in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition—Liquidity and Capital Resources."
- (e) The land is leased.
- (f) The PO/SM plant located in Chiba, Japan is owned by Nihon Oxirane, a joint venture of which the Company currently owns a 50% interest.

Research and Technology; Patents and Trademarks

Lyondell conducts research and development principally at its Newtown Square, Pennsylvania technical center. The Company's research and development expenditures were \$30 million for 2002, \$32 million for 2001 and \$35 million for 2000, all of which were expensed as incurred.

The Company maintains an extensive patent portfolio related to its intermediate chemicals and derivatives business, and continues to grow its patent portfolio by filing new patent applications in the United States and other countries. As of December 31, 2002, Lyondell owned 362 United States patents and 1,130 worldwide patents. Lyondell has numerous trademark and trademark registrations in the United States and other countries, including the Lyondell logo. The Company does not regard its business as being materially dependent upon any single patent or trademark.

Employee Relations

On December 31, 2002, Lyondell had approximately 3,350 full-time employees, approximately 950 of whom were located in Europe, approximately 50 of whom were located in Asia and approximately 15 of whom were located in Latin America. As of December 31, 2002, approximately 19% of the U.S. employees were represented by labor unions. Lyondell also uses the services of independent contractors in the routine conduct of its business. The Company believes its relations with its employees are good.

Equistar, the operations of which are managed by Lyondell, employed approximately 3,400 full-time employees as of December 31, 2002. LCR employed approximately 1,000 full-time employees as of December 31, 2002. See "Equistar Employee Relations" and "LYONDELL-CITGO Refining LP—Employee Relations."

EQUISTAR CHEMICALS, LP

Management of Equistar

Equistar is a limited partnership organized under the laws of the State of Delaware. Each owner holds its interest in Equistar through wholly owned subsidiaries, one of which serves as a general partner of Equistar and one or more of which serves as a limited partner. From May 1998 until August 2002, Equistar's owners were subsidiaries of each of Lyondell, Millennium and Occidental, with Lyondell owning a 41% interest in Equistar, and each of Millennium and Occidental owning a 29.5% interest in Equistar. On August 22, 2002, Lyondell purchased Occidental's 29.5% interest in Equistar. As a result, Lyondell owns a 70.5% interest in Equistar, and Millennium owns the remaining 29.5% interest in Equistar. Lyondell and Equistar have implemented an agreement (the "Shared Services Agreement") to share office space and utilize shared services over a broad range. See "Agreements Between Lyondell and Equistar" for more information regarding transactions between Lyondell and Equistar.

The Amended and Restated Partnership Agreement of Equistar (the "Equistar Partnership Agreement") governs, among other things, ownership, cash distributions, capital contributions and management of Equistar. The Equistar Partnership Agreement provides that Equistar is governed by a Partnership Governance Committee, consisting of six representatives, three appointed by each general partner. Matters requiring approval by two or more of the representatives of each of Lyondell and Millennium include changes in the scope of Equistar's business, the five-year strategic plan (and annual updates thereof), the sale or purchase of assets or capital expenditures of more than \$30 million not contemplated by the strategic plan, capital contributions to Equistar by Equistar's owners over certain amounts, merging or combining with another business and certain other matters. All decisions of the Partnership Governance Committee that do not require at least two of the three representatives of each of Lyondell and Millennium may be made by Lyondell's representatives alone, except in situations where Lyondell has a conflict. In situations where Lyondell has a conflict, decisions are made by the representatives of Millennium. The day-to-day operations of Equistar are managed by the officers of Equistar. Dan F. Smith, the President and Chief Executive Officer of Lyondell, also serves as Chief Executive Officer of Equistar.

EQUISTAR PETROCHEMICALS

Overview

Petrochemicals are fundamental to many segments of the economy, including the production of consumer products, housing and automotive components and other durable and nondurable goods. Equistar produces a variety of petrochemicals, including olefins, oxygenated products, aromatics and specialty products, at eleven facilities located in five states. Olefins include ethylene, propylene and butadiene. Oxygenated products include EO and derivatives, EG, ethanol, and MTBE. Aromatics produced are benzene and toluene. Equistar's petrochemical products are used to manufacture polymers and intermediate chemicals, which are used in a variety of consumer and industrial products. Ethylene is the most significant petrochemical in terms of worldwide production volume and is the key building block for polyethylene and a large number of other chemicals, plastics and synthetics.

The Chocolate Bayou, Corpus Christi and two Channelview, Texas olefins plants use petroleum liquids, including naphtha, condensates and gas oils, to produce ethylene. The use of petroleum liquids results in the production of a significant amount of co-products such as propylene, butadiene, benzene and toluene, and specialty products, such as dicyclopentadiene ("DCPD"), isoprene, resin oil and piperlyenes. Based upon independent third-party surveys, management believes that its Channelview facility is one of the lowest cash production cost olefins facilities in the United States. Equistar's Morris, Illinois; Clinton, Iowa; Lake Charles, Louisiana; and LaPorte, Texas plants are designed to consume primarily natural gas liquids, including ethane, propane and butane (collectively "NGLs"), to produce ethylene with some co-products such as propylene. The Corpus Christi and Channelview plants also may consume NGL's to produce ethylene, depending upon the relative economic advantage of the alternative raw materials. A comprehensive pipeline system connects the Gulf Coast plants with major olefins customers. Raw materials are sourced both internationally and domestically and are shipped via vessel and pipeline. Equistar's Lake Charles, Louisiana facility has been idled since the first quarter of 2001. Olefins accounted for approximately 59% of Equistar's total revenues in 2002, 60% in 2001 and 63% in 2000.

Equistar produces EO and its primary derivative, EG, at facilities located in Bayport (Pasadena), Texas and through a 50/50 joint venture with DuPont in Beaumont, Texas. The Bayport facility also produces other derivatives of EO, principally ethers and ethanolamines. EG is used in antifreeze, polyester fibers, resins and films. EO and its derivatives are used in many consumer and industrial end uses, such as detergents and surfactants, brake fluids and polyurethane seating and bedding foams.

Equistar produces synthetic ethanol at its Tuscola, Illinois plant by a direct hydration process that combines water and ethylene. Equistar also owns and operates a facility in Newark, New Jersey for denaturing ethanol by the addition of certain chemicals. In addition, it produces small volumes of diethyl ether, a by-product of its ethanol production, at its Tuscola facility. These ethanol products are ingredients in various consumer and industrial products as described more fully in the table below. In March 2002, Equistar permanently shut down its Anaheim, California ethanol denaturing facility.

The following table outlines Equistar's primary petrochemical products, annual processing capacity as of January 1, 2003, and the primary uses for such products. Unless otherwise specified, annual processing capacity was calculated by estimating the number of days in a typical year that a production unit of a plant is expected to operate, after allowing for downtime for regular maintenance, and multiplying that number by an amount equal to the unit's optimal daily output based on the design raw material mix. Because the processing capacity of a production unit is an estimated amount, actual production volumes may be more or less than the capacities set forth below. Capacities shown represent 100% of the capacity of Equistar, of which Lyondell owns 70.5%.

<u>Product</u>	<u>Annual Capacity</u>	<u>Primary Uses</u>
<u>OLEFINS:</u>		
Ethylene	11.6 billion pounds (a)	Ethylene is used as a raw material to manufacture polyethylene, EO, ethanol, ethylene dichloride and ethylbenzene.
Propylene	5 billion pounds (a)(b)	Propylene is used to produce polypropylene, acrylonitrile and propylene oxide.
Butadiene	1.2 billion pounds	Butadiene is used to manufacture styrene-butadiene rubber and polybutadiene rubber, which are used in the manufacture of tires, hoses, gaskets and other rubber products. Butadiene is also used in the production of paints, adhesives, nylon clothing, carpets and engineered plastics.
<u>OXYGENATED PRODUCTS:</u>		
Ethylene Oxide (EO)	1.1 billion pounds ethylene oxide equivalents; 400 million pounds as pure ethylene oxide	EO is used to produce surfactants, industrial cleaners, cosmetics, emulsifiers, paint, heat transfer fluids and ethylene glycol.
Ethylene Glycol (EG)	1 billion pounds	EG is used to produce polyester fibers and film, polyethylene terephthalate ("PET") resin, heat transfer fluids and automobile antifreeze.
Ethylene Oxide Derivatives	225 million pounds	EO derivatives are used to produce paint and coatings, polishes, solvents and chemical intermediates.
Ethanol	50 million gallons	Ethanol is used in the production of solvents as well as household, medicinal and personal care products.
MTBE	284 million gallons (18,500 barrels/day) (c)	MTBE is a gasoline component for reducing emissions in reformulated gasolines and enhancing octane value.
<u>AROMATICS:</u>		
Benzene	310 million gallons	Benzene is used to produce styrene, phenol and cyclohexane. These products are used in the production of nylon, plastics, rubber and polystyrene. Polystyrene is used in insulation, packaging and drink cups.
Toluene	66 million gallons	Toluene is used as an octane enhancer in gasoline, as a chemical feedstock for benzene and/or paraxylene production, and a core ingredient in TDI, a compound used in urethane production.
<u>SPECIALTY PRODUCTS:</u>		
Dicyclopentadiene (DCPD)	130 million pounds	DCPD is a component of inks, adhesives and polyester resins for molded parts such as tub and shower stalls and boat hulls.
Isoprene	145 million pounds	Isoprene is a component of premium tires, adhesive sealants and other rubber products.
Resin Oil	150 million pounds	Resin oil is used in the production of hot-melt-adhesives, inks, sealants, paints and varnishes.
Piperylenes	100 million pounds	Piperylenes are used in the production of adhesives, inks and sealants.
Alkylate	337 million gallons (d)	Alkylate is a premium gasoline blending component used by refiners to meet Clean Air Act standards for reformulated gasoline.
Diethyl Ether	5 million gallons	Diethyl ether is used in laboratory reagents, gasoline and diesel engine starting fluid, liniments, analgesics and smokeless gunpowder.

(a) Includes 850 million pounds/year of ethylene capacity and 200 million pounds/year of propylene capacity at Equistar's Lake Charles, Louisiana facility. Equistar's Lake Charles facility has been idled since the first quarter of 2001.

(b) Does not include refinery-grade material or production from the product flexibility unit at Equistar's Channelview facility, which can convert ethylene and other light petrochemicals into propylene. This facility has an annual processing capacity of one billion pounds per year of propylene.

(c) Includes up to 44 million gallons/year of capacity processed by Equistar for LCR and returned to LCR.

(d) Includes up to 172 million gallons/year of capacity processed by Equistar for LCR and returned to LCR.

Raw Materials

The raw materials cost for olefins production is the largest component of total cost for the petrochemicals business. Olefins plants with the flexibility to consume a wide range of raw materials historically have had lower variable costs than olefins plants that are restricted in their raw material processing capability to NGLs. The primary raw materials used in the production of olefins are petroleum liquids (also referred to as "heavy raw materials") and NGLs (also referred to as "light raw materials"). Petroleum liquids generally are delivered by ship or barge. NGLs are delivered to Equistar's facilities primarily via pipeline. Petroleum liquids have had a historical cost advantage over NGLs such as ethane and propane, assuming the co-products were recovered and sold. For example, facilities using petroleum liquids historically have generated approximately four cents additional variable margin on average per pound of ethylene produced compared to using ethane. This margin advantage is based on an average of historical data over a period of years and is subject to short-term fluctuations, which can be significant. During the second half of 2001 and in 2002, the advantage has been significantly less than the historical average. Equistar has the capability to realize this margin advantage due to its ability to process petroleum liquids at the Channelview, Corpus Christi and Chocolate Bayou, Texas facilities.

The Channelview facility is particularly flexible because it can process 100% petroleum liquids or up to 80% NGLs. The Corpus Christi plant can process up to 70% petroleum liquids or up to 70% NGLs. The Chocolate Bayou facility processes 100% petroleum liquids. Equistar's LaPorte facility can process natural gasoline and NGLs, including heavier NGLs such as butane. Equistar's three other olefins facilities currently process only NGLs.

As described above, Equistar believes that its raw material flexibility is a key advantage in the production of olefins. As a result, although the majority of Equistar's petroleum liquids requirements are purchased via contractual arrangements from a variety of domestic and international sources, Equistar also purchases petroleum liquids on the spot market from domestic and international sources in order to maintain its raw material flexibility and to take advantage of raw material pricing opportunities. Similarly, Equistar purchases a majority of its NGLs requirements via contractual arrangements from a variety of sources, but also purchases NGLs on the spot market. Equistar also obtains a portion of its petroleum liquids requirements from LCR at market-related prices. Equistar purchases all of its methanol requirements from Lyondell and its subsidiaries at a mix of cost-based and market-based prices. Also, Equistar purchases large amounts of natural gas to be used as energy for consumption in its business via market-based contractual arrangements with a variety of sources.

Equistar's raw materials are, in general, commodity chemicals with numerous bulk suppliers and ready availability at competitive prices. Historically, raw material availability has not been an issue for Equistar's petrochemicals business segment. For additional discussion regarding the effects of raw material pricing on recent operating performance, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Marketing and Sales

Ethylene produced by the Clinton and Morris facilities generally is consumed as a raw material by the polymers operations at those sites, or is transferred to Tuscola from Morris by pipeline for the production of ethanol. Ethylene produced by Equistar's LaPorte facility is consumed as a raw material by Equistar's polymers operations and Millennium's vinyl acetate operations in LaPorte and also is distributed by pipeline for other internal uses and to third parties. Ethylene and propylene produced at the Channelview, Chocolate Bayou, Corpus Christi and Lake Charles olefins plants are generally distributed by pipeline or via exchange agreements to Equistar's Gulf Coast polymer and EO and EG facilities as well as to Equistar's affiliates and third parties. Equistar's Lake Charles facility has been idled since the first quarter of 2001. For the year ended December 31, 2002, approximately 93% of Equistar's ethylene production, based on sales dollars, was consumed by Equistar's polymers or oxygenated products businesses or sold to Equistar's owners and their affiliates at market-related prices.

With respect to sales to unaffiliated parties, Equistar sells a majority of its olefins products to customers with whom it has had long-standing relationships. These sales generally are made under written agreements that typically provide for monthly negotiation of price; customer purchases of a specified minimum quantity; and three- to six-year terms with automatic one- or two-year term extension provisions. Some contracts may be terminated early if

deliveries have been suspended for several months. No single customer accounted for 10% or more of Equistar's total revenues in 2002.

EO and EG typically are sold under three- to five-year contracts, with monthly pricing based on current market conditions. Lyondell provides sales services for Equistar outside of North America for EO derivatives. Glycol ethers are sold primarily into the solvent and distributor markets at current market prices, as are ethanolamines and brake fluids. Ethanol and ethers primarily are sold under one-year contracts at market prices.

Equistar licenses MTBE technology under a license from a subsidiary of Lyondell and sells a significant portion of MTBE produced at one of its two Channelview units to Lyondell at market-related prices. The production from the second unit is processed by Equistar and returned to LCR for gasoline blending. MTBE produced at Chocolate Bayou is sold at market-related prices to Lyondell for resale.

Equistar sells most of its aromatics production under contracts that have initial terms ranging from one to three years and that typically contain automatic one-year term extension provisions. These contracts generally provide for monthly price adjustments based upon current market prices. Benzene produced by LCR is sold directly to Equistar at market-related prices. Equistar currently serves as LCR's sole agent to market toluene produced by LCR.

Equistar at times purchases ethylene, propylene, benzene and butadiene for resale, when necessary, to satisfy customer demand for these products above production levels. Volumes of ethylene, propylene, benzene and butadiene purchases made for resale can vary significantly from period to period. However, purchased volumes do not have a significant impact on profitability.

Most of the ethylene and propylene production of the Channelview, Chocolate Bayou, Corpus Christi and Lake Charles facilities is shipped via a 1,430-mile pipeline system which has connections to numerous Gulf Coast ethylene and propylene consumers. This pipeline system, some of which is owned and some of which is leased by Equistar, extends from Corpus Christi to Mont Belvieu to Port Arthur, Texas as well as around the Lake Charles, Louisiana area. In addition, exchange agreements with other olefins producers allow access to customers who are not directly connected to Equistar's pipeline system. Some ethylene is shipped by railcar from Clinton, Iowa to Morris, Illinois. A pipeline owned and operated by a third party is used to transport ethylene from Morris, Illinois to Tuscola, Illinois. Some propylene is shipped by ocean-going vessel. Ethylene oxide is shipped by railcar, and its derivatives are shipped by railcar, truck, isotank or ocean-going vessel. Butadiene, aromatics and other petrochemicals are distributed by pipeline, railcar, truck, barge or ocean-going vessel.

Competition and Industry Conditions

The bases for competition in Equistar's petrochemicals products are price, product quality, product deliverability and customer service. Equistar competes with other large domestic producers of petrochemicals, including BP, Chevron Phillips, Dow, Exxon Mobil Corporation ("ExxonMobil"), Huntsman Chemical Company, NOVA Chemicals Corporation ("NOVA Chemicals") and Shell. Industry consolidation, including the combinations of British Petroleum and Amoco, Exxon and Mobil, and Dow and Union Carbide Corporation and the formation of Chevron Phillips, has brought North American production capacity under control of fewer, although larger and stronger, competitors.

Equistar's combined rated ethylene capacity at January 1, 2003 was approximately 11.6 billion pounds of ethylene per year, or approximately 15% of total North American production capacity. Based on published rated production capacities, Equistar believes it is currently the second largest producer of ethylene in North America. North American ethylene rated capacity at January 1, 2003 was approximately 79 billion pounds per year. Approximately 78% of the total ethylene production capacity in North America is located along the Gulf Coast.

Petrochemicals profitability is affected by raw materials costs and the level of demand for petrochemicals and derivatives, along with vigorous price competition among producers which may intensify due to, among other things, the addition of new capacity. Ethylene markets continue to be affected by excess capacity as a result of recent capacity additions, which have not yet been absorbed by demand growth. In general, demand is a function of economic growth in the United States and elsewhere in the world, which fluctuates. It is not possible to predict accurately the changes in raw material costs, market conditions and other factors that will affect petrochemical

industry margins in the future. The petrochemicals industry historically has experienced significant volatility in profitability due to fluctuations in capacity utilization.

Equistar's other major commodity chemical products also experience cyclical market conditions similar to, although not necessarily coincident with, those of olefins.

EQUISTAR POLYMERS

Overview

Through facilities located at nine plant sites in four states, Equistar's polymers segment manufactures a wide variety of polyolefins, including polyethylene, polypropylene and various performance polymers. Polyolefins are used in a variety of consumer and industrial products, including packaging film, trash bags, automotive parts, plastic bottles and caps and compounds for wire and cable insulation.

Equistar currently manufactures polyethylene using a variety of technologies at five facilities in Texas and at its Morris, Illinois and Clinton, Iowa facilities. The Morris and Clinton facilities enjoy a freight cost advantage over Gulf Coast producers in delivering products to customers in the U.S. Midwest and on the East Coast of the United States. Polyethylene accounted for approximately 27% of Equistar's total revenues in 2002, 27% in 2001 and 26% in 2000.

Equistar produces performance polymer products, which include enhanced grades of polyethylene and polypropylene, at several of its polymers facilities. The Company believes that, over a business cycle, average selling prices and profit margins for performance polymers tend to be higher than average selling prices and profit margins for higher-volume commodity polyethylenes. Equistar also produces wire and cable insulating resins and compounds at LaPorte, Texas; and Morris, Illinois, and wire and cable insulating compounds at Fairport Harbor, Ohio; and Tuscola, Illinois. Wire and cable insulating resins and compounds are used to insulate copper and fiber optic wiring in power, telecommunication, computer and automobile applications. In August 2002, Equistar permanently shut down its Peachtree City, Georgia wire and cable insulating compounds facility. Equistar's Morris, Illinois and Bayport (Pasadena), Texas facilities manufacture polypropylene using propylene produced as a co-product of Equistar's ethylene production as well as propylene purchased from unaffiliated parties. Polypropylene is sold for various applications in the automotive, housewares and appliance industries.

The following table outlines Equistar's polymers and performance polymers products, annual processing capacity at January 1, 2003, and the primary uses for such products. Unless otherwise specified, annual processing capacity was calculated by estimating the number of days in a typical year that a production unit of a plant is expected to operate, after allowing for downtime for regular maintenance, and multiplying that number by an amount equal to the unit's optimal daily output based on the design raw material mix. Because the processing capacity of a production unit is an estimated amount, actual production volumes may be more or less than the capacities set forth below. Capacities shown represent 100% of the capacity of Equistar, of which Lyondell owns 70.5%.

<u>Product</u>	<u>Annual Capacity</u>	<u>Primary Uses</u>
<u>POLYETHYLENE:</u>		
High density polyethylene (HDPE)	3.1 billion pounds	HDPE is used to manufacture grocery, merchandise and trash bags; food containers for items from frozen desserts to margarine; plastic caps and closures; liners for boxes of cereal and crackers; plastic drink cups and toys; dairy crates; bread trays; pails for items from paint to fresh fruits and vegetables; safety equipment such as hard hats; house wrap for insulation; bottles for household and industrial chemicals and motor oil; milk, water, and juice bottles; and large (rotomolded) tanks for storing liquids such as agricultural and lawn care chemicals.
Low density polyethylene (LDPE)	1.5 billion pounds	LDPE is used to manufacture food packaging films; plastic bottles for packaging food and personal care items; dry cleaning bags; ice bags; pallet shrink wrap; heavy-duty bags for mulch and potting soil; boil-in-bag bags; coatings on flexible packaging products; and coatings on paper board such as milk cartons. Ethylene vinyl acetate is a specialized form of LDPE used in foamed sheets, bag-in-box bags, vacuum cleaner hoses, medical tubing, clear sheet protectors and flexible binders.
Linear low density polyethylene (LLDPE)	1.1 billion pounds	LLDPE is used to manufacture garbage and lawn-leaf bags; industrial can liners; housewares; lids for coffee cans and margarine tubs, dishpans, home plastic storage containers, kitchen trash containers; large (rotomolded) toys like outdoor gym sets; drip irrigation tubing; protective coating for telephone wires, and film; shrink wrap for multi-packaging canned food, bag-in-box bags, produce bags, and pallet stretch wrap.
<u>POLYPROPYLENE:</u>		
Polypropylene	680 million pounds	Polypropylene is used to manufacture fibers for carpets, rugs and upholstery; housewares; automotive battery cases; automotive fascia, running boards and bumpers; grid-type flooring for sports facilities; fishing tackle boxes; and bottle caps and closures.
<u>PERFORMANCE POLYMERS:</u>		
Wire and Cable Insulating Resins and Compounds	(a)	Wire and cable insulating resins and compounds are used to insulate copper and fiber optic wiring in power, telecommunication, computer and automobile applications.
Polymeric Powders	(a)	Polymeric powders are component products in structural and bulk molding compounds, parting agents and filters for appliance, automotive and plastics processing industries.
Polymers for Adhesives, Sealants and Coatings	(a)	Polymers are components in hot-melt-adhesive formulations for case, carton and beverage package sealing, glue sticks, automotive sealants, carpet backing and adhesive labels.
Reactive Polyolefins	(a)	Reactive polyolefins are functionalized polymers used to bond non-polar and polar substrates in barrier food packaging, wire and cable insulation and jacketing, automotive gas tanks and metal coating applications.

(a) These are enhanced grades of polyethylene and are included in the capacity figures for HDPE, LDPE and LLDPE above, as appropriate.

Raw Materials

The primary raw materials for Equistar's polymers segment are ethylene and propylene. With the exception of the Chocolate Bayou polyethylene plant, Equistar's polyethylene and polypropylene production facilities can receive their ethylene and propylene directly from Equistar's petrochemical facilities via Equistar's olefins pipeline system, by third-party pipelines or from on-site production. Most of the raw materials consumed by Equistar's polymers

segment are produced internally by Equistar's petrochemicals segment. The polyethylene plants at Chocolate Bayou, LaPorte and Bayport, Texas are connected by pipeline to third parties and can receive ethylene via exchanges or purchases. The polypropylene facility at Morris, Illinois also receives propylene from third parties.

Equistar's raw materials are, in general, commodity chemicals with numerous bulk suppliers and ready availability at competitive prices. Historically, raw material availability has not been an issue for Equistar's polymers business segment. For additional discussion regarding the effects of raw material pricing on recent operating results, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Marketing and Sales

Equistar's polymers products are primarily sold to an extensive base of established customers. Approximately 45% of Equistar's polymers products volumes are sold to customers under term contracts, typically having a duration of one to three years. The remainder generally is sold without contractual term commitments. In either case, in most of the continuous supply relationships, prices are subject to change upon mutual agreement between Equistar and the customer. No single customer accounted for 10% or more of Equistar's total revenues in 2002.

Polymers are primarily distributed via railcar. Equistar owns or leases, pursuant to long-term lease arrangements, approximately 7,500 railcars for use in its polymers business. Equistar sells the vast majority of its polymers products in the United States and Canada, and such sales primarily are through its own sales organization. It generally engages sales agents to market its polymers in the rest of the world.

Competition and Industry Conditions

The bases for competition in Equistar's polymers products are price, product performance, product quality, product deliverability and customer service. Equistar competes with other large producers of polymers, including BP Solvay Polyethylene, Chevron Phillips, Dow, Eastman Chemical Company, ExxonMobil, Formosa Plastics, Huntsman Chemical Company, NOVA Chemicals, TotalFinaElf and Westlake Polymers. Industry consolidation, including the combinations of British Petroleum and Amoco, Exxon and Mobil, and Dow and Union Carbide Corporation, the formation of Chevron Phillips, and the polymers business combinations between BP and Solvay, has brought North American production capacity under control of fewer, although larger and stronger, competitors.

Based on published rated industry capacities, Equistar is the third largest producer of polyethylene in North America. Equistar also believes that it is a leading domestic producer of polyolefins powders, wire and cable insulating resins and compounds, and polymers for adhesives. The combined rated capacity of Equistar's polyethylene units as of January 1, 2003 was approximately 5.7 billion pounds per year, or approximately 13% of total industry capacity in North America. There are 15 other North American producers of polyethylene, including BP Solvay Polyethylene, Chevron Phillips, Dow, ExxonMobil and NOVA Chemicals. Equistar's polypropylene capacity, 680 million pounds per year as of January 1, 2003, represents approximately 4% of the total North American polypropylene capacity. There are 12 other North American competitors in the polypropylene business, including ATOFINA, Basell Polyolefins Company N.V., BP, Dow, ExxonMobil and Sunoco, Inc.

Polymers profitability is affected by raw material costs and the worldwide level of demand for polymers, along with vigorous price competition among producers which may intensify due to, among other things, the addition of new capacity. In general, demand is a function of economic growth in the United States and elsewhere in the world, which fluctuates. It is not possible to predict accurately the changes in raw material costs, market conditions and other factors which will affect polymers industry margins in the future.

EQUISTAR PROPERTIES

Equistar's principal manufacturing facilities and principal products are set forth below. All of these facilities are wholly owned by Equistar unless otherwise noted.

<u>Location</u>	<u>Principal Products</u>
Beaumont, Texas (a)*	EG
Channelview, Texas (b)*	Ethylene, Propylene, Butadiene, Benzene, Toluene, DCPD, Isoprene, Resin Oil, Piperylenes, Alkylate and MTBE
Corpus Christi, Texas*	Ethylene, Propylene, Butadiene and Benzene
Chocolate Bayou, Texas (c)*	HDPE
Chocolate Bayou, Texas (c)(d)*	Ethylene, Propylene, Butadiene, Benzene, Toluene, DCPD, Isoprene, Resin Oil and MTBE
LaPorte, Texas*	Ethylene, Propylene, LDPE, LLDPE, Wire and Cable Insulating Resins and Polymers for Adhesives, Sealants and Coatings
Matagorda, Texas*	HDPE
Bayport (Pasadena), Texas (e)*	EO, EG and Other EO Derivatives
Bayport (Pasadena), Texas (e)*	Polypropylene and LDPE
Victoria, Texas (d)*	HDPE
Lake Charles, Louisiana (f)*	Ethylene and Propylene
Morris, Illinois*	Ethylene, Propylene, LDPE, LLDPE and Polypropylene
Tuscola, Illinois*	Ethanol, Diethyl Ether, Wire and Cable Insulating Compounds and Polymeric Powders
Clinton, Iowa*	Ethylene, Propylene, LDPE, HDPE and Reactive Polyolefins
Fairport Harbor, Ohio (g).....	Wire and Cable Insulating Compounds
Newark, New Jersey	Denatured Alcohol

*As of January 1, 2003, facilities which received the OSHA Star Certification, which is the highest safety designation issued by the U. S. Department of Labor.

- (a) The Beaumont facility is owned by PD Glycol, a partnership owned 50% by Equistar and 50% by DuPont.
- (b) The Channelview facility has two ethylene processing units. LMC owns a methanol plant located within the Channelview facility on property LMC leases from Equistar. A third party owns and operates a facility on land leased from Equistar that is used to purify hydrogen from LMC's methanol plant. Equistar also operates a styrene maleic anhydride unit and a polybutadiene unit, which are owned by a third party and are located on property leased from Equistar within the Channelview facility.
- (c) Millennium and Occidental each contributed a facility located in Chocolate Bayou. These facilities are not on contiguous property.
- (d) The land is leased, and the facility is owned.
- (e) Occidental and Lyondell each contributed facilities located in Pasadena. These facilities are nearly contiguous, and Equistar operates them as one site to the extent practicable. These facilities are operated in conjunction with the LaPorte facility.
- (f) The Lake Charles facility has been idled since the first quarter of 2001. The facilities and land are leased from an affiliate of Occidental under a lease that expires in May 2003. See additional discussion below.
- (g) The building and land are leased.

In March 2002, Equistar permanently shut down its Anaheim, California ethanol denaturing facility. In August 2002, Equistar permanently shut down its Peachtree City, Georgia wire and cable insulating compounds facility.

The Lake Charles facility has been idled since the first quarter of 2001. The facility and land are leased from an affiliate of Occidental under a lease that expires in May 2003. The Equistar Partnership Agreement provides that, if the Lake Charles lease terminates, one of the former-Occidental subsidiaries (now owned by Lyondell) that owns a 6.623% interest in Equistar could lose its partnership interest in Equistar and no longer be an owner of Equistar. If that occurs, the agreements entered into in August 2002 between Lyondell and Occidental in connection with Lyondell's purchase of Occidental's interest in Equistar provide that Occidental will either (1) allow Lyondell or, at Lyondell's election, Equistar to acquire, operate or receive the benefit of operating the previously-leased Lake Charles facility, (2) pay Lyondell \$75 million in cash or (3) if the value is greater than \$75 million, transfer or pay to

Lyondell 5.4 million shares of Lyondell common stock or the sale proceeds from 5.4 million shares of Lyondell common stock or a combination of both. The parties are investigating alternatives related to the facility and land, which may include contributing the Lake Charles facility to a partnership owned jointly by Occidental and Equistar.

Equistar owns a storage facility, a tract of land with four brine ponds and a tract of vacant land in Mont Belvieu, Texas, located approximately 15 miles east of the Channelview facility. Storage capacity for up to approximately 13 million barrels of NGLs, ethylene, propylene and other hydrocarbons is provided in caverns within the salt dome at the Mont Belvieu facility. There are an additional 3 million barrels of ethylene and propylene storage and four brine ponds operated by Equistar on leased property in Markham, Texas.

Equistar uses an extensive olefins pipeline system, some of which it owns and some of which it leases, extending from Corpus Christi to Mont Belvieu to Port Arthur and around the Lake Charles area. Equistar owns other pipelines in connection with its Chocolate Bayou, Matagorda, Victoria, Corpus Christi and LaPorte facilities. Equistar uses a pipeline owned and operated by an unaffiliated party to transport ethylene from its Morris facility to its Tuscola facility. Equistar owns and leases several pipelines connecting the Channelview facility, the LCR refinery and the Mont Belvieu storage facility. These pipelines are used to transport feedstocks, butylenes, hydrogen, butane, MTBE and unfinished gasolines. Equistar also owns a barge docking facility near the Channelview facility capable of berthing eight barges and related terminal equipment for loading and unloading raw materials and products. Equistar owns or leases pursuant to long-term lease arrangements approximately 8,900 railcars for use in its petrochemicals and polymers businesses.

Lyondell provides office space to Equistar for its executive offices and headquarters in downtown Houston, Texas as part of the Shared Services Agreement. See "Agreements Between Lyondell and Equistar" below. In addition, Equistar owns facilities, which house the Morris, Cincinnati and Chocolate Bayou research operations. Equistar also leases sales facilities and leases storage facilities, primarily in the Gulf Coast area, from various parties for the handling of products.

AGREEMENTS BETWEEN LYONDELL AND EQUISTAR

Lyondell and Equistar entered into an asset contribution agreement on December 1, 1997 providing for the transfer of assets to Equistar. Among other things, the agreement sets forth representations and warranties by Lyondell with respect to the transferred assets and requires indemnification by Lyondell with respect thereto. The asset contribution agreement with Lyondell also provides for the assumption by Equistar of, among other things, third party claims that are related to certain contingent liabilities arising prior to the contribution transactions that are asserted prior to December 1, 2004, as to Lyondell, to the extent the aggregate thereof does not exceed \$7 million, subject to certain terms of the asset contribution agreement. Millennium Petrochemicals and certain subsidiaries of Occidental entered into similar asset contribution agreements with Equistar with respect to the transfer of their respective assets and Equistar's assumption of liabilities. Lyondell, Millennium and Occidental each remain liable under these indemnification arrangements to the same extent following Lyondell's acquisition of Occidental's interest in Equistar as they were before.

If Lyondell or Millennium or any of their affiliates desires to initiate or pursue any opportunity to undertake, engage in, acquire or invest in a business or activity or operation within the scope of the business of Equistar, the opportunity must first be offered to Equistar as provided in the Equistar Partnership Agreement. Equistar has certain options to participate in the opportunity, but if it determines not to participate, the party offering the opportunity is free to pursue the opportunity on its own. If the opportunity within Equistar's scope of business constitutes less than 25% of an acquisition or investment that is otherwise not within the scope of its business, Lyondell or Millennium, as the case may be, may make the acquisition or investment, provided that the portion within the scope of Equistar's business is offered to Equistar pursuant to the foregoing provisions as provided in the Equistar Partnership Agreement.

Lyondell and Equistar have implemented the Shared Services Agreement to share office space and utilize shared services over a broad range, including information technology, human resources, sales and marketing, raw material supply, supply chain, health, safety and environmental, engineering and research and development, facility services, legal, accounting, treasury, internal audit, and tax. Employee-related and indirect costs are allocated

between the two companies in the manner prescribed in the Shared Services Agreement while direct third party costs, incurred exclusively for either Lyondell or Equistar, are charged directly to that entity. In addition, Lyondell and Equistar have entered into an agreement for Lyondell to provide sales services for Equistar outside of North America for EO derivatives. Equistar and Millennium Petrochemicals also are parties to a number of agreements for the provision of services, utilities and materials from one party to the other at common locations, principally LaPorte, Texas and Cincinnati, Ohio. Equistar leases its Lake Charles facility and the land related thereto from an affiliate of Occidental under a lease that expires in May 2003. The Lake Charles facility has been idled since the first quarter of 2001.

Lyondell, Millennium Petrochemicals and Occidental Chemical each entered into a Master Intellectual Property Agreement and other related agreements with respect to intellectual property with Equistar. These agreements provide for (1) the transfer of certain intellectual property of Lyondell, Millennium Petrochemicals and Occidental Chemical related to the businesses each contributed to Equistar, (2) the grant of irrevocable, non-exclusive, royalty-free licenses to Equistar (without the right to sublicense) with respect to intellectual property retained by Lyondell, Millennium Petrochemicals or Occidental Chemical that is related to Equistar's business and (3) the grant of irrevocable, non-exclusive, royalty-free licenses (without the right to sublicense) from Equistar to Lyondell, Millennium Petrochemicals and Occidental Chemical, respectively, with respect to intellectual property each contributed to Equistar. The Master Intellectual Property Agreements were not materially affected by Lyondell's acquisition of Occidental's interest in Equistar.

Lyondell, Millennium and Equistar are parties to an Amended and Restated Parent Agreement dated as of November 6, 2002, which provides that, among other things, each of Lyondell and Millennium guarantees the performance by their respective subsidiaries under various agreements entered into in connection with the formation of Equistar, including the Equistar Partnership Agreement and the asset contribution agreements providing for the transfer of assets by Lyondell and Millennium Petrochemicals, respectively, to Equistar.

The Equistar Partnership Agreement and the Parent Agreement also provide each owner a right of first option if the other owner wishes to sell its partnership interest or the stock of its partner subsidiaries. These agreements also set forth other limitations on the right to transfer the interests or stock. The Equistar Partnership Agreement and the Parent Agreement were amended and restated as of November 6, 2002 to reflect that Occidental no longer owns an interest in Equistar and to set forth certain continuing obligations of Occidental with respect to Equistar.

EQUISTAR EMPLOYEE RELATIONS

As of December 31, 2002, Equistar employed approximately 3,400 full-time employees. In addition to its own employees, Equistar uses the services of Lyondell employees pursuant to the Shared Services Agreement and also uses the services of independent contractors in the routine conduct of its business. Approximately 5% of Equistar's employees are covered by collective bargaining agreements. Equistar believes that its relations with its employees are good. See "Agreements between Lyondell and Equistar" above.

EQUISTAR RESEARCH AND TECHNOLOGY; PATENTS AND TRADEMARKS

Equistar conducts research and development principally at its Cincinnati, Ohio technical center, with additional facilities located in Morris, Illinois and Chocolate Bayou, Texas. Equistar's research and development expenditures were \$38 million for 2002, \$39 million for 2001 and \$38 million for 2000, all of which were expensed as incurred.

Equistar maintains a growing patent portfolio that is continuously supplemented by new patent applications related to its petrochemicals and polymers businesses. As of December 31, 2002, Equistar owned 229 United States patents and 394 worldwide patents. Equistar has numerous trademarks and trademark registrations in the United States and other countries, including the Equistar logo. Equistar does not regard its business as being materially dependent upon any single patent or trademark.

LYONDELL-CITGO REFINING LP

Overview

Lyondell participates in petroleum refining through an equity interest in LCR. Lyondell holds a 58.75% interest and CITGO holds a 41.25% interest in LCR. LCR owns and operates a refinery (the "Refinery"), which is located on the Houston Ship Channel in Houston, Texas. LCR was formed in 1993 to upgrade the Refinery's ability to process substantial additional volumes of lower cost, extra heavy, higher margin crude oil. As of January 1, 2003, the Refinery's extra heavy crude oil processing capacity was approximately 268,000 barrels per day.

The Refinery is a full conversion refinery designed to run extra heavy (17 degree API), high sulfur crude oil. The 17 degree API gravity crude oil is more viscous and dense than traditional crude oil and contains higher concentrations of sulfur and heavy metals, making it more difficult to refine into gasoline and other high value products but less costly to purchase. Processing extra heavy, high sulfur crude oil in significant quantities requires a refinery with extensive coking, catalytic cracking, hydrotreating and desulfurization capabilities, i.e., a "complex refinery." The Refinery's complexity enables it to operate in full conversion mode producing a slate of products that consists primarily of high value, clean products (many refineries produce significant quantities of lower value products such as conventional gasoline, high sulfur diesel and heavy fuel oil due to a lack of equipment to convert these fuels into premium products). In addition, the Refinery's complexity allows it to produce most of these clean products as premium grades such as reformulated gasoline, jet fuel, low sulfur diesel and aromatics chemicals. The Refinery's products include conventional and reformulated gasoline, low sulfur diesel, jet fuel, aromatics, lubricants (industrial lubricants, white oils and process oils), carbon black oil, sulfur, residual fuel and petroleum coke. Gasoline accounted for approximately 39% of LCR's total revenues in 2002, 37% in 2001 and 39% in 2000. Diesel accounted for approximately 26% of LCR's total revenues in 2002, 23% in 2001 and 23% in 2000. The aromatics chemicals produced by the Refinery are benzene, toluene, orthoxylene and paraxylene. These products are sold to manufacturers of intermediate chemicals and polyester intermediates and are ultimately used in clothing, soft drink bottles and drinking cups, audio and video tapes, and resins.

The following table outlines LCR's primary products, annual rated capacity as of January 1, 2003, and the primary uses for such products. The term "rated capacity," as used in this table, is calculated by estimating the number of days in a typical year that a production unit of a plant is expected to operate, after allowing for downtime for regular maintenance, and multiplying that number by an amount equal to the unit's optimal daily output based on the design feedstock mix. Because the rated capacity of a production unit is an estimated amount, the actual production volumes may be more or less than the rated capacity. Capacities shown represent 100% of the capacity of LCR, of which Lyondell owns 58.75%.

<u>Product</u>	<u>Rated Capacity</u>	<u>Primary Uses</u>
Gasoline (a).....	120,000 barrels per day	Automotive fuel
Diesel (#2 Distillate) (a)....	90,000 barrels per day	Fuel for diesel cars and trucks
Jet Fuel (a)	25,000 barrels per day	Aviation fuel
Benzene (b).....	10 million gallons per year	Nylon for clothing and consumer items; polystyrene for insulation, packaging and drink cups
Toluene (c).....	46 million gallons per year	Gasoline component and chemical feedstock for producing benzene
Paraxylene (d)	400 million pounds per year	Polyester fibers for clothing and fabrics, PET soft drink bottles and films for audio and video tapes
Orthoxylene (d).....	270 million pounds per year	Plasticizer in products such as rainwear, shower curtains, toys and auto upholstery and an intermediate in paints and fiberglass
Lube Oils (a).....	4,000 barrels per day	Automotive and industrial engine and lube oils, railroad engine additives and white oils for food-grade applications

- (a) Produced by LCR and sold to CITGO.
- (b) Produced by LCR and sold to Equistar.
- (c) Produced by LCR and marketed for LCR by Equistar.
- (d) Produced by LCR and marketed for LCR by CITGO.

Management of LCR

LCR is a limited partnership organized under the laws of the state of Delaware. Lyondell owns its interest in LCR through wholly owned subsidiaries, which serve as general partner and limited partner. Similarly, CITGO, which is an indirect wholly owned subsidiary of Petróleos de Venezuela, S.A. ("PDVSA"), the national oil company of the Republic of Venezuela, owns its interest in LCR through wholly owned subsidiaries, which serve as general partner and limited partner.

LCR is governed by a Limited Partnership Agreement (the "LCR Partnership Agreement"), which provides for, among other things, the ownership and cash distribution rights of the partners. The LCR Partnership Agreement also provides that LCR is managed by a Partnership Governance Committee, which is composed of six representatives, three appointed by each general partner. Actions requiring unanimous consent of the representatives include amendment of the LCR Partnership Agreement, borrowing money, delegations of authority to committees, certain purchase commitments and capital expenditures. The day-to-day operations of the Refinery are managed by two general managers, one of which is a loaned employee of Lyondell and the other of which is a loaned employee of CITGO.

Agreements between Lyondell or CITGO and LCR

LCR is a party to a number of agreements with Lyondell and CITGO. Under the terms of a long-term product sales agreement ("Products Agreement"), CITGO purchases from LCR substantially all of the refined products produced at the Refinery. Lyondell and CITGO currently perform administrative services for LCR pursuant to an Administrative Services Agreement, which is renegotiated annually. Under the terms of lubricant sales agreements, CITGO purchases all of the lubricant products manufactured by LCR. In conjunction therewith, CITGO operates LCR's Birmingham, Alabama lubricants plant. In addition, CITGO currently serves as LCR's sole agent to market paraxylene and orthoxylene produced by LCR.

Agreements between Equistar and LCR

Prior to the formation of Equistar, Lyondell was a party with LCR to multiple agreements designed to preserve many of the synergies between the Refinery and the Channelview petrochemicals facility. These agreements were assumed by Equistar from Lyondell effective December 1, 1997. Economic evaluations at the Channelview facility and the Refinery are made to maximize product utilization, which may be local use, use at the other site, or third party sales. Certain Refinery products (propane, butane, low-octane naphthas, heating oils, and gas oils) can be used as raw materials for olefins production, and certain Channelview facility olefins by-products can be processed by the Refinery into gasoline. Butylenes from the Refinery are processed by the Channelview facility and returned to LCR for the production of alkylate and MTBE for gasoline blending. Hydrogen from the Channelview facility is used at the Refinery for sulfur removal and product stabilization. Benzene produced by LCR is sold directly to Equistar at market-related prices. In addition, Equistar currently serves as LCR's sole agent to market toluene produced by LCR. See Note 7 and 8 of Notes to Consolidated Financial Statements.

Raw Materials

In 1993, LCR entered into a long-term crude supply agreement ("Crude Supply Agreement") with Lagoven, S.A., now known as PDVSA Petróleo, S.A. ("PDVSA Oil"), an affiliate of CITGO and of PDVSA. Most of the crude oil used by LCR as a raw material for the Refinery is purchased under the Crude Supply Agreement. Both PDVSA Oil and CITGO are direct or indirect wholly owned subsidiaries of PDVSA.

The Crude Supply Agreement, which expires on December 31, 2017, incorporates formula prices to be paid by LCR for the crude oil supplied based on the market value of a slate of refined products deemed to be produced from each particular crude oil or feedstock, less: (1) certain deemed refining costs, adjustable for inflation and energy costs; (2) certain actual costs; and (3) a deemed margin, which varies according to the grade of crude oil or other feedstock delivered. The actual refining margin earned by LCR may vary from the formula amount depending on, among other things, timing differences in incorporating changes in refined product market values and energy costs into the Crude Supply Agreement's deemed margin calculations and the efficiency with which LCR conducts its operations. Although LCR believes that the Crude Supply Agreement reduces the volatility of LCR's earnings and

cash flows over the long-term, the Crude Supply Agreement also limits LCR's ability to enjoy higher margins during periods when the market price of crude oil is low relative to then-current market prices for refined products. In addition, if the actual yields, costs or volumes of the LCR refinery differ substantially from those contemplated by the Crude Supply Agreement, the benefits of this agreement to LCR could be substantially diminished, and could result in lower earnings and cash flow for LCR. Furthermore, there may be periods during which LCR's costs for crude oil under the Crude Supply Agreement may be higher than might otherwise be available to LCR from other sources. A disparate increase in the price of heavy crude oil relative to the prices for its products has the tendency to make continued performance of its obligations under the Crude Supply Agreement less attractive to PDVSA Oil.

The Crude Supply Agreement provides that Lyondell controls all of LCR's decisions and enforcement rights in connection with the Crude Supply Agreement so long as PDVSA has a direct or indirect ownership interest in LCR. However, there are risks associated with enforcing the provisions of contracts with companies such as PDVSA Oil that are non-United States affiliates of a sovereign nation. All of the crude oil supplied by PDVSA Oil under the Crude Supply Agreement is produced in the Republic of Venezuela, which has experienced economic difficulties and attendant social and political changes and unrest in recent years, including during the recent national strike. It is impossible to predict how governmental policies may change under the current or any subsequent Venezuelan government. In addition, there are risks associated with enforcing judgments of United States courts against entities whose assets are located outside of the United States and whose management does not reside in the United States. Although the parties have negotiated alternative arrangements in the event of certain force majeure conditions, including Venezuelan governmental or other actions restricting or otherwise limiting PDVSA Oil's ability to perform its obligations, any such alternative arrangements may not be as beneficial to LCR as the Crude Supply Agreement. From time to time, the Company and PDVSA have had discussions covering both a restructuring of the Crude Supply Agreement and a broader restructuring of the LCR partnership. The Company is unable to predict whether changes in either arrangement will occur.

If the Crude Supply Agreement is modified or terminated or this source of crude oil is otherwise interrupted, due to production difficulties, political or economic events in Venezuela or other factors, LCR could experience significantly lower earnings and cash flows. Subject to the consent of the other partner and rights of first offer and first refusal, the partners each have a right to transfer their interests in LCR to unaffiliated third parties in certain circumstances. In the event that CITGO were to transfer its interest in LCR to an unaffiliated third party, PDVSA Oil would have an option to terminate the Crude Supply Agreement. Depending on then-current market conditions, any breach or termination of the Crude Supply Agreement, or reduction in supply thereunder, would require LCR to purchase all or a portion of its crude oil in the merchant market, could subject LCR to significant volatility and price fluctuations and could adversely affect LCR and, therefore, Lyondell. There can be no assurance that alternative crude oil supplies with similar margins would be available for purchase by LCR.

Under the Crude Supply Agreement, PDVSA Oil is required to sell, and LCR is required to purchase, 230,000 barrels per day of extra heavy crude oil, which constitutes approximately 86% of the Refinery's refining capacity of 268,000 barrels per day of crude oil. Since April 1998, PDVSA Oil has, from time to time, declared itself in a force majeure situation and subsequently reduced deliveries of crude oil. Such reductions in deliveries were purportedly based on announced OPEC production cuts. PDVSA Oil informed LCR that the Venezuelan government, through the Ministry of Energy and Mines, had instructed that production of certain grades of crude oil be reduced. In certain circumstances, PDVSA Oil made payments under a different provision of the Crude Supply Agreement in partial compensation for such reductions.

In January 2002, PDVSA Oil again declared itself in a force majeure situation and stated that crude oil deliveries could be reduced by up to 20.3% beginning March 1, 2002. Beginning in March 2002, deliveries of crude oil to LCR were reduced to approximately 198,000 barrels per day, reaching a level of 190,000 barrels per day during the second quarter 2002. Crude oil deliveries to LCR under the Crude Supply Agreement increased to the contract level of 230,000 barrels per day during the third quarter 2002, averaging 212,000 barrels per day for the third quarter. Although deliveries increased to contract levels during the third quarter 2002, PDVSA Oil did not revoke its January 2002 force majeure declaration during 2002.

A national strike in Venezuela began in early December 2002 and disrupted deliveries of crude oil to LCR under the Crude Supply Agreement, causing LCR to temporarily reduce operating rates. PDVSA Oil again declared a force majeure and reduced deliveries of crude oil to LCR. LCR compensated for the loss in supply by reducing its

inventories of Crude Supply Agreement crude oil and increasing purchases of crude oil in the merchant market. Recent media reports indicate that the force majeure has been lifted. For additional discussion regarding the effects of the recent political unrest in Venezuela on operating performance, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

LCR has consistently contested the validity of PDVSA Oil's and PDVSA's reductions in deliveries under the Crude Supply Agreement. The parties have different interpretations of the provisions of the contracts concerning the delivery of crude oil. The contracts do not contain dispute resolution procedures, and the parties have been unable to resolve their commercial dispute. As a result, on February 1, 2002, LCR filed a lawsuit against PDVSA and PDVSA Oil in connection with the force majeure declarations. See "Item 3. Legal Proceedings—Litigation Matters."

Marketing and Sales

The Refinery produces gasoline, low sulfur diesel, jet fuel, aromatics, lubricants and certain industrial products. On a weekly basis, LCR evaluates and determines the optimal product output mix for the Refinery, based on spot market prices and conditions. Under the Products Agreement, CITGO is obligated to purchase and LCR is required to sell 100% of the finished gasoline, jet fuel, heating oil, diesel fuel, coke and sulfur produced by the Refinery. CITGO purchases these products at prices based on industry benchmark indexes. For example, the price for gasoline is based on prices published by Platts Oilgram, an industry trade publication. The Products Agreement provides that Lyondell controls all of LCR's material decisions and enforcement rights in connection with the Products Agreement so long as CITGO has a direct or indirect ownership interest in LCR. The Products Agreement expires on December 31, 2017.

Competition and Industry Conditions

All of LCR's finished gasoline, jet fuel, heating oil, diesel fuel, coke, sulfur and lube oils are sold to CITGO at market-related prices.

The refining business tends to be volatile as well as cyclical. However, management believes that the combination of the Crude Supply Agreement and the Products Agreement generally has the effect of stabilizing earnings and cash flows and reducing the market-driven aspects of such volatility over the long-term. Crude oil prices, which are impacted by worldwide political events and the economics of exploration and production in addition to refined products demand, are the largest source of this volatility. Demand for refined products is influenced by seasonal and short-term factors such as weather and driving patterns, as well as by longer term issues such as the economy, energy conservation and alternative fuels. Industry refined products supply is also dependent on industry operating capabilities and on long-term refining capacity trends.

With a capacity of approximately 268,000 barrels per day, the Company believes that the Refinery is North America's largest full conversion (i.e., not producing asphalt or high sulfur heavy fuel) refinery capable of processing 100% 17 API crude oil.

Among LCR's refining competitors are major integrated oil companies and domestic refiners that are owned by or affiliated with major integrated oil companies. Based on published industry data, as of January 1, 2003, there were 133 crude oil refineries in operation in the United States, and total domestic refinery capacity was approximately 16.6 million barrels per day. During 2002, LCR processed an average of 259,000 barrels per day of crude oil or approximately 1.7% of all U.S. crude runs.

Properties

LCR owns the real property, plant and equipment, which comprise the Refinery, located on approximately 700 acres in Houston, Texas. Units include a fluid catalytic cracking unit, cokers, reformers, crude distillation units, sulfur recovery plants and hydrodesulfurization units, as well as a lube oil manufacturing plant and an aromatics recovery unit. LCR also owns the real property, plant and equipment, which comprise a lube oil blending and

packaging plant in Birmingham, Alabama. LCR owns a pipeline used to transport gasoline, kerosene and heating oil from the Refinery to the GATX Terminal located in Pasadena, Texas to interconnect with common carrier pipelines.

Employee Relations

At December 31, 2002, LCR employed approximately 1,000 full-time employees. LCR also uses the services of independent contractors in the routine conduct of its business. Approximately 55% of LCR's employees are covered by a collective bargaining agreement between LCR and the Paper, Allied-Industrial, Chemical and Energy Workers International Union (formerly the Oil, Chemical and Atomic Workers Union), which expires in January 2006. LCR believes that relations with its employees are good.

CERTAIN FACTORS THAT MAY AFFECT LYONDELL AND ITS JOINT VENTURES

There are many factors that may affect the businesses and results of operations of Lyondell and its joint ventures. Some of these factors are discussed below. For additional discussion regarding factors that may affect the businesses and operating results of Lyondell and its joint ventures, see "Items 1 and 2. Business and Properties," "Forward-Looking Statements," "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 7a. Disclosure of Market and Regulatory Risk."

Industry Cyclicity and Overcapacity

The historical operating results of Lyondell and its joint ventures reflect the cyclical and volatile nature of the supply-demand balance in both the chemical and refining industries. These industries historically have experienced alternating periods of inadequate capacity and tight supply, causing prices and profit margins to increase, followed by periods when substantial capacity is added, resulting in oversupply, declining capacity utilization rates and declining prices and profit margins. The cyclicity of these industries results in volatile profits and cash flow over the business cycle.

Currently, there is overcapacity in the chemical industry, as a number of participants in the chemical industry have added capacity. There can be no assurance that future growth in product demand will be sufficient to utilize this additional, or even current, capacity. Excess industry capacity has depressed and may continue to depress Lyondell's and its joint ventures' volumes and margins. The global economic and political environment continues to be uncertain, contributing to low industry operating rates, adding to the volatility of raw material and energy costs, and forestalling the industry's recovery from trough conditions, all of which is placing, and may continue to place, pressure on Lyondell's and its joint ventures' results of operations.

Raw Materials and Energy Costs

Lyondell and its joint ventures purchase large amounts of raw materials and energy for their businesses. The cost of these raw materials and energy, in the aggregate, represents a substantial portion of Lyondell's and its joint ventures' operating expenses. The prices of raw materials and energy generally follow price trends of, and vary with the market conditions for, crude oil and natural gas, which may be highly volatile and cyclical. Results of operations for Lyondell and its joint ventures have been and could be in the future significantly affected by increases in these costs.

In addition, higher natural gas prices adversely affect the ability of many domestic chemicals producers to compete internationally since U.S. producers are disproportionately reliant on natural gas and natural gas liquids as an energy source and as a raw material. In addition to the impact that this has had on Equistar's exports, reduced competitiveness of U.S. producers also has in the past increased the availability of chemicals in North America, as U.S. production that would otherwise have been sold overseas was instead offered for sale domestically, resulting in excess supply and lower prices in North America.

General Economic Conditions and Other External Factors

External factors beyond Lyondell's and its joint ventures' control, such as general economic conditions, international events and circumstances, competitor actions, and governmental regulation in the United States and abroad, can cause volatility in the price of raw materials and other operating costs, as well as significant fluctuations in demand for Lyondell's and its joint ventures' products, and can magnify the impact of economic cycles on Lyondell's and its joint ventures' businesses. Lyondell believes that the events in the Middle East and Venezuela have had a particular influence in recent months and may continue to do so unless tensions subside. In addition, a number of Lyondell's and its joint ventures' products are highly dependent on durable goods markets, such as the housing and automotive markets, that are themselves particularly cyclical. Many of Lyondell's and its joint ventures' products are components of other chemical products that, in turn, are subject to the supply-demand balance of both the chemical and refining industries and general economic conditions. For example, MTBE is used as a blending component in gasoline, and therefore a substantial decline in gasoline prices could result in decreased profitability from MTBE sales. If the global economy does not improve, demand for Lyondell's and its joint ventures' products and their income and cash flows would continue to be adversely affected. With respect to Lyondell's refining joint venture, management believes that the combination of the Crude Supply Agreement and the Products Agreement generally tends to stabilize earnings and to reduce market driven volatility over the long-term. However, there are risks associated with these agreements. See "International Operations and Country Risks" below.

Lyondell and its joint ventures may reduce production at or idle a facility for an extended period of time or exit a business because of high raw material prices, an oversupply of a particular product and/or a lack of demand for that particular product, which makes production uneconomical. These temporary outages sometimes last for several quarters or, in certain cases, longer and cause Lyondell or its joint ventures to incur costs, including the expenses of maintaining and restarting these facilities. It is possible that factors like increases in raw material costs or lower demand in the future will cause Lyondell or its joint ventures to further reduce operating rates, or idle facilities or exit uncompetitive businesses.

International Operations and Country Risks

International operations and exports are subject to a number of risks, including currency exchange rate fluctuations, trade barriers, exchange controls, national and regional labor strikes, political risks and risks of increases in duties and taxes, as well as changes in laws and policies governing operations of companies in other countries. In addition, earnings of non-U.S. subsidiaries and intercompany payments may be subject to income tax rules of countries other than the United States, which may reduce cash flow available to meet required debt service and other obligations of Lyondell.

As discussed earlier, LCR is party to a long-term crude supply agreement with PDVSA Oil, a wholly owned subsidiary of PDVSA. There are risks associated with enforcing the provisions of contracts with companies such as PDVSA Oil that are non-U.S. affiliates of a sovereign nation. Additionally, all of the crude oil supplied by PDVSA Oil under the Crude Supply Agreement is produced in the Republic of Venezuela, which has experienced economic difficulties and attendant social and political changes and unrest in recent years, including during the recent national strike. See "LYONDELL-CITGO Refining LP—Raw Materials," "Item 3. Legal Proceedings—Litigation Matters" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Environmental Matters

The Company cannot predict with certainty the extent of its, its subsidiaries' or its joint ventures' future liabilities and costs under environmental, health and safety laws and regulations and the Company cannot guarantee that they will not be material. In addition, the Company, its subsidiaries and its joint ventures may face liability for alleged personal injury or property damage due to exposure to chemicals and other hazardous substances at their facilities or chemicals that they otherwise manufacture, handle or own. Although these types of claims have not historically had a material impact on the Company's, its subsidiaries' or its joint ventures' operations, a significant increase in the success of these types of claims could materially adversely affect the Company's, its subsidiaries' or its joint ventures' business, financial condition, operating results or cash flow.

The production facilities of Lyondell, Equistar and LCR generally are required to have permits and licenses regulating air emissions, discharges to land or water and storage, treatment and disposal of hazardous wastes. Companies such as Lyondell and its joint ventures that are permitted to treat, store or dispose of hazardous waste and maintain underground storage tanks pursuant to the Resource Conservation and Recovery Act ("RCRA") also are required to meet certain financial responsibility requirements. The Company believes that it and its joint ventures have all permits and licenses generally necessary to conduct its business or, where necessary, are applying for additional, amended or modified permits and that it and its joint ventures meet applicable financial responsibility requirements.

The policy of each of Lyondell, Equistar and LCR is to be in compliance with all applicable environmental laws. Lyondell and Equistar also are each committed to Responsible Care®, an international chemical industry initiative to enhance the industry's responsible management of chemicals. The Company's subsidiaries and joint ventures (together with the industries in which they operate) are subject to extensive national, state and local environmental laws and regulations concerning emissions to the air, discharges onto land or waters and the generation, handling, storage, transportation, treatment and disposal of waste materials. Many of these laws and regulations provide for substantial fines and potential criminal sanctions for violations. Some of these laws and regulations are subject to varying and conflicting interpretations. In addition, the Company cannot accurately predict future developments, such as increasingly strict environmental laws, and inspection and enforcement policies, as well as higher compliance costs therefrom, which might affect the handling, manufacture, use, emission or disposal of products, other materials or hazardous and non-hazardous waste. Some risk of environmental costs and liabilities is inherent in particular operations and products of the Company and its joint ventures, as it is with other companies engaged in similar businesses, and there is no assurance that material costs and liabilities will not be incurred. In general, however, with respect to the capital expenditures and risks described above, the Company does not expect that it or its joint ventures will be affected differently than the rest of the chemicals and refining industry where the Company's or its joint ventures' facilities are located.

Environmental laws may have a significant effect on the nature and scope of cleanup of contamination at current and former operating facilities, the costs of transportation and storage of raw materials and finished products and the costs of the storage and disposal of wastewater. Also, U.S. "Superfund" statutes may impose joint and several liability for the costs of remedial investigations and actions on the entities that generated waste, arranged for disposal of the wastes, transported to or selected the disposal sites and the past and present owners and operators of such sites. All such responsible parties (or any one of them, including the Company) may be required to bear all of such costs regardless of fault, legality of the original disposal or ownership of the disposed site.

The Company and its joint ventures have on-site solid-waste management units at several of their facilities, which were used in the past to dispose of waste generated at the facilities. It is anticipated that corrective measures will be necessary to comply with federal and state requirements with respect to these facilities. The Company also has liabilities under RCRA and various state and non-U.S. government regulations related to eight current plant sites and four former plant sites. The Company is also responsible for a portion of the remediation of certain off-site waste disposal facilities. The Company currently is contributing funds to the cleanup of two waste sites located near Houston, Texas under CERCLA and the Superfund Amendments and Reauthorization Act of 1986. The Company also has been named, along with several other companies, as a potentially responsible party for six CERCLA sites near Houston, Texas. The Company's policy is to accrue remediation expenses when it is probable that such efforts will be required and the related expenses can be reasonably estimated. Estimated costs for future environmental compliance and remediation are necessarily imprecise due to such factors as the continuing evolution of environmental laws and regulatory requirements, the availability and application of technology, the identification of presently unknown remediation sites and the allocation of costs among the responsible parties under applicable statutes. The Company, its subsidiaries and its joint ventures, to the extent appropriate, have accrued amounts (without regard to potential insurance recoveries or other third party reimbursements) believed to be sufficient to cover current estimates of the cost for remedial measures at manufacturing facilities and off-site waste disposal facilities based upon their interpretation of current environmental standards. In the opinion of management, there is currently no material range of loss in excess of the amount recorded. Based on the establishment of such accruals, and the status of discussions with regulatory agencies described in this paragraph, the Company does not anticipate any material adverse effect upon its financial statements or competitive position as a result of compliance with the laws and regulations described in this or the preceding paragraphs. See also "Item 3. Legal Proceedings" and

“Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Environmental Matters.”

In some cases, compliance with environmental, health and safety laws and regulations can only be achieved by capital expenditures. In the years ended December 31, 2002, 2001 and 2000, the Company, its subsidiaries and its joint ventures (on a 100% basis) spent, in the aggregate, approximately \$65 million, \$34 million and \$20 million, respectively, for environmentally related capital expenditures at existing facilities. The increases in 2002 and 2001 capital expenditures resulted from new emission reduction rules, as discussed below. The Company currently estimates that environmentally related capital expenditures at Company facilities and existing subsidiary and joint venture facilities (on a 100% basis) will be approximately \$74 million for 2003, prior to including any expenditures for proposed revisions to emission control standards for highly reactive volatile organic compounds (“HRVOCs”). Lyondell, Equistar and LCR are still completing their assessment of the impact of the proposed HRVOC emission standards.

The eight-county Houston/Galveston region has been designated a severe non-attainment area for ozone by the EPA. As a result, in December 2000, the Texas Natural Resource Conservation Commission, now known as the Texas Commission on Environmental Quality (“TCEQ”), submitted a plan to the EPA to reach and demonstrate compliance with the ozone standard by November 2007. Ozone is a product of the reaction between volatile organic compounds and nitrogen oxides (“NOx”) in the presence of sunlight, and is a principal component of smog. Emission reduction controls must be installed at the Refinery and each of Lyondell’s two facilities and Equistar’s six facilities in the Houston/Galveston region during the next several years. The rules adopted as part of the TCEQ plan in December 2000 required a 90% NOx emission reduction in aggregate from the industry. Based on this requirement, Lyondell estimated that aggregate related capital expenditures could total between \$400 million and \$500 million for Lyondell, Equistar and LCR before the 2007 deadline, and could result in higher annual operating costs. In January 2001, Lyondell and an organization composed of industry participants filed a lawsuit to encourage adoption of an alternative plan to achieve the same air quality improvement with less negative economic impact on the region. In response to the lawsuit, the TCEQ conducted an accelerated scientific review during 2001 and 2002. In December 2002, the TCEQ adopted revised rules, which changed the required NOx emission reduction levels from 90% to 80% while requiring new controls on emissions of HRVOCs, such as ethylene, propylene, butadiene and butanes. These new rules still require approval by the EPA. Based on the 80% NOx reduction requirement, Lyondell estimates that aggregate related capital expenditures could total between \$250 million and \$300 million for Lyondell, Equistar and LCR before the 2007 deadline, and could result in higher annual operating costs. See “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Environmental Matters” for a summary of the estimated capital expenditures for Lyondell and its joint ventures to comply with the 80% NOx emission reduction requirements. Lyondell, Equistar and LCR are still assessing the impact of the new HRVOC control requirements. Additionally, the TCEQ plans to make a final review of these rules, with final rule revisions to be adopted by May 2004. The timing and amount of these expenditures are subject to regulatory and other uncertainties, as well as obtaining the necessary permits and approvals. At this time, there can be no guarantee as to the ultimate capital cost of implementing any final plan developed to ensure ozone attainment by the 2007 deadline. See “Item 3. Legal Proceedings—Environmental Proceedings” and “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Environmental Matters.”

In the United States, the Clean Air Act Amendments of 1990 set minimum levels for oxygenates, such as MTBE, in gasoline sold in areas not meeting specified air quality standards. However, the presence of MTBE in some water supplies in California and other states due to gasoline leaking from underground storage tanks and in surface water from recreational water craft has led to public concern about the use of MTBE. Certain federal and state governmental initiatives in the U.S. have sought either to rescind the oxygen requirement for reformulated gasoline or to restrict or ban the use of MTBE. Lyondell’s North American MTBE sales represented approximately 26% of its total 2002 revenues.

At this time, Lyondell cannot predict the impact that these initiatives will have on MTBE margins or volumes during 2003. Lyondell intends to continue marketing MTBE in the U.S. However, should it become necessary or desirable to significantly reduce MTBE production, Lyondell would need to make capital expenditures to add the flexibility to produce alternative gasoline blending components, such as iso-octane or ethyl tertiary butyl ether (“ETBE”), at its U.S.-based MTBE plants. The current cost estimates for converting Lyondell’s U.S.-based MTBE plant to iso-octane production range from \$65 million to \$75 million. The profit margin for iso-octane is likely to

be lower than those historically realized on MTBE. Alternatively, Lyondell is pursuing ETBE viability through legislative efforts. One key hurdle is equal access to the federal subsidy provided for ethanol blended into gasoline for the ethanol component of ETBE. Lyondell's U.S.-based MTBE plant is capable of ETBE production with minimal capital requirements. See "Item 7. Management's Discussion and Analysis of Financial Condition and the Results of Operations – Environmental Matters" for further discussion.

The Clean Air Act specified certain emissions standards for vehicles beginning in the 1994 model year and required the EPA to study whether further emissions reductions from vehicles were necessary. In 1998, the EPA concluded that additional controls on gasoline and diesel fuel were necessary to meet these emission standards. New standards for gasoline were finalized in 1999 and will require refiners to produce a low sulfur gasoline by 2004, with final compliance by 2006. A new "on-road" diesel standard was adopted in January 2001 and will require refiners to produce ultra low sulfur diesel by June 2006, with some allowance for a conditional phase-in period that could extend final compliance until 2009. Lyondell estimates that these standards will result in increased capital investment for LCR, totaling between \$175 million and \$225 million for the new gasoline standards and between \$250 million and \$300 million for the new diesel standard, before the implementation dates. Lyondell's proportionate share of LCR's capital expenditures would be between \$250 million and \$300 million. In addition, these standards could result in higher operating costs for LCR. Equistar's business may also be adversely impacted if these standards increase the cost for processing fuel components.

Commodity Products

Lyondell and its joint ventures sell their products in highly competitive markets. Due to the commodity nature of certain of the products of Lyondell and its joint ventures, competition in the markets is based primarily on price and to a lesser extent on performance, product quality, product deliverability and customer service. As a result, Lyondell and its joint ventures generally are not able to protect their market position for these products by product differentiation and may not be able to pass on cost increases to customers. Accordingly, increases in raw material and other costs may not necessarily correlate with changes in prices for these products, either in the direction of the price change or in magnitude. Specifically, timing differences in pricing between raw material prices, which may change daily, and contract product prices, which in many cases are negotiated only monthly or less often, sometimes with an additional lag in effective dates for increases, can have a negative effect on profitability.

Operating Hazards

The occurrence of material operating problems at Lyondell's or its joint ventures' facilities, including, but not limited to, the events described below, may have a material adverse effect on the productivity and profitability of a particular manufacturing facility, or on the Company as a whole, during and after the period of such operational difficulties. The Company's income and cash flow are dependent on the continued operation of the Company's and its joint ventures' various production facilities and the ability to complete construction projects on schedule.

Although the Company and its joint ventures take precautions to enhance the safety of their operations and minimize the risk of disruptions, the Company's and its joint ventures' operations, along with the operations of other members of the chemical and refining industries, are subject to hazards inherent in chemical manufacturing and refining and the related storage and transportation of raw materials, products and wastes. These hazards include: pipeline leaks and ruptures; explosions; fires; severe weather and natural disasters; mechanical failure; unscheduled downtime; labor difficulties; transportation interruptions; remediation complications; chemical spills; discharges or releases of toxic or hazardous substances or gases; storage tank leaks; other environmental risks; and potential terrorist acts. Some of these hazards can cause personal injury and loss of life, severe damage to or destruction of property and equipment and environmental damage, and may result in suspension of operations and the imposition of civil or criminal penalties.

Furthermore, the Company is also subject to present and future claims with respect to workplace exposure, workers' compensation and other matters. The Company maintains property, business interruption and casualty insurance which it believes is in accordance with customary industry practices, but it is not fully insured against all potential hazards incident to its business, including losses resulting from war risks or terrorist acts. As a result of market conditions, premiums and deductibles for certain insurance policies can increase substantially and, in some instances, certain insurance may become unavailable or available only for reduced amounts of coverage.

Joint Venture Risks

A substantial portion of the Company's operations is conducted through joint ventures. The Company shares control of these joint ventures with third parties.

The Company's forecasts and plans with respect to these joint ventures assume that its joint venture partners will observe their obligations with respect to the joint ventures. In the event that any of the Company's joint venture partners do not observe their commitments, it is possible that the affected joint venture would not be able to operate in accordance with its business plans or that the Company would be required to increase its level of commitment in order to give effect to such plans.

As with any such joint venture arrangements, differences in views among the joint venture participants may result in delayed decisions or in failures to agree on major matters, potentially adversely affecting the business and operations of the joint ventures and in turn the business and operations of the Company.

Lyondell or any of the other owners of the joint ventures may transfer control of their joint venture interests or engage in mergers or other business combination transactions with a third party or with one or more of the other owners that could result in a change in control of Lyondell or the joint venture or the other owners. In many instances, such a transfer would be subject to an obligation to first offer the other owner an opportunity to purchase the interest. Lyondell and the other joint venture owners have discussed, and from time to time may continue to discuss, in connection with their ordinary course dialog regarding the joint ventures or otherwise, transactions that could result in a transfer or modification, directly or indirectly, of their ownership in a joint venture.

Lyondell cannot be certain that any of the joint venture owners will not sell, transfer or otherwise modify their ownership interest in a joint venture, whether in a transaction involving third parties and/or the other owner. Upon a transfer of an interest in Equistar, the partnership agreement and key agreements between Equistar and its owners would remain in place, and may not be modified without the consent of all of the owners, but the transfer could affect the governance of Equistar, particularly because Equistar's partnership agreement requires unanimous approval for some decisions.

Equistar's credit facility provides that an event of default occurs if Lyondell and/or Millennium cease to collectively hold at least a 50% interest. LCR's credit facility provides that an event of default occurs if Lyondell and CITGO cease to individually or collectively hold at least a 35% interest. In addition, LCR's credit facility provides that an event of default occurs if (1) Lyondell transfers its interest as a member of LCR to a person other than an affiliate or (2) neither CITGO nor any of its affiliates is a member of LCR.

Potential Acquisitions, Divestitures and Joint Ventures

Lyondell and its joint ventures seek opportunities to maximize efficiency or value through various transactions. These transactions may include various business combinations, purchases or sales of assets or contractual arrangements or joint ventures that are intended to result in the realization of synergies, the creation of efficiencies or the generation of cash to reduce debt. To the extent permitted under Lyondell's and its joint ventures' credit facilities and other debt agreements, some of these transactions may be financed with additional borrowings by Lyondell or its joint ventures or by the issuance of equity securities. Although these transactions are expected to yield longer-term benefits if the expected efficiencies and synergies of the transactions are realized, they could adversely affect the results of operations of Lyondell or its joint ventures in the short term because of the costs associated with such transactions.

FORWARD-LOOKING STATEMENTS

Certain of the statements contained in this report are "forward-looking statements" within the meaning of the federal securities laws. Although Lyondell believes the current expectations reflected in such forward-looking statements are reasonable, they do involve certain assumptions, risks and uncertainties, and Lyondell can give no assurance that such expectations will prove to have been correct. Lyondell's actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including:

- the cyclical nature of the chemical and refining industries,
- the availability, cost and volatility of raw materials and utilities,
- uncertainties associated with the United States and worldwide economies, including those due to political tensions in the Middle East and elsewhere and the potential for war,
- current and potential governmental regulatory actions in the United States and regulatory actions and political unrest in other countries,
- industry production capacity and operating rates,
- the supply/demand balance for Lyondell's and its joint ventures' products,
- competitive products and pricing pressures,
- access to capital markets,
- potential terrorist acts,
- operating interruptions (including leaks, explosions, fires, weather-related incidents, mechanical failure, unscheduled downtime, labor difficulties, transportation interruptions, spills and releases and other environmental risks),
- technological developments, and
- Lyondell's ability to implement its business strategies, including cost reductions.

Many of such factors are beyond Lyondell's or its joint ventures' ability to control or predict. Any of these factors, or a combination of these factors, could materially affect Lyondell's or its joint ventures' future results of operations and the ultimate accuracy of the forward-looking statements. These forward-looking statements are not guarantees of Lyondell's or its joint ventures' future performance, and Lyondell's or its joint ventures' actual results and future developments may differ materially from those projected in the forward-looking statements. Management cautions against putting undue reliance on forward-looking statements or projecting any future results based on such statements or present or prior earnings levels.

All forward-looking statements in this Form 10-K are qualified in their entirety by the cautionary statements contained in this section and elsewhere in this report. See "Items 1 and 2. Business and Properties," "Certain Factors That May Affect Lyondell and Its Joint Ventures," "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 7a. Disclosure of Market and Regulatory Risk" for additional information about factors that may affect the businesses and operating results of Lyondell and its joint ventures. In addition, this report contains summaries of contracts and other documents. These summaries may not contain all of the information that is important to an investor, and reference is made to the actual contract or document for a more complete understanding of the contract or document involved.

NON-GAAP FINANCIAL MEASURES

The body of generally accepted accounting principles is commonly referred to as "GAAP." For this purpose, a non-GAAP financial measure is generally defined by the Securities and Exchange Commission as one that purports to measure historical or future financial performance, financial position or cash flows but excludes or includes amounts that would not be so adjusted in the most comparable U.S. GAAP measure. From time to time Lyondell discloses so-called non-GAAP financial measures, primarily EBITDA, or earnings before interest, taxes and depreciation and amortization of long-lived assets, as well as proportionate share data for Lyondell and its joint ventures. The non-GAAP financial measures described herein are not a substitute for the GAAP measures of earnings, for which management has responsibility.

EBITDA is a key measure used by the banking and high-yield investing communities in their evaluation of economic performance. Accordingly, management believes that disclosure of EBITDA provides useful information to investors because it is frequently cited by financial analysts in evaluating companies' performance and it is a key measure in the calculation of financial covenants contained in Lyondell's credit facility and the indentures governing its senior debt. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition—Liquidity and Capital Resources" and Note 13 to the Consolidated Financial Statements. Management believes that inclusion of EBITDA in certain disclosures is useful because it increases the visibility of this component of the covenant analysis to an investor. Additionally, multiples of EBITDA are one measure of the indicated fair value of certain long-lived assets. For example, Lyondell used the multiples-of-EBITDA approach in evaluating its goodwill for impairment. See Note 2 to the Consolidated Financial Statements.

Lyondell also reports proportionate share data for Lyondell and its joint ventures. The joint ventures are not consolidated, but accounted for by the equity method of accounting. Accordingly, in Lyondell's financial statements investors only see a single line item – investments – for the joint ventures in the balance sheet and one line item – equity income from joint venture investments – in the income statement. As such, investors may not get a true appreciation of the magnitude of certain operating and financial data for Lyondell and its joint ventures and the scope of their business activities. Management believes that reporting proportionate share data may give investors a more complete picture of the size and scope of the operating activities of Lyondell and its joint ventures.

Lyondell also periodically reports adjusted net income (loss) or adjusted EBITDA, excluding certain items that are unusual in nature or not comparable from period to period and that are included in GAAP measures of earnings. Management believes that excluding these items generally helps investors compare operating performance between two periods. Such adjusted data is not reported without an explanation of the items that are excluded.

Item 3. *Legal Proceedings*

Litigation Matters

On February 1, 2002, LCR filed a lawsuit against PDVSA and PDVSA Oil in the United States District Court, Southern District of New York in connection with various force majeure declarations since April 1998. In the lawsuit, LCR alleges that the force majeure declarations by PDVSA and PDVSA Oil are invalid and that PDVSA and PDVSA Oil have breached the contracts related to the delivery of crude oil by PDVSA and PDVSA Oil to LCR. LCR is seeking monetary damages of at least \$90 million resulting from PDVSA Oil's failure to pay LCR the amounts required by contract relating to past crude oil deliveries of less than the contractual amount. LCR is also seeking declaratory relief relating to the force majeure declarations, and is seeking a declaratory interpretation of the disputed contract provisions in order to clarify the rights and obligations of the parties to the remaining duration of the contracts, which expire in December 2017. On May 31, 2002, the defendants filed a motion to dismiss LCR's complaint on the ground that the "act of state" doctrine prevented the court from deciding LCR's breach of contract claims. LCR opposed the defendants' motion. The motion to dismiss was submitted to the court for decision on June 27, 2002. The court has not yet ruled on defendants' motion.

The Company and its joint ventures are, from time to time, defendants in lawsuits, some of which are not covered by insurance. Many of these suits make no specific claim for relief. Although final determination of legal liability and the resulting financial impact with respect to any such litigation cannot be ascertained with any degree of certainty, the Company does not believe that any ultimate uninsured liability resulting from the legal proceedings in which it or its joint ventures currently are involved (directly or indirectly) will individually, or in the aggregate, have a material adverse effect on the business or financial condition of the Company. However, the adverse resolution in any reporting period of one or more of these suits could have a material impact on Lyondell's results of operations for that period without giving effect to contribution or indemnification obligations of co-defendants or others, or to the effect of any insurance coverage that may be available to offset the effects of any such award.

Although Lyondell and its joint ventures are involved in numerous and varied legal proceedings, a significant portion of its outstanding litigation arose in four contexts: (1) claims for personal injury or death allegedly arising out of exposure to the products produced by the respective entities; (2) claims for personal injury or death, and/or

property damage allegedly arising out of the generation and disposal of chemical wastes at Superfund and other waste disposal sites; (3) claims for personal injury and/or property damage allegedly arising out of operations and air, noise and water pollution allegedly arising out of operations; and (4) employment related claims.

Environmental Proceedings

On January 19, 2001, Equistar and LCR, individually, and Lyondell, individually and as part of the BCCA Appeal Group (a group of industry participants), filed a lawsuit against the TCEQ in State District Court in Travis County, Texas to encourage the adoption of the plaintiffs' alternative plan to achieve the same air quality improvement as the TCEQ plan, with less negative economic impact on the region. In June 2001, the parties entered into a consent order with respect to the lawsuit. Pursuant to the consent order, the TCEQ agreed to review by June 2002 the scientific data for ozone formation in the Houston/Galveston region. In October 2001, the EPA approved the original TCEQ plan, and the BCCA Appeal Group filed a timely petition for judicial review of that action in the United States Fifth Circuit Court of Appeals in January 2002. In December 2002, the TCEQ adopted revised NO_x and HRVOC rules in response to this litigation. For a discussion of the impact of these rules, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Environmental Matters." On March 5, 2003, the plaintiffs' filed for a voluntary dismissal of the case brought in State District Court in Travis County, Texas. The petition for judicial review filed in January 2002 regarding the EPA approval of the original December 2000 TCEQ plan (the 90% reduction requirement) remains active before the United States Fifth Circuit Court of Appeals.

In addition, from time to time the Company receives notices from federal, state or local governmental entities of alleged violations of environmental laws and regulations pertaining to, among other things, the disposal, emission and storage of chemical and petroleum substances, including hazardous wastes. Although the Company has not been the subject of significant penalties to date, such alleged violations may become the subject of enforcement actions or other legal proceedings and may (individually or in the aggregate) involve monetary sanctions of \$100,000 or more (exclusive of interest and costs).

In April 1997, the Illinois Attorney General's Office filed a complaint in Grundy County, Illinois Circuit Court seeking monetary sanctions for releases into the environment at Millennium's Morris, Illinois plant in alleged violation of state regulations. The Morris, Illinois plant was contributed to Equistar on December 1, 1997 in connection with the formation of Equistar. Equistar now believes that a civil penalty in excess of \$100,000 could result, without giving effect to contribution or indemnification obligations of others. Equistar does not believe that the ultimate resolution of this complaint will have a material adverse effect on the business or financial condition of Equistar.

In connection with the transfer of assets and liabilities from ARCO to the Company prior to its initial public offering in 1988, the Company agreed to assume certain liabilities arising out of the operation of the Company's integrated petrochemicals and refining business prior to July 1, 1988. The Company and ARCO entered into an agreement, updated in 1997 (the "Revised Cross-Indemnity Agreement"), whereby the Company agreed to defend and indemnify ARCO against certain uninsured claims and liabilities which ARCO may incur relating to the operation of the business of the Company prior to July 1, 1988, including certain liabilities that may arise out of pending and future lawsuits. For current and future cases related to Company products and Company operations, ARCO and the Company bear a proportionate share of judgment and settlement costs according to a formula that allocates responsibility based on years of ownership during the relevant time period. Under the Revised Cross-Indemnity Agreement, the Company assumed responsibility for its proportionate share of future costs for waste site matters not covered by ARCO insurance. In connection with the ARCO Chemical Acquisition, the Company is successor to a cross-indemnity agreement between ARCO and ARCO Chemical relating to claims or liabilities that ARCO may incur relating to its former ownership and operation of the oxygenates and polystyrenics businesses of ARCO Chemical for periods after July 1, 1987. On April 18, 2000, ARCO was acquired by BP. Subject to the uncertainty inherent in all litigation, management believes the resolution of the matters pursuant to these indemnity agreements will not have a material adverse effect upon the Consolidated Financial Statements of the Company.

Lyondell's environmental liability totaled \$19 million at December 31, 2002 based on the Company's latest assessment of potential future remediation costs. This amount comprises liability for remediation responsibility retained by ARCO Chemical in connection with the sale of a plant in 1996 and liability related to several owned plant facilities, including the Channelview facility, and federal Superfund sites for amounts ranging from less than

\$1 million to \$4 million per site. Lyondell is involved in administrative proceedings or lawsuits relating to a minimal number of other Superfund sites. The Company estimates, based on currently available information, that potential loss contingencies associated with these sites, individually and in the aggregate, are not significant. However, it is possible that new information about the sites for which the accrual has been established, new technology or future developments such as involvement in other CERCLA, RCRA, TCEQ or other comparable state or non-U.S. law investigations, could require the Company to reassess its potential exposure related to environmental matters. Substantially all amounts accrued are expected to be paid out over the next two to seven years. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Lyondell, Millennium Petrochemicals and Occidental and certain of its subsidiaries have each agreed to provide certain indemnifications to Equistar with respect to the petrochemicals and polymers businesses they each contributed. In addition, Equistar agreed to assume third party claims that are related to certain contingent liabilities arising prior to the contribution transactions that are asserted prior to December 1, 2004 as to Lyondell and Millennium Petrochemicals, and May 15, 2005 as to Occidental, to the extent the aggregate thereof does not exceed \$7 million for each entity, subject to certain terms of the respective asset contribution agreements. As of December 31, 2002, Equistar had incurred nearly \$7 million with respect to the indemnification basket for the business contributed by Lyondell. Lyondell, Millennium and Occidental each remain liable under these indemnification arrangements to the same extent following Lyondell's acquisition of Occidental's interest in Equistar as they were before.

EXECUTIVE OFFICERS OF THE REGISTRANT

Set forth below are the executive officers of the Company as of February 28, 2003. The By-Laws of the Company provide that each officer shall hold office until the officer's successor is elected or appointed and qualified or until the officer's death, resignation or removal by the Board of Directors. Certain of the executive officers of Lyondell also are officers of Equistar. In addition, others perform their functions for Equistar as part of the Lyondell enterprise. For example, Mr. Bayer oversees manufacturing, health, safety, environmental and engineering services for Equistar, Mr. DeNicola provides financial management services to Equistar, and Ms. Galvin oversees legal and governmental affairs services for Equistar.

<u>Name, Age and Present Position with Lyondell</u>	<u>Business Experience During Past Five Years and Period Served as Officer(s)</u>
Dan F. Smith, 56..... Director, President and Chief Executive Officer	Mr. Smith was named Chief Executive Officer in December 1996 and President of the Company in August 1994. Mr. Smith has been a director since October 1988. Since December 1, 1997, Mr. Smith has also served as the Chief Executive Officer of Equistar. Mr. Smith served as Chief Operating Officer of the Company from May 1993 to December 1996. Prior thereto, Mr. Smith held various positions including Executive Vice President and Chief Financial Officer of the Company, Vice President, Corporate Planning of ARCO and Senior Vice President in the areas of management, manufacturing, control and administration for the Company and the Lyondell Division of ARCO. Mr. Smith is a director of Cooper Industries, Inc. and is a member of the Partnership Governance Committee of Equistar. Mr. Smith also is a member of the Board and the Executive Committee for the American Chemistry Council and is past Chairman of the Operating Board and a member of the Executive Committee for the American Plastics Council.
Morris Gelb, 56..... Executive Vice President and Chief Operating Officer	Mr. Gelb was appointed to his current position at Lyondell in December 1998. Since March 2002, Mr. Gelb also has served as Chief Operating Officer of Equistar. Previously, he served as Senior Vice President, Manufacturing, Process Development and Engineering of Lyondell from July 1998 to December 1998. He was named Vice President for Research and Engineering of ARCO Chemical in 1986 and Senior Vice President of ARCO Chemical in July 1997. Mr. Gelb also serves as a member of the Partnership Governance Committee of LCR.
T. Kevin DeNicola, 48..... Senior Vice President and Chief Financial Officer	Mr. DeNicola was appointed Senior Vice President and Chief Financial Officer of Lyondell effective as of June 30, 2002. Prior thereto, he served as Vice President, Corporate Development of Lyondell since April 1998, overseeing strategic planning. From 1996 until April 1998, Mr. DeNicola was Director of Investor Relations of Lyondell. Mr. DeNicola served as Ethylene Products Manager of Lyondell from 1993 until 1996. Mr. DeNicola also serves as a member of the Partnership Governance Committees of Equistar and LCR.
John R. Beard, 50..... President, Lyondell Chemical Europe	Mr. Beard was appointed to his present position in October 2000. He previously served as Senior Vice President of Manufacturing for Equistar since May 1998. In this position, he was also responsible for Lyondell's U.S. manufacturing sites beginning in late 1999. From 1997 to May 1998, Mr. Beard held the position of Vice President, Manufacturing for Equistar. Prior to this, Mr. Beard held positions as Vice President, Petrochemicals Manufacturing and Vice President, Quality Supply and Planning for Lyondell. Mr. Beard originally joined the Company in 1974.
James W. Bayer, 47..... Senior Vice President, Manufacturing	Mr. Bayer was appointed to his current position in October 2000. He previously was the Vice President of Health, Safety, Environmental and Engineering. From December 1997 to July 1999 he was Director, Gulf Coast Manufacturing for ARCO Chemical. Prior to December 1997, Mr. Bayer served as Channelview Plant Manager for ARCO Chemical.

**Name, Age and Present
Position with Lyondell**

**Business Experience During Past
Five Years and Period Served as Officer(s)**

Edward J. Dineen, 48 Senior Vice President, Chemicals and Polymers	Mr. Dineen was appointed Senior Vice President, Chemicals and Polymers of Lyondell in May 2002 and Senior Vice President, Chemicals and Polymers of Equistar in March 2002. Prior thereto, he served as Senior Vice President, Intermediates and Performance Chemicals of Lyondell since May 2000. Prior to this position, he served as Senior Vice President, Urethanes and Performance Chemicals of Lyondell since July 1998. He served as Vice President, Performance Products and Development for ARCO Chemical beginning in June 1997, and served as Vice President, Planning and Control for ARCO Chemical European Operations from 1993 until his appointment as Vice President, Worldwide CoProducts and Raw Materials in 1995.
Kerry A. Galvin, 42 Senior Vice President, General Counsel and Secretary	Ms. Galvin was appointed Senior Vice President, General Counsel and Secretary of Lyondell in May 2002. Prior thereto, she served as Vice President, General Counsel and Secretary since July 2000. Ms. Galvin has responsibility for legal and governmental affairs for the Lyondell enterprise. Ms. Galvin originally joined Lyondell in 1990 and held various positions in the legal department prior to July 2000, including Associate General Counsel with responsibility for international legal affairs. Ms. Galvin also serves as a member of the Partnership Governance Committee of Equistar.
W. Norman Phillips, Jr., 48..... Senior Vice President, Fuels and Raw Materials	Mr. Phillips was appointed Senior Vice President, Fuels and Raw Materials of Lyondell in May 2002 and Senior Vice President, Fuels and Raw Materials of Equistar in March 2002. Prior thereto, he served as Senior Vice President, Polymers of Equistar since August 1998. He was previously Vice President, Petrochemicals of Equistar from December 1997 to August 1998. Mr. Phillips also has served as Senior Vice President of Lyondell since October 2000. He previously served as Vice President, Polymers of Lyondell from January 1997 to December 1997, and as Vice President of Lyondell with responsibilities in the areas of marketing and operations from 1993 to January 1997. Mr. Phillips also serves as a member of the Partnership Governance Committee of LCR.
John A. Hollinshead, 53..... Vice President, Human Resources	Mr. Hollinshead was appointed to his current position in July 1998. Mr. Hollinshead has also served as Vice President, Human Resources of Equistar since 1999. Prior to his appointment as Vice President, Human Resources, he was Director, Human Resources, Manufacturing and Engineering for Equistar. Mr. Hollinshead served as Manager, Human Resources with Lyondell from 1985 to 1997.

Item 4. *Submission of Matters to a Vote of Security Holders*

None.

PART II

Item 5. *Market for Registrant's Common Equity and Related Stockholder Matters*

Since August 22, 2002, the Company has had two series of common stock outstanding: (1) common stock, \$1.00 par value per share, which is referred to as "original common stock," and (2) Series B common stock, \$1.00 par value per share, which is referred to as "Series B common stock." The shares of Series B common stock have the same rights as the original common stock, with the exception of the dividend. The Series B common stock pays a dividend at the same rate as the original common stock but, at the Company's option, the dividend may be paid in additional shares of Series B common stock or in cash. Under the Company's Certificate of Incorporation and the agreement relating to the issuance of the Series B common stock, the holder of the Series B common stock may elect to convert the shares of Series B common stock into shares of original common stock at any time (1) after August 22, 2004, if the Company would be permitted under its debt agreements at that time, as it is today, to pay cash dividends on the converted shares without a reduction in the dividend then being paid on its then outstanding shares of original common stock, (2) after August 22, 2005, whether or not there would be such a restriction, (3) following an acquisition of a majority of the Company's outstanding voting securities in a transaction not approved by the Company's Board of Directors or (4) with the consent of the Company. As of December 31, 2002, there were 125,844,920 shares of the Company's original common stock outstanding and 34,568,224 shares of the Company's Series B common stock outstanding.

The shares of the Company's original common stock are listed on the New York Stock Exchange and may be freely transferred and resold. The shares of the Company's Series B common stock are not listed on the New York Stock Exchange and are subject to restrictions on transferability and resale. The Series B common stock may not be transferred or resold except as permitted (1) under the Securities Act of 1933, as amended, and applicable state securities laws, pursuant to a registration or exemption therefrom, and (2) by the stockholders agreement between the Company and the holders of the Series B common stock.

The reported high and low sale prices of the original common stock on the New York Stock Exchange (New York Stock Exchange Composite Tape) for each quarter from January 1, 2001 through December 31, 2002, inclusive, were as set forth below.

<u>Period</u>	<u>High</u>	<u>Low</u>
2001:		
First Quarter.....	\$ 17.950	\$ 12.625
Second Quarter	17.650	13.940
Third Quarter	15.400	9.450
Fourth Quarter.....	15.930	10.900
2002:		
First Quarter.....	\$ 17.590	\$ 12.070
Second Quarter	17.470	13.850
Third Quarter	15.250	11.150
Fourth Quarter.....	14.830	10.330

On February 28, 2003, the closing sale price of the Company's original common stock was \$11.91, and there were approximately 1,692 holders of record of the original common stock.

There is no established public trading market for the Company's Series B common stock, and all of the shares of Series B common stock outstanding on February 28, 2003 were held by Occidental Chemical Holding Corporation, a subsidiary of Occidental.

Holders of Lyondell's original common stock and Series B common stock are entitled to receive such dividends as may from time to time be declared by Lyondell's Board of Directors. Lyondell's Certificate of Incorporation provides that the Board of Directors may not declare a dividend on shares of original common stock without also declaring a dividend in the same amount and form on shares of Series B common stock. However, if the Board of

Directors declares a cash dividend on shares of original common stock, it may in its sole discretion declare and pay a dividend on shares of Series B common stock by issuing additional shares of Series B common stock to the holders thereof in lieu of cash.

During the last two years, Lyondell has declared \$.225 per share quarterly cash dividends (which were paid after the end of the quarter to which they related). During 2002, Lyondell paid \$109 million in cash dividends on its original common stock. The first quarterly dividend on the Series B common stock was paid on December 31, 2002, and Lyondell elected to pay the dividend on the Series B common stock in the form of 568,224 shares of Series B common stock. As described above, the declaration and payment of dividends is at the discretion of the Board of Directors. The future declaration and payout of dividends and the amount thereof will be dependent upon Lyondell's results of operations, financial condition, cash position and requirements, investment opportunities, future prospects, contractual restrictions and other factors deemed relevant by the Board of Directors. Subject to these considerations, the provisions of Lyondell's Certificate of Incorporation and the legal considerations discussed in the following paragraph, Lyondell currently intends to distribute dividends to its shareholders at a quarterly rate of \$.225 per share, and currently intends to pay the dividends on its original common stock in cash and on its Series B common stock in the form of additional shares of Series B common stock. It is possible that all or a portion of the dividends paid by Lyondell during 2003 could represent a return of capital distribution to recipients. The determination of the actual characterization of distributions made during 2003 cannot be determined until after the close of the year, and will be reflected in the 2003 Form 1099-DIV to be sent in early 2004.

Lyondell's credit facilities and indentures could limit Lyondell's ability to pay dividends under certain circumstances. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations." In addition, pursuant to a settlement agreement entered into with the Pension Benefit Guaranty Corporation in 1998, Lyondell may not pay extraordinary dividends (as defined by regulations under the Employee Retirement Income Security Act of 1974, as amended) without providing a letter of credit meeting certain specified requirements. In February 2002, Lyondell provided a letter of credit meeting these requirements.

Item 6. Selected Financial Data

The following selected financial data should be read in conjunction with the Consolidated Financial Statements and the notes thereto and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

<u>Millions of dollars, except per share data</u>	<u>For the year ended December 31,</u>				
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998(a)</u>
Results of Operations Data:					
Sales and other operating revenues	\$ 3,262	\$ 3,193	\$ 4,003	\$ 3,660	\$ 1,433
Income from equity investments	14	40	199	76	235
Net income (loss) (b)	(148)	(150)	437	(115)	52
Basic earnings (loss) per share (b)	(1.10)	(1.28)	3.72	(1.10)	.67
Diluted earnings (loss) per share (b)	(1.10)	(1.28)	3.71	(1.10)	.67
Dividends per share	.90	.90	.90	.90	.90
Balance Sheet Data:					
Total assets	7,448	6,703	7,047	9,498	9,156
Long-term debt	3,926	3,846	3,844	6,046	5,391

- (a) The financial information for 1998 included five months of operating results for ARCO Chemical, acquired as of July 28, 1998 and accounted for using the purchase method of accounting. It also included twelve months of Equistar, LCR and LMC; each accounted for as an equity investment.
- (b) The net loss for 2002, net loss for 2001, net income for 2000 and the net loss for 1999 included extraordinary losses on early extinguishment of debt, net of income taxes, of \$15 million, \$5 million, \$33 million and \$35 million, or \$.11, \$.04, \$.28 and \$.33 per basic and diluted share, respectively. In addition, net income for 2000 included an after-tax gain on asset sales of \$400 million, or \$3.40 per share.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

This discussion should be read in conjunction with the information contained in the Consolidated Financial Statements and the notes thereto.

In addition to comparisons of 2002 annual operating results with results of the prior year, Lyondell Chemical Company ("Lyondell") has included, as additional disclosure, certain "trailing quarter" comparisons of fourth quarter 2002 operating results to third quarter 2002 operating results. The businesses of Lyondell and its joint venture's are highly cyclical, in addition to experiencing some less significant seasonal effects. Trailing quarter comparisons may offer important insight into the current business direction of Lyondell and its joint ventures.

References to industry benchmark prices and costs are generally to industry prices and costs reported by Chemical Marketing Associates, Incorporated ("CMAI"), except that crude oil and natural gas benchmark price references are to industry prices reported by Platts, a reporting service of The McGraw-Hill Companies.

Overview

Industrial production in the U.S., a key indicator of demand for products of Lyondell and Equistar Chemicals, LP ("Equistar"), contracted an estimated 1% in 2002 compared to a 4% contraction in 2001 and growth of nearly 5% in 2000. Despite the 2002 contraction, Lyondell and Equistar generally experienced increased demand for most products during 2002 compared to 2001. The 2001 contraction resulted in generally lower demand and sales volumes for Lyondell and Equistar in 2001 compared to 2000.

Crude oil and natural gas prices have generally been indicators of the level and direction of movement of raw material and energy costs for Lyondell and Equistar. The following table shows the average benchmark prices for crude oil and natural gas for the three-year comparison period as well as benchmark sales prices for ethylene and propylene, which Equistar produces and sells. Propylene is also a key raw material for Lyondell's intermediate chemicals and derivatives segment.

	Average Benchmark Price for the Year and Percent Change Versus Prior Year Average				
	2002	Percent Change	2001	Percent Change	2000
Crude oil – dollars per barrel	26.12	2 %	25.73	(14)%	30.06
Natural gas – dollars per million BTUs	3.22	(25)%	4.28	10 %	3.88
Ethylene – cents per pound	22.23	(16)%	26.33	(13)%	30.19
Propylene – cents per pound	18.00	3 %	17.42	(23)%	22.63

The considerable volatility in raw material prices during the three-year period is not apparent in the annual average raw material prices shown in the table above. For example, the benchmark price of crude oil trended upward from a low of \$27.10 per barrel in January 2000 to a high of \$34.30 per barrel in November 2000, a 27% increase. Benchmark crude oil prices then trended downward to a low of \$19.30 per barrel in December 2001, a 44% decrease from the November 2000 high. During 2002, benchmark crude oil prices trended upward to \$29.50 per barrel in December 2002, a 53% increase from the December 2001 low. Benchmark natural gas prices rose from \$2.34 per million BTUs in January 2000 to a historical high of \$9.84 per million BTUs in January 2001, a 320% increase. Benchmark natural gas prices then trended downward to a low of \$1.82 per million BTUs in October 2001, an 81% decrease from the January 2001 spike. During 2002, benchmark natural gas prices resumed an upward trend, increasing to \$4.05 per million BTUs in December 2002, a 123% increase from the October 2001 low.

Significant volatility in raw material costs tends to put pressure on product margins, as sales price increases generally tend to lag behind raw material cost increases. Conversely, when raw material costs decrease, customers tend to demand immediate relief in the form of lower sales prices. These dynamics are particularly pronounced during periods of excess industry capacity and contributed to the trough conditions experienced by the chemical industry in 2001 and 2002.

Other significant events in 2002 included the August 22, 2002 acquisition by Lyondell of Occidental Petroleum Corporation's ("Occidental") 29.5% interest in Equistar. Lyondell financed this acquisition by issuing Series B common stock, warrants and a right to a contingent payment to a subsidiary of Occidental. See Notes 7 and 19 to the Consolidated Financial Statements. As a result of the transactions, Lyondell currently has a 70.5% interest in Equistar, while Occidental has an approximate 22% ownership interest in Lyondell.

RESULTS OF OPERATIONS

Lyondell's operating income relates to the intermediate chemicals & derivatives ("IC&D") business segment. Lyondell's activities in the petrochemicals, polymers and refining business segments are conducted through its interests in Equistar and LCR. Lyondell accounts for its investments in Equistar and LCR using the equity method of accounting, as discussed under "Critical Accounting Policies," below.

Through April 30, 2002, Lyondell's methanol operations were conducted through its joint venture ownership interest in Lyondell Methanol Company, L.P. ("LMC"), which was not a reportable segment for financial disclosure purposes. Effective May 1, 2002, LMC was wholly owned by Lyondell and the methanol results were included in the IC&D segment from that date. The effects of consolidating the LMC operations, which previously had been accounted for using the equity method, were not material.

Lyondell Chemical Company

Revenues and Operating Income—Lyondell's operating income was \$174 million in 2002, \$112 million in 2001 and \$929 million in 2000. Lyondell's operating results are reviewed in the discussion of the IC&D segment below.

Income (Loss) from Equity Investment in Equistar—Lyondell's equity investment in Equistar resulted in a loss of \$117 million in 2002 compared to a loss of \$77 million in 2001 and income of \$101 million in 2000. The \$40 million increase in Lyondell's equity loss from Equistar was primarily due to deterioration in Equistar's earnings in the fourth quarter 2002 combined with Lyondell's ownership percentage increasing from 41% to 70.5% in August 2002. On a 100% basis, Equistar's loss decreased to \$246 million in 2002 from \$280 million in 2001 due primarily to \$33 million of goodwill amortization and \$22 million of Port Arthur facility closing costs, which were included in 2001 annual results. Lyondell's 41% share of these costs in 2001 was \$23 million. Apart from these items, Equistar's loss, on a 100% basis, would have increased \$21 million in 2002 as a decrease in petrochemicals segment operating income and higher interest expense was only partly offset by a decrease in the polymers segment operating loss. The petrochemicals segment operating income decreased as a result of lower product margins in 2002 compared to 2001. Conversely, the polymers segment operating loss decreased due to higher product margins in 2002 compared to 2001.

The decrease of \$178 million in Lyondell's income from its equity investment in Equistar in 2001 compared to 2000 primarily reflected lower petrochemicals segment margins as well as lower volumes for both the petrochemicals and polymers segments. The lower petrochemicals margins were due to lower sales prices, which decreased more than raw material costs, in 2001 compared to 2000. Petrochemical margins were also negatively affected by decreases in prices for co-products propylene, benzene and butadiene during 2001. The lower sales prices and volumes reflected weaker demand in 2001. Polymers segment 2001 operating results were comparable to 2000. Results for 2001 also included Lyondell's 41% share of shutdown costs for Equistar's Port Arthur, Texas polymer facility, or \$9 million before tax.

Income from Equity Investment in LCR—Lyondell's income from its equity investment in LCR was \$135 million in 2002, \$129 million in 2001 and \$86 million in 2000. In 2002, LCR's net income was negatively impacted by lower crude oil deliveries under LCR's crude supply agreement ("CSA") with PDVSA Petróleo, S.A. ("PDVSA Oil") compared to the 2001 periods. See the "Crude Supply Agreement" section of Note 18 to the Consolidated Financial Statements for a description of the CSA. LCR maintained crude oil processing levels through increased purchases of spot market crude oil, which had significantly lower margins in the 2002 periods compared to the 2001 periods and compared to CSA crude oil margins. Operating results benefited from lower

natural gas prices in 2002 compared to 2001. The improvement in 2001 compared to 2000 was primarily due to higher deliveries and increased margins under the CSA in 2001 as well as higher margins on spot market volumes in 2001. This was partially offset by the negative effect of a major scheduled maintenance turnaround during the fourth quarter 2001.

Interest Expense—Interest expense was \$384 million in 2002, \$386 million in 2001 and \$514 million in 2000. The decrease in 2001 compared to 2000 was principally due to the full-year effect in 2001 of debt reductions made in 2000. During 2000, Lyondell retired a total of \$2.4 billion of debt, primarily using net proceeds of the March 31, 2000 asset sale to Bayer.

Interest Income—Interest income was \$11 million in 2002, \$17 million in 2001 and \$52 million in 2000. The decrease in 2002 compared to 2001 reflected lower interest rates in 2002. The higher 2000 interest income reflected higher cash balances for part of the year as a result of proceeds from the asset sale to Bayer. The cash proceeds were used to retire debt during 2000, resulting in lower cash balances and lower interest income during 2001. Interest rates in 2001 were also lower than in 2000.

Income Tax—The 2002 effective tax rate was 31% compared to 34% in 2001 and 32% in 2000. Both the 2002 and 2001 effective rates reflected a tax benefit from operating losses incurred during the year. The lower 2002 rate reflected the effect of taxes on non-U.S. income. The 2001 effective tax rate also reflected the effect of non-U.S. earnings taxed at higher rates, but this was more than offset by a benefit from a change in estimate of prior year items. The change in estimate of prior year items primarily represented certain tax effects related to the sale of assets to Bayer in 2000. The 2000 tax rate of 32% reflected, in part, a federal tax benefit from a financial restructuring of Lyondell's European operations and the attendant recognition of certain foreign exchange translation losses.

Extraordinary Losses—Extraordinary losses, net of income taxes, were \$15 million in 2002, \$5 million in 2001, and \$33 million in 2000. During 2002, Lyondell retired a significant portion of Term Loan E in the principal amount of \$515 million and amended its credit facility. As a result, Lyondell recognized a \$10 million prepayment premium and the write-off of unamortized debt issuance costs of \$13 million, or a total, after tax, of \$15 million as an extraordinary loss on early extinguishment of debt. The debt was retired using proceeds from \$278 million of fixed rate debt issued in July 2002 and \$337 million of fixed rate debt issued in December 2002.

The extraordinary item for 2001 consisted of the write-off of \$7 million of unamortized debt issuance costs and amendment fees related to the early repayment of \$384 million principal amount of variable-rate debt. The after-tax charge of \$5 million was reported as an extraordinary loss on early extinguishment of debt. The debt was retired using net proceeds from \$393 million of fixed rate debt issued in December 2001.

The extraordinary item for 2000 consisted of the write-off of unamortized debt issuance costs and amendment fees of \$40 million and prepayment premiums of \$10 million. The total of \$50 million, or \$33 million after tax, related to the early retirement of \$2.2 billion of debt, primarily using net proceeds from the Bayer asset sale.

Beginning in 2003, these items will be reclassified to be included in income before extraordinary items. See "Anticipated Accounting Changes."

Net Income (Loss)—Lyondell had a net loss of \$148 million in 2002, a net loss of \$150 million in 2001 and net income of \$437 million in 2000. The trend of net income (loss) is affected by certain items described below:

- Annual goodwill amortization of \$17 million after tax ceased effective January 1, 2002. See "Accounting Changes" below.
- During the third quarter 2001, Lyondell exited the aliphatic diisocyanates ("ADI") business and shut down its ADI operations at its Lake Charles, Louisiana facility. The decision reflected the limited ongoing strategic value to Lyondell of the ADI business and Lyondell's poor competitive position in the ADI business. The decision resulted in a pretax non-cash charge of \$63 million, or \$41 million after tax, in 2001. The net loss for 2001 included this \$41 million after-tax charge and Lyondell's 41% after-tax share, or \$6 million, of Equistar's Port Arthur shutdown costs.

- On March 31, 2000, Lyondell completed the sale of the polyols business and ownership interests in its U.S. PO manufacturing operations to Bayer for approximately \$2.45 billion. The sale of assets generated a total pretax gain of \$590 million, or \$400 million after tax, during 2000.
- The extraordinary losses on early debt retirement, net of income taxes of \$15 million in 2002, \$5 million in 2001 and \$33 million in 2000 have been discussed above under "Extraordinary Losses."

Beyond the items described above, the increased net loss in 2002 compared to 2001 was primarily due to lower product margins at Lyondell and Equistar in 2002 as a result of ongoing industry overcapacity.

In addition to the impact of the items described above, the net loss in 2001 compared to net income in 2000 was primarily the result of lower product margins and volumes at Lyondell and Equistar as a result of weaker global economies in 2001, partly offset by Lyondell's lower interest expense and higher earnings at LCR. Lyondell's 2001 interest expense decreased compared to 2000 due to the full-year effect of debt reductions made during 2000. LCR's refining operations benefited from higher margins and increased deliveries under the CSA with PDVSA Oil.

Pro Forma—The following condensed income statement presents the unaudited pro forma consolidated operating results for 2000 as if the March 31, 2000 sale of the polyols business had occurred as of the beginning of 2000. The pro forma income statement assumes that net proceeds of \$2.05 billion were used to retire debt in accordance with the provisions of Lyondell's credit facility and indentures as of the beginning of 2000. The operating results for 2000 exclude the after-tax gain on the asset sale of \$400 million, or \$3.40 per share.

<u>In millions, except per share data</u>	<u>Year ended December 31, 2000</u>
Sales and other operating revenues	\$ 3,783
Operating income	324
Interest expense	451
Income from equity investments	199
Net income from continuing operations	95
Basic and diluted income per share from continuing operations	.81

The unaudited pro forma data presented above are not necessarily indicative of the results of operations of Lyondell that would have occurred had such transactions actually been consummated as of the indicated dates, nor are they necessarily indicative of future results.

Fourth Quarter 2002 versus Third Quarter 2002

Lyondell's fourth quarter 2002 net loss of \$93 million compares to a net loss for the third quarter 2002 of \$2 million. While the fourth quarter 2002 included an \$8 million after-tax extraordinary charge from early debt retirement, a substantial portion of the decrease in profitability was due to lower operating results in Equistar's petrochemicals and polymers segments, and Lyondell's increased equity interest therein, as well as lower operating results in Lyondell's IC&D segment in the fourth quarter 2002. Equistar's and Lyondell's business segments were affected by higher raw material and energy costs, scheduled maintenance turnaround activity, the normal seasonality of some products and weaker demand in the fourth quarter 2002 due to ongoing economic and political uncertainties.

Higher raw material costs in the fourth quarter 2002 impacted Equistar and Lyondell. Energy costs also increased in the fourth quarter 2002, particularly impacting Equistar's operating results. Scheduled maintenance turnarounds also negatively impacted both Equistar's products and Lyondell's TDI business during the fourth quarter 2002. These effects were partly offset as LCR's earnings increased despite a national strike in Venezuela that negatively affected CSA deliveries in December 2002. While LCR received and processed full CSA volumes

during October and November 2002, in December 2002, it drew down CSA crude oil inventory levels, which had a positive effect on earnings.

Intermediate Chemicals and Derivatives (IC&D) Segment

Overview—The IC&D segment produces and markets propylene oxide (“PO”), PO derivatives, toluene diisocyanate (“TDI”), styrene monomer (“SM”) and methyl tertiary butyl ether (“MTBE”), the principal derivative of tertiary butyl alcohol (“TBA”).

Approximately 1.1 billion pounds of new industry PO capacity, or nearly 10% of existing worldwide capacity, was added in 2000, primarily in Europe. During the third quarter 2002, a competitor’s propylene oxide/styrene monomer (“PO/SM”) facility started up in Singapore, adding approximately 4% and 3% to worldwide PO and SM capacity, respectively. PO and derivatives markets continue to be adversely affected by excess capacity as a result of recent capacity additions, which have not yet been fully absorbed by demand growth.

Weaker demand for most products during 2001 put pressure on prices and margins despite decreasing raw material costs. Demand for products in the IC&D segment in 2001 was negatively affected by the weaker global economy. During 2002, the IC&D segment benefited from stronger domestic demand, including increased demand in urethanes end-use markets such as automotive, housing, and home furnishings. This resulted in generally higher sales volumes in 2002 compared to 2001. However, the increased demand did not benefit industry margins for PO derivatives, which continue to be negatively affected by industry overcapacity.

In the U.S., the cost of propylene, a key raw material, trended downward in 2001 after peaking in mid-2000. Average benchmark propylene costs decreased 23% to 17.42 cents per pound in 2001 compared to 22.63 cents per pound in 2000. However, propylene costs rose in 2002, peaking in mid-year and averaging 18.00 cents per pound, or 3% higher than in 2001.

During June 2002, Lyondell completed construction of a new butanediol (“BDO”) production facility in Europe, known as BDO-2. Production of BDO commenced in July 2002. Lyondell also commenced lease payments under the BDO-2 operating lease in July 2002. See “Liquidity and Capital Resources – Operating Leases” below and Note 14 to the Consolidated Financial Statements.

The following table sets forth volumes, including processing volumes, included in sales and other operating revenues for this segment. Volumes for the polyols business, sold on March 31, 2000, are included through the date of sale. The ownership interest of Bayer AG and Bayer Corporation (collectively “Bayer”) in a PO joint venture (“PO Joint Venture”) entered into by Lyondell and Bayer as part of an asset sale transaction represents ownership of an in-kind portion of the PO production of the PO Joint Venture. Bayer’s share of the PO production from the PO Joint Venture is approximately 1.5 billion pounds annually. Lyondell takes in kind the remaining PO production and all SM and TBA co-product production from the PO Joint Venture. Bayer’s PO volumes are not included in sales and are excluded from the table below. See Note 6 to the Consolidated Financial Statements.

	For the year ended December 31,		
	2002	2001	2000
<u>Volumes, in millions</u>			
PO, PO derivatives, TDI (pounds)	3,028	2,803	3,393
Co-products:			
SM (pounds)	3,337	3,132	3,475
MTBE and other TBA and derivatives (gallons)	1,208	1,157	1,211
<u>Millions of dollars</u>			
Sales and other operating revenues	\$ 3,262	\$ 3,193	\$ 4,003
Operating income	174	112	929

Revenues—Revenues of \$3.3 billion in 2002 increased 2% from revenues of \$3.2 billion in 2001 as higher sales volumes were substantially offset by lower sales prices. Sales volumes for PO and derivatives increased 8% primarily due to higher demand for PO in urethanes markets and higher BDO volumes due to the BDO-2 plant start up in 2002. These higher volumes were partly offset by lower TDI sales volumes and the absence of ADI sales due to, respectively, 2002 TDI maintenance turnarounds and the shut down of the ADI operations in the third quarter 2001. Sales volumes also increased 7% for SM and 4% for TBA and derivatives, primarily MTBE, in 2002 compared to 2001. Higher SM sales volumes in 2002 were due to the expected start up of a new PO/SM plant in The Netherlands and higher export sales, primarily to Asia. The lower 2002 average sales prices were primarily due to lower sales prices for PO and derivatives and MTBE. The lower 2002 PO and derivatives average sales prices, to a large extent, reflected weaker demand for PO derivatives and industry overcapacity. The lower 2002 MTBE average sales prices primarily reflected lower gasoline prices in 2002 compared to 2001.

Revenues of \$3.2 billion in 2001 decreased from \$4.0 billion in 2000 partly due to the sale of the polyols business as of March 31, 2000. The polyols business accounted for \$220 million in sales revenues and 408 million pounds in sales volumes in 2000. Apart from the effect of the sale of the polyols business, sales revenues decreased \$590 million, or 15%, compared to 2000 due to lower prices and lower volumes, reflecting weaker demand in 2001. SM accounted for nearly half of this decrease on significantly lower prices and 10% lower volumes. Benchmark spot SM prices in the U.S. averaged 24% lower in 2001 than in 2000 when SM markets were stronger in the first half of the year. Volumes for PO and derivatives, including TDI, were 6% lower on weak demand, particularly in urethanes markets. MTBE prices and volumes also declined from 2000 when gasoline markets and demand for MTBE were much stronger than in 2001.

Gain on Sale of Assets—On March 31, 2000, Lyondell sold the polyols business and ownership interests in its U.S. PO manufacturing operations to Bayer for approximately \$2.45 billion. As part of the transaction, Lyondell and Bayer entered into the PO Joint Venture and a separate PO technology joint venture (“PO Technology Joint Venture”). See Note 6 to the Consolidated Financial Statements for a description of these joint ventures. The sale of assets to Bayer generated a pretax gain in 2000 of \$590 million, or \$400 million after tax.

Operating Income—Operating income of \$174 million in 2002 increased \$62 million from \$112 million in 2001. However, operating income in 2001 included a \$63 million restructuring charge and \$30 million of goodwill amortization. Apart from these items, 2002 operating income decreased \$31 million from 2001. The decrease primarily reflected lower product margins for PO derivatives and higher fixed costs due to the startup of the new BDO-2 plant. These negative effects were partly offset by the benefits of higher SM and TDI margins, higher sales volumes and the sale of the unprofitable ADI business in the third quarter 2001. Lower PO derivatives margins reflected a weaker pricing environment in 2002 as noted above. Higher SM margins reflected a stronger SM market in most of 2002 compared to 2001. TDI margins improved on lower raw materials costs and supply shortages that led to higher sales prices in 2002.

Operating income of \$112 million in 2001 decreased \$817 million from operating income of \$929 million in 2000. The decrease was primarily due to the gain on sale of assets to Bayer of \$590 million in 2000, lower margins and volumes for TDI, SM and PO in 2001, the \$63 million restructuring charge in 2001, described above, and the sale of the polyols business on March 31, 2000. TDI margins and volumes were down significantly in 2001 due to weak demand in urethanes markets, which also affected PO. SM margins and volumes decreased significantly due to weak market conditions in 2001. Decreases in selling, general and administrative expenses, as well as in research and development expenses in 2001 compared to 2000 reflected the effects of the sale of the polyols business, cost reduction efforts and a lower level of business activity in 2001. Both 2001 and 2000 included goodwill amortization.

Fourth Quarter 2002 versus Third Quarter 2002

Fourth quarter 2002 operating income of \$12 million decreased \$47 million from third quarter 2002 operating income of \$59 million. The fourth quarter 2002 was negatively impacted by higher energy costs, lower TDI sales volumes and margins and seasonally lower MTBE margins and volumes. TDI turnaround maintenance activity resulted in the lower TDI sales volumes, while TDI margins were negatively impacted by high energy and raw material costs. The fourth quarter 2002 MTBE contribution to operating income decreased as a result of lower

volumes and typical seasonally lower margins. The fourth quarter 2002 SM contribution to operating income was relatively unchanged from the third quarter 2002. Fourth quarter 2002 PO and derivatives volumes were negatively impacted by holiday shutdowns at some of Lyondell's customers. Overall, PO and derivatives volumes decreased 3% compared to the third quarter 2002.

Equistar Chemicals, LP

Overview

For the year 2002, U.S. ethylene demand was estimated to be 2.8% higher than for 2001. Nonetheless, the 2002 demand growth was insufficient to absorb excess worldwide ethylene industry capacity and to fully offset the effects of a 9.9% contraction in U.S. ethylene demand in 2001 compared to 2000.

Crude oil and natural gas prices generally have been indicators of the level and direction of movement of raw material and energy costs for Equistar. The following table shows the average benchmark prices for crude oil and natural gas for the three-year comparison period as well as benchmark sales prices for ethylene and co-product propylene, which Equistar produces and sells. The benchmark weighted average cost of ethylene is based on the estimated ratio of petroleum liquids, or heavy liquids, and natural gas liquids ("NGLs"), or light raw materials, used in U.S. ethylene production and is subject to revision.

	Average Benchmark Price for the Year and Percent Change Versus Prior Year Average				
	2002	Percent Change	2001	Percent Change	2000
Crude oil – dollars per barrel	26.12	2 %	25.73	(14)%	30.06
Natural gas – dollars per million BTUs	3.22	(25)%	4.28	10 %	3.88
Weighted average cost					
of ethylene – cents per pound	15.10	(13)%	17.41	(11)%	19.62
Ethylene – cents per pound	22.23	(16)%	26.33	(13)%	30.19
Propylene – cents per pound	18.00	3 %	17.42	(23)%	22.63

The considerable volatility in raw material prices during the three-year period is not apparent in the annual average raw material prices shown in the table above. For example, the benchmark price of crude oil trended upward from a low of \$27.10 per barrel in January 2000 to a high of \$34.30 per barrel in November 2000, a 27% increase. Benchmark crude oil prices then trended downward to a low of \$19.30 per barrel in December 2001, a 44% decrease from the November 2000 high. During 2002, benchmark crude oil prices trended upward to \$29.50 per barrel in December 2002, a 53% increase from the December 2001 low. Benchmark natural gas prices rose from \$2.34 per million BTUs in January 2000 to a historical high of \$9.84 per million BTUs in January 2001, a 320% increase. Benchmark natural gas prices then trended downward to a low of \$1.82 per million BTUs in October 2001, an 81% decrease from the January 2001 spike. During 2002, benchmark natural gas prices resumed an upward trend, increasing to \$4.05 per million BTUs in December 2002, a 123% increase from the October 2001 low.

Significant volatility in raw material costs tends to put pressure on product margins, as sales price increases generally tend to lag behind raw material cost increases. Conversely, when raw material costs decrease, customers tend to demand immediate relief in the form of lower sales prices. These dynamics are particularly pronounced during periods of excess industry capacity and contributed to the trough conditions experienced by the chemical industry in 2001 and 2002.

RESULTS OF OPERATIONS

Net Income (Loss)—Equistar had a 2002 net loss of \$246 million, before the cumulative effect of an accounting change, compared to a 2001 net loss of \$283 million. The 2001 period included \$33 million of goodwill amortization, \$22 million of shutdown costs for Equistar's Port Arthur, Texas polyethylene facility and a \$3 million extraordinary loss due to debt retirement. Apart from these items, the net loss for 2001 would have been \$225 million compared to the net loss of \$246 million for 2002. This \$21 million increase in the net loss primarily reflected a \$129 million decrease in petrochemicals segment operating income and \$13 million of higher interest expense, partly offset by a \$112 million improvement in the polymers segment operating loss. Petrochemicals segment operating income decreased as sales prices decreased more than raw material costs, resulting in lower petrochemicals product margins in 2002 compared to 2001. The polymers segment operating loss was reduced as raw material costs, primarily ethylene and propylene, decreased more than the decreases in average polymers product sales prices, resulting in higher polymers product margins in 2002 compared to 2001.

Equistar had a net loss in 2001 of \$283 million compared to net income of \$153 million for 2000. The significant decrease of \$436 million primarily reflected lower petrochemicals segment margins as well as lower volumes for both the petrochemicals and polymers segments. The lower petrochemicals margins were due to lower sales prices, which decreased more than raw material costs, in 2001 compared to 2000. The lower sales prices and volumes reflected weaker industry demand in 2001. The polymers segment 2001 operating loss was comparable to 2000. Results for 2001 also included the \$22 million of costs associated with the shutdown of the Port Arthur, Texas polyethylene facility in the first quarter 2001. Both periods included goodwill amortization.

Fourth Quarter 2002 versus Third Quarter 2002

Equistar had a net loss of \$114 million in the fourth quarter 2002 compared to net income of \$22 million in the third quarter 2002. Fourth quarter 2002 performance was primarily impacted by higher raw material costs. The benchmark cost of ethylene production increased by approximately 3 cents per pound, or 22%, in the fourth quarter 2002 compared to the third quarter 2002. During the fourth quarter 2002 these cost increases were only partly offset by a 1 cent per pound reported increase in benchmark ethylene sales prices. Equistar also was affected by a scheduled maintenance turnaround of the Chocolate Bayou, Texas olefins plant in the fourth quarter 2002. This heavy liquid cracking plant has significant co-product production capabilities and normally further processes olefins by-product volumes from other Equistar plants and from outside purchases. Equistar was not able to utilize this capability during the turnaround.

Segment Data

The following tables reflect selected sales volume data, including intersegment sales volumes, and summarized financial information for Equistar's business segments.

<u>In millions</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Selected petrochemicals products:			
Olefins (pounds)	16,851	16,236	18,490
Aromatics (gallons)	369	366	397
Polymers products (pounds)	6,098	5,862	6,281
 <u>Millions of dollars</u>			
Sales and other operating revenues:			
Petrochemicals segment	\$ 4,957	\$ 5,384	\$ 7,031
Polymers segment	1,868	1,980	2,351
Intersegment eliminations	(1,288)	(1,455)	(1,887)
Total	<u>\$ 5,537</u>	<u>\$ 5,909</u>	<u>\$ 7,495</u>
 Operating income (loss):			
Petrochemicals segment	\$ 146	\$ 275	\$ 694
Polymers segment	(74)	(186)	(185)
Unallocated	(116)	(188)	(175)
Total	<u>\$ (44)</u>	<u>\$ (99)</u>	<u>\$ 334</u>

Petrochemicals Segment

Revenues—Revenues of \$5.0 billion in 2002 decreased 8% compared to revenues of \$5.4 billion in 2001 as lower 2002 average sales prices were only partly offset by a 4% increase in sales volumes. Equistar's sales prices in 2002 averaged 11% lower than in 2001, reflecting lower raw material costs and low demand growth coupled with excess industry capacity. Benchmark ethylene sales prices averaged 22.2 cents per pound in 2002, a 16% decrease compared to 2001. These lower ethylene sales prices were slightly offset by higher 2002 propylene sales prices. Benchmark propylene sales prices averaged 3% higher in 2002 than in 2001.

Revenues of \$5.4 billion in 2001 decreased 23% compared to revenues of \$7.0 billion for 2000 as a result of lower average sales prices and lower sales volumes in 2001. Benchmark ethylene sales prices averaged 13% lower in 2001 compared to 2000, while benchmark propylene sales prices averaged 23% lower. Equistar's sales volumes decreased 12% compared to 2000 due to weaker business conditions in 2001.

Operating Income—Operating income of \$146 million in 2002 decreased \$129 million from \$275 million in 2001 as sales prices decreased more than raw material costs, resulting in lower product margins. The effect of the lower 2002 product margins was only partly offset by the benefit of a 4% increase in sales volumes, which was in line with industry demand growth.

Operating income of \$275 million in 2001 decreased \$419 million from \$694 million in 2000. The decrease was primarily due to lower product margins and, to a lesser extent, lower sales volumes. The lower margins primarily reflected lower sales prices for ethylene and for co-products, such as propylene and benzene, in 2001 compared to 2000. The lower prices and volumes were due to weaker market demand in 2001 compared to 2000.

Polymers Segment

Revenues—Revenues of \$1.9 billion in 2002 decreased 6% compared to revenues of \$2.0 billion in 2001 due to a 9% decrease in average sales prices offset by a 4% increase in sales volumes. Lower sales prices in 2002 reflected generally lower raw material costs compared to 2001. Sales volumes increased due to stronger demand in 2002 compared to 2001.

Revenues of \$2.0 billion in 2001 decreased 16% compared to revenues of \$2.4 billion in 2000 due to a decrease in average sales prices and a 7% decrease in sales volumes. The decreases in sales prices and volumes were both due to weaker demand in 2001.

Operating Loss—The operating loss of \$74 million in 2002 decreased \$112 million compared to the operating loss of \$186 million in 2001. The \$112 million improvement was due to higher polymers product margins and, to a lesser extent, higher sales volumes. Margins improved in 2002 compared to 2001, as decreases in sales prices were less than the decreases in polymers raw material costs.

The 2001 operating loss of \$186 million was comparable to the operating loss of \$185 million in 2000 as the effect of lower polymers sales prices was offset by lower raw material costs.

Unallocated Items

The following discusses costs and expenses that were not allocated to the petrochemicals or polymers segments.

Other Operating Costs and Expenses—These include unallocated general and administrative expenses and, in 2001 and 2000, goodwill amortization. In addition, 2001 included facility closing costs of \$22 million. Unallocated expenses were \$116 million in 2002, \$188 million in 2001 and \$175 million in 2000. The decrease from 2001 to 2002 was primarily due to goodwill amortization of \$33 million that ceased in 2002 (see Note 2 to the Consolidated Financial Statements) and the \$22 million of facility closing costs included in 2001.

Equistar discontinued production at its higher-cost Port Arthur, Texas polyethylene facility in February 2001 and shut down the facility. During 2001, Equistar recorded a \$22 million charge, which included environmental remediation liabilities of \$7 million, other exit costs of \$3 million and severance and pension benefits of \$7 million for approximately 125 people employed at the Port Arthur facility. The remaining \$5 million balance primarily related to the write down of certain assets.

LYONDELL-CITGO Refining LP

Lyondell's activities in the refining segment are conducted through its interest in LCR.

Refining Segment

Overview—Beginning in 1998, PDVSA Oil declared a force majeure and began reducing deliveries to LCR under the CSA from the 230,000 barrels per day contractual rate and did not restore them to the 230,000 barrels per day contractual level until October 2000. See “*Crude Supply Agreement*” section of Note 18 to the Consolidated Financial Statements. During 2000, processing of CSA volumes averaged 196,000 barrels per day, which forced LCR to make spot purchases of crude oil to maintain production levels. A strong gasoline market during 2000 helped improve the margins that LCR realized on its spot purchases of crude oil.

During 2001, processing of extra heavy Venezuelan crude oil under the CSA averaged 229,000 barrels per day, despite a major maintenance turnaround in the fourth quarter 2001 as volumes were accelerated into the first nine months of 2001. This resulted in higher than contract level CSA crude oil processing rates during the first nine months of 2001, allowing LCR to attain the near-contract processing rate of 229,000 barrels per day for the full year 2001. The strong gasoline market continued through the third quarter 2001, benefiting LCR's margins on spot purchases of crude oil.

Beginning in March 2002, PDVSA Oil again reduced deliveries of extra heavy Venezuelan crude oil to LCR under the CSA based on a declaration of force majeure. Although deliveries were restored to contract levels in the third quarter 2002, during the fourth quarter 2002, a national strike in Venezuela again disrupted deliveries of CSA crude oil to LCR. LCR compensated for this loss of supply through reductions of CSA inventory and increased spot purchases of crude oil. The net combination of these factors resulted in lower average CSA crude oil processing rates of 213,000 barrels per day for the full year 2002. Weaker industry refining margins during 2002 reduced the margins that LCR realized on its spot purchases of crude oil compared to 2001, when industry refining margins were relatively higher.

The following table sets forth, in thousands of barrels per day, sales volumes for LCR's refined products and processing rates at the refinery for the periods indicated:

	For the year ended December 31,		
	2002	2001	2000
Refined products sales volumes:			
Gasoline	115	101	118
Diesel and heating oil	84	71	72
Jet fuel	18	20	19
Aromatics	9	8	11
Other refined products	96	107	105
Total refined products volumes	322	307	325
Crude processing rates:			
Crude Supply Agreement	213	229	196
Other crude oil	46	19	49
Total crude processing rates	259	248	245

Revenues—Revenues for LCR, including intersegment sales, were \$3.4 billion in 2002, \$3.3 billion in 2001 and \$4.1 billion in 2000. Revenues for 2002 increased 3% compared to 2001. The increase was primarily due to a 5% increase in sales volumes, partly offset by lower sales prices. Total crude processing rates averaged 259,000 barrels per day in 2002, a 4% increase compared to 248,000 barrels per day in 2001. Spot market crude processing rates, however, averaged 46,000 barrels per day in 2002 compared to only 19,000 barrels per day in 2001 as a result of lower CSA crude oil deliveries in 2002.

Revenues for 2001 decreased 19% compared to 2000. The decrease was primarily attributable to lower sales prices and lower sales volumes, which decreased nearly 6%. The lower sales prices generally reflected downward pressure from lower crude oil prices in 2001 compared to 2000. The lower 2001 sales volumes were primarily due to the effects of the fourth quarter 2001 turnaround.

Interest Expense—LCR's net interest expense was \$32 million in 2002, \$51 million in 2001 and \$61 million in 2000. Interest expense included interest on loans payable to partners of \$6 million in 2002, \$12 million in 2001, and \$18 million in 2000. Interest expense decreased in 2002 compared to 2001 due to lower interest rates, which benefited LCR's variable-rate debt, and lower amortization expense related to debt issuance costs. Debt issuance cost amortization was higher in 2001 as a result of the refinancing of LCR's debt in May 2000 and again in September 2000. LCR's debt was refinanced again in July 2001 and December 2002. Interest expense also decreased in 2001 compared to 2000 due to lower interest rates.

Extraordinary Loss—LCR had a \$1 million extraordinary loss in 2002 and a \$2 million extraordinary loss in 2001, both related to the early retirement of its \$450 million term loan and \$70 million revolving credit facility, which were refinanced in December 2002 and July 2001. See "LCR Liquidity and Capital Resources" below. The extraordinary losses consisted of the write-off of unamortized debt issuance costs.

Net Income—LCR's net income was \$213 million in 2002, \$203 million in 2001 and \$128 million in 2000. While LCR's 2002 net income of \$213 million was comparable to net income of \$203 million in 2001, there were significant offsetting factors. In 2002, as noted in the "Overview" above, LCR's net income was negatively impacted by lower CSA crude oil deliveries compared to 2001. LCR maintained 2002 crude oil processing levels through increased purchases of spot market crude oil, which had significantly lower margins in 2002 compared to 2001 and compared to CSA crude oil margins. The negative effects of lower CSA volumes and lower spot margins in 2002 were partly offset by lower energy costs and lower interest costs compared to 2001. In addition, a major planned maintenance turnaround in the fourth quarter 2001 and an outage related to Tropical Storm Allison in the second quarter 2001 negatively affected 2001 operating results.

The \$75 million net income improvement in 2001 compared to 2000 was primarily due to higher margins and increased deliveries under the CSA, higher margins on spot market volumes and lower fixed costs. These benefits were partly offset by the effect of the major fourth quarter 2001 planned turnaround and higher natural gas costs. The negative impact of the turnaround on operating results was estimated at approximately \$60 million. LCR had unplanned outages in 2001 that negatively affected operating results during the first nine months of 2001. However, LCR had a planned turnaround in the second quarter 2000 that had a similar negative effect on operating results during 2000.

Fourth Quarter 2002 versus Third Quarter 2002

LCR had net income of \$59 million in the fourth quarter 2002, a \$9 million increase compared to net income of \$50 million in the third quarter 2002. Despite a brief rate reduction in late December 2002 due to the strike in Venezuela, LCR processed approximately 209,000 barrels per day of CSA crude oil in the fourth quarter 2002 compared to 212,000 barrels per day in the third quarter 2002. LCR maintained the 209,000 barrels per day CSA processing rate partly as a result of drawing down CSA crude oil inventory. Spot market crude oil volumes decreased 20%, but margins were higher than third quarter 2002, leading to a higher fourth quarter 2002 contribution from spot crude oil purchases. Increases in the cost of natural gas were offset by processing lower-cost crude oil from inventory and by timing impacts inherent in the CSA terms.

FINANCIAL CONDITION

Operating Activities—Lyondell's operating activities in 2002 generated cash of \$289 million compared to \$199 million in 2001 and \$61 million in 2000. The increase in 2002 compared to 2001 was primarily due to a 2002 federal income tax refund of \$97 million and \$83 million of lower 2002 cash expenditures for maintenance turnarounds, systems implementation, interest and employee benefits, partly offset by a \$136 million lower benefit from reductions in the controllable components of working capital – receivables, inventory and payables. The income tax refund, received in 2002, was reflected in prepaid expenses and other current assets at December 31, 2001. Although other noncurrent liabilities increased \$60 million at December 31, 2002 on the Consolidated Balance Sheets, the increase was primarily due to the minimum pension liability, which did not affect cash flow. See "Pension Obligations" below.

Investing Activities—On August 22, 2002, Lyondell increased its equity interest in Equistar by acquiring Occidental's 29.5% interest. See Notes 7 and 19 to the Consolidated Financial Statements, "Items 1 and 2 – Business and Properties-Development of Business" and "Financing Activities" below. As a result, Lyondell currently has a 70.5% interest in Equistar. In connection with the acquisition, Lyondell issued certain equity securities and a contingent right to Occidental. These transactions included concurrent payments between the parties of agreed amounts of approximately \$440 million. The agreed amounts exchanged are included in cash used for investing activities and cash from financing activities.

The following table summarizes the 2002, 2001 and 2000 capital expenditures of Lyondell and its principal joint ventures as well as their 2003 capital budgets:

<u>Millions of dollars</u>	<u>Budget</u> <u>2003</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Capital expenditures – 100% basis:				
Lyondell	\$ 58	\$ 22	\$ 68	\$ 104
Equistar	97	118	110	131
LCR	71	65	109	60
Capital expenditures – Lyondell share:				
Lyondell	\$ 58	\$ 22	\$ 68	\$ 104
Equistar	68	73	45	54
LCR	42	38	64	35
Total capital expenditures	<u>168</u>	<u>133</u>	<u>177</u>	<u>193</u>
Contributions to PO-11 Joint Venture	70	55	110	--
Contributions to PO Joint Venture	3	9	--	--
Total capital	<u>\$ 241</u>	<u>\$ 197</u>	<u>\$ 287</u>	<u>\$ 193</u>

Lyondell's 2002 and 2001 capital expenditures included spending for regulatory compliance, maintenance and cost reduction projects. Lyondell's higher 2000 capital expenditures included initial spending on the PO-11 project prior to formation of the PO-11 Joint Venture with Bayer (see Note 6 to the Consolidated Financial Statements), and expansion of a TDI plant in France.

Lyondell's 2003 capital spending will increase over 2002 levels as a result of the timing of contributions related to the PO-11 project, which is expected to be completed in the second half of 2003. Changes in the timing of other projects also shifted spending from 2002 into 2003.

Equistar's 2002 capital expenditures included \$47 million related to the early termination and expiration of certain railcar leases. Equistar may pursue new leases for a portion of these railcars. See "Equistar Liquidity and Capital Resources – Railcar Leases." Increases in Equistar's capital budget in 2003 result from spending to ensure regulatory and environmental compliance.

LCR had higher 2001 capital expenditures as projects were scheduled to take advantage of the major planned maintenance turnaround during the fourth quarter 2001.

The following table summarizes Lyondell's 2002, 2001 and 2000 cash distributions from and cash contributions to its principal joint ventures:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Cash distributions from joint ventures:			
Equistar	\$ --	\$ --	\$ 114
LCR	126	165	144
LMC	--	10	17
Other	--	5	--
Total	<u>\$ 126</u>	<u>\$ 180</u>	<u>\$ 275</u>
Cash contributions to joint ventures:			
Equistar	\$ --	\$ --	\$ --
LCR	46	46	35
PO-11 Joint Venture	55	110	--
PO Joint Venture	9	--	--
LMC	4	9	5
Total	<u>\$ 114</u>	<u>\$ 165</u>	<u>\$ 40</u>

Equistar made no cash distributions to its partners during 2002 and 2001 as a result of continuing adverse conditions in the industry and its debt service obligations. Furthermore, LCR deferred a portion of fourth quarter 2002 cash distributions as a result of uncertainties in cash flow stemming from the national strike in Venezuela. LCR resumed cash distributions in the first quarter of 2003. However, the timing and level of future distributions remains uncertain.

During 2002, Lyondell contributed \$3 million to a mutual insurance company formed by Lyondell and other companies in the industry, including Equistar and LCR, to provide catastrophic business interruption and excess property damage insurance coverage for its members.

Financing Activities—On August 22, 2002, Lyondell completed certain transactions with Occidental. As a result of these transactions, Occidental received an equity interest in Lyondell, including:

- 34 million shares of newly issued Lyondell Series B common stock;
- five-year warrants to acquire five million shares of Lyondell original common stock at \$25 per share; and
- a right to a contingent payment equivalent in value to 7.38% of Equistar's cash distributions related to 2002 and 2003, up to a total of \$35 million, payable in cash, Series B common stock or original common stock, as determined by Lyondell.

As a result of the transactions with Occidental, Lyondell has two series of common stock outstanding, original common stock and Series B common stock. Lyondell paid a regular quarterly cash dividend of \$0.225 per share of original common stock in the first three quarters of 2002, totaling \$81 million. On October 2, 2002, the board of directors of Lyondell declared a regular quarterly dividend of \$0.225 per share of original common stock to shareholders of record as of the close of business on November 25, 2002. The regular quarterly dividend on each share of outstanding original common stock totaling \$28 million was paid in cash on December 16, 2002. Lyondell elected to pay the regular quarterly dividend on each share of outstanding Series B common stock in kind in the form of 568,224 shares of Series B common stock on December 31, 2002.

Following these transactions, Occidental has an approximate 22% equity interest in Lyondell as of December 31, 2002.

In December 2002, Lyondell issued \$337 million principal amount of 9.5% senior secured notes due 2008, using net proceeds, after discount and fees, of \$321 million to prepay \$315 million of the principal amount outstanding under Term Loan E of the credit facility and to pay a \$6 million prepayment premium.

In early July 2002, Lyondell completed debt and equity offerings, as well as amendments to its credit facility, to the BDO-2 transaction documents and to the indentures related to its senior notes, increasing cash by

approximately \$160 million. Lyondell issued \$278 million principal amount of 11.125% senior secured notes due 2012, using proceeds of \$204 million to prepay \$200 million of the principal amount outstanding under Term Loan E of the credit facility and to pay a \$4 million prepayment premium. The remaining net proceeds, after discount and fees, of approximately \$65 million were used for working capital and general corporate purposes. Lyondell also issued 8.28 million shares of common stock, receiving net proceeds of \$110 million that were used for working capital and general corporate purposes.

The amended credit facility extended the maturity of the revolving credit facility from July 2003 to June 2005, reduced the size of the revolving credit facility from \$500 million to \$350 million, made certain financial ratio requirements less restrictive, made the covenant limiting acquisitions more restrictive and added a covenant limiting certain non-regulatory capital expenditures. The BDO-2 transaction documents were also amended to incorporate the revised covenants from the credit facility. Also, after receiving consents from the holders of the senior secured and senior subordinated notes, Lyondell amended the indentures related to those notes. The principal indenture amendment revised a limitation that had restricted payment of Lyondell's current \$0.90 per share annual cash dividend to a specified number of shares. As a result of the amendment, the number of shares with respect to which the \$0.90 per share annual cash dividend may be paid is no longer restricted by the covenants. Lyondell paid fees totaling \$17 million related to the amendments. Lyondell had previously obtained amendments to the credit facility and the financial ratio requirements in September 2001 and March 2001.

Lyondell also made debt payments of \$17 million during 2002 primarily using proceeds of certain asset sales, principally assets related to the ADI business, as required by the terms of the credit facility.

Deferred Tax Assets—The deferred tax assets classified as current assets decreased by \$242 million during 2002. The reduction primarily represented a change in the timing of anticipated realization of the tax benefits of domestic net operating loss ("NOL") carryforwards. These benefits, which are expected to be realized within the next few years, have been reclassified from current assets to net long-term liabilities on the consolidated balance sheet. Entering 2002, management believed that the benefit of these NOL carryforwards would be realized through reduction of U.S. taxes that otherwise would have been payable as a result of taxable earnings in 2002. However, operating results during 2002 were adversely affected by the escalation of raw material costs and by continuing disappointing economic conditions. The uncertainties created by the political unrest in the Middle East and elsewhere compounded the uncertainty as to the timing and extent of the anticipated upturn in world economic activity. Based on the above factors, management concluded that it was appropriate to classify the deferred tax assets related to the NOL carryforwards as non-current. There was no change in management's expectation that these deferred tax assets will be fully realized. See Note 17 to the Consolidated Financial Statements.

Liquidity and Capital Resources—Lyondell's balance sheet remains highly leveraged. As of December 31, 2002, long-term debt, including current maturities, totaled \$3.9 billion, or approximately 77% of total capitalization. In addition, as of December 31, 2002 Lyondell's joint ventures had approximately \$2.7 billion of debt (see "Joint Venture Debt" below) and Lyondell remains contingently liable as a guarantor of \$330 million of that debt.

In January 2003, Standard & Poor's ("S&P") rating service of The McGraw-Hill Companies placed Lyondell's debt on "CreditWatch" with negative implications, while Moody's Investors Service ("Moody's") changed the rating outlook on Lyondell's debt to negative from stable. Both agencies cited concern over the financial performance of LCR, while Moody's also cited continuing weak financial performance at Lyondell and Equistar. In February 2003, S&P took Lyondell off "CreditWatch," affirmed Lyondell's ratings and changed the rating outlook to negative. A downgrade of Lyondell's debt rating could affect its borrowing costs, its ability to refinance and could result in termination of the receivables sales agreement. See "Receivables Sales" below.

Lyondell's ability to pay or refinance its debt will depend on future operating performance, which will be affected by general economic, financial, competitive, legislative, regulatory, business and other factors, many of which are beyond its control. Lyondell believes that conditions will be such that cash balances, cash generated from operating activities, and funds from lines of credit will be adequate to meet anticipated future cash requirements, including scheduled debt repayments, necessary capital expenditures, ongoing operations and dividends. However, if future operating cash flows are less than currently anticipated, Lyondell may be forced to reduce or delay capital expenditures, sell assets, or reduce operating expenses.

At December 31, 2002, Lyondell had cash on hand of \$286 million and other short-term investments of \$44 million. In addition, the \$350 million revolving credit facility, which matures in June 2005, was undrawn at December 31, 2002. Amounts available under the revolving credit facility are reduced to the extent of certain outstanding letters of credit provided under the credit facility, which totaled \$49 million as of December 31, 2002.

In addition to long-term debt, Lyondell also is required to make payments relating to various other types of obligations, some of which were incurred in lieu of financing to obtain the right to use assets. The following tables summarize, as of December 31, 2002, Lyondell's minimum payments for long-term debt, operating leases, and other contractual obligations and guarantees for the next five years and thereafter.

<u>Millions of dollars</u>	<u>Payments Due By Period</u>						
	<u>Total</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>Thereafter</u>
Contractual obligations							
Long-term debt	\$ 3,927	\$ 1	\$ 1	\$ 151	\$ 50	\$ 1,900	\$ 1,824
Purchase obligations	1,340	155	149	120	121	121	674
Operating leases -							
Minimum lease payments	370	69	67	62	54	39	79
Residual value guarantee	162	--	--	--	--	162	--
Capital commitments	76	76	--	--	--	--	--
Total	<u>\$ 5,875</u>	<u>\$ 301</u>	<u>\$ 217</u>	<u>\$ 333</u>	<u>\$ 225</u>	<u>\$ 2,222</u>	<u>\$ 2,577</u>
	<u>Commitment Expiration By Period</u>						
	<u>Total</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>Thereafter</u>
Other commitments							
Guarantees of Equistar debt	\$ 330	\$ 29	\$ - -	\$ 1	\$ 150	\$ - -	\$ 150

Long-Term Debt—The amended credit facility and the amended indentures pertaining to Lyondell's senior secured notes and senior subordinated notes contain covenants that, subject to exceptions, restrict sale and leaseback transactions, lien incurrence, debt incurrence, dividends, investments, non-regulatory capital expenditures, certain payments, sales of assets and mergers. In addition, the credit facility requires Lyondell to maintain specified financial ratios and consolidated net worth, as defined in the credit facility. Financial ratio requirements under the Lyondell credit facility become increasingly restrictive on a quarterly basis. The breach of these covenants could permit the lenders to declare the loans immediately payable and could permit the lenders under Lyondell's credit facility to terminate future lending commitments. See Note 13 to the Consolidated Financial Statements for a description of Lyondell's long-term debt and credit facility.

Lyondell was in compliance with all such covenants as of December 31, 2002. As a result of continuing adverse conditions in the industry, in March 2003, Lyondell obtained amendments to its credit facility to provide additional financial flexibility by easing certain financial ratio requirements. The BDO-2 transaction documents were also amended to incorporate the revised covenants from the credit facility. See "Operating Leases" below.

Purchase Obligations—Lyondell is party to various unconditional obligations to purchase products and services, principally for utilities and industrial gases, as summarized in the above table. In addition to the items shown in the table above, Lyondell is committed to purchase minimum quantities of TDI at plant cost from Rhodia through 2016. Such annual commitments currently are estimated at approximately 200 million pounds of TDI per year. These commitments are designed to assure sources of supply and are not expected to be in excess of normal requirements. See the "Commitments" and "TDI Agreements" sections of Note 18 to the Consolidated Financial Statements for a description of Lyondell's commitments and contingencies, including these purchase obligations.

Operating Leases—Lyondell leases various facilities and equipment under noncancelable lease arrangements for various periods. See Note 14 to the Consolidated Financial Statements for related operating lease disclosures.

In July 2002, Lyondell began leasing a new butanediol ("BDO") production facility in The Netherlands, known as BDO-2, under an operating lease with an initial term of 5 years. Construction of the facility was financed by an unaffiliated entity that had been established for the purpose of serving as lessor with respect to this facility. Future minimum annual lease payments under the operating lease, amounting to \$13 million per year using December 31, 2002 exchange rates and interest rates, are equivalent to interest on the lessor's cost of construction.

Lyondell may, at its option, renew the lease for four additional five-year terms or may purchase the facility at any time during the lease terms at the lessor's cost of construction. If Lyondell does not exercise the purchase option before the end of the last renewal period, the facility will be sold. In the event the sales proceeds are less than the lessor's cost of construction, Lyondell will pay the difference to the lessor, but not more than the guaranteed residual value of 155 million euros, or \$162 million, using December 31, 2002 exchange rates. Note 14 to the Consolidated Financial Statements on lease commitments includes a description of this lease obligation.

Capital Commitments—At December 31, 2002, major capital commitments primarily consisted of Lyondell's 50% share of those related to the construction of a world-scale PO facility, known as PO-11, in The Netherlands. See the "Capital Commitments" section of Note 18 to the Consolidated Financial Statements for related capital commitment disclosures.

Advances from Customers—In addition to the items reflected in the table above, Lyondell received advances from customers in 1999 and 2000 in connection with long-term sales agreements under which Lyondell is obligated to deliver product at a price representing a discount from prevailing market prices. These advances are treated as deferred revenue and included in other liabilities. Lyondell amortizes this deferred revenue to earnings based on volumes shipped. The unamortized balance of such advances totaled \$104 million and \$120 million as of December 31, 2002 and 2001, respectively.

Receivables Sale— In December 2001, Lyondell amended its existing receivables purchase agreement with an independent issuer of receivables-backed commercial paper, extending the term until December 2004. Under the terms of the agreement, Lyondell agreed to sell, on an ongoing basis and without recourse, designated accounts receivable. Lyondell is obligated to sell new receivables as existing receivables are collected and must maintain, at least, certain minimum specified debt ratings on its senior secured and senior unsecured debt. The agreement currently permits the sale of up to \$85 million of domestic accounts receivable. See Note 9 to the Consolidated Financial Statements. The amount of receivables permitted to be sold is determined by a formula. As of December 31, 2002 and 2001, the balance of Lyondell's accounts receivable sold, which is not reflected in the table above, was \$65 million.

Pension Obligations — Lyondell maintains several defined benefit pension plans, as described in Note 16 to the Consolidated Financial Statements. At December 31, 2002, the projected benefit obligation for Lyondell's plans exceeded the fair value of plan assets by \$302 million. Subject to future actuarial gains and losses, as well as actual asset earnings, Lyondell will be required to fund the \$302 million, with interest, in future years. The minimum required contribution may reach an annual rate of approximately \$60 million by 2006, due to past investment losses and relatively low current contribution levels. Pension contributions were \$4 million, \$17 million and \$14 million for the years 2002, 2001 and 2000, and are estimated to be approximately \$5 million for 2003. During 2002, 2001 and 2000, Lyondell recorded additional minimum pension liabilities of \$60 million, \$130 million and \$16 million, respectively, with a charge to other comprehensive income. The \$206 million accrual, which is not reflected in the table above, recognized accumulated pension benefit obligations in excess of pension plan assets at December 31, 2002.

Guarantees of Equistar Debt—Lyondell is guarantor of \$300 million of Equistar debt and a co-obligor with Equistar for \$30 million of debt as described in Note 13 to the Consolidated Financial Statements.

Joint Venture Debt—At December 31, 2002, the outstanding debt of Lyondell's joint ventures to parties other than Lyondell was \$2.2 billion for Equistar and \$485 million for LCR. This debt is not carried on Lyondell's balance sheet because, except for the amounts described in the preceding section, Lyondell has no obligation with respect to that debt. The ability of the joint ventures to distribute cash to Lyondell is reduced by current adverse business conditions and their respective debt service obligations.

Equistar Liquidity and Capital Resources—Equistar's credit facility and the indenture governing Equistar's senior unsecured notes contain covenants that, subject to exceptions, restrict sale and leaseback transactions, investments, non-regulatory capital expenditures, certain payments, lien incurrence, debt incurrence, sales of assets and mergers. In addition, the credit facility requires Equistar to maintain certain specified financial ratios. The financial ratio requirements under the Equistar credit facility become increasingly restrictive on a quarterly basis. The breach of these covenants could permit the lenders to declare the loans immediately payable and could permit the lenders under Equistar's credit facility to terminate future lending commitments. Furthermore, a default under Equistar's debt instruments which results in, or permits, the acceleration of more than \$50 million of indebtedness would constitute a cross-default under Lyondell's credit facility.

Equistar obtained amendments to its credit facility in late March 2002, making certain financial ratio requirements less restrictive, making the covenant limiting acquisitions more restrictive and adding a covenant limiting certain non-regulatory capital expenditures. The amendment increased the interest rate on the credit facility by 0.5% per annum.

Equistar was in compliance with all covenants under its debt instruments as of December 31, 2002. As a result of continuing adverse conditions in the industry, in March 2003, Equistar obtained amendments to its credit facility to provide additional financial flexibility by easing certain financial ratio requirements.

Equistar has \$300 million principal amount of 8.5% notes outstanding that mature in the first quarter 2004. Equistar will seek appropriate opportunities to repay or refinance those notes, depending on available cash and market conditions.

Debt Ratings—During 2002, Equistar's debt rating was lowered by two major rating agencies, Moody's and S&P. Moody's reduced Equistar's noninvestment grade corporate debt rating from a Ba1 to a Ba3. S&P reduced Equistar's corporate debt rating from an investment grade BBB- to a noninvestment grade BB. Both agencies cited Lyondell's acquisition of Occidental's interest in Equistar as the reason for the downgrade. The agencies stated that the acquisition resulted in a concentration of credit risk with Lyondell, which now owns a 70.5% interest in Equistar and whose debt currently has a noninvestment grade credit rating. S&P also cited current trough conditions in the industry and Equistar's \$1.1 billion goodwill write off.

In January 2003, Moody's changed the rating outlook for both Equistar and Lyondell to negative from stable. Moody's cited its belief that Equistar's credit profile is limited by the financial strength of Lyondell, whose outlook was changed primarily as a result of concerns regarding LCR. The lowering of Equistar's debt rating could affect its borrowing costs, its ability to refinance in the future and could result in termination of the receivables sales agreement – see "Receivables Sale" below.

Railcar Leases—During 2002, Equistar leased certain railcars, under three operating leases, from unaffiliated entities established for the purpose of serving as lessors with respect to these leases. One of these operating leases remains outstanding at December 31, 2002. This lease includes an option for Equistar to purchase the railcars during the lease term. If Equistar does not exercise the purchase option, the affected railcars will be sold upon termination of the lease. In the event the sales proceeds are less than the related guaranteed residual value, Equistar will pay the difference to the lessor, but no more than the guaranteed residual value. As described above under "Debt Ratings", Equistar's debt rating was lowered during 2002, allowing the early termination of this railcar lease by the lessor. As a result, Equistar renegotiated the lease during 2002, resulting in a payment of additional fees and a \$17 million prepayment, which is being amortized over the remaining lease term through 2004. The prepayment reduced the guaranteed residual value under the lease, and reduced future lease payments. The guaranteed residual value at December 31, 2002 was \$83 million.

The other two railcar leases contained financial and other covenants substantially the same as those contained in Equistar's credit facility discussed above. Under one of the leases, Equistar amended the covenants to incorporate the March 2002 amendment to the credit facility. The amendment required the payment of additional fees and a \$17 million prepayment, which was amortized in full through December 2002, when the lease was terminated and Equistar entered into a new lease arrangement with another lessor. The new lease covered a substantial portion of

the subject railcars, and Equistar purchased the remaining railcars for \$10 million. The new operating lease contains standard terms and does not guarantee a residual value or contain financial or other non-standard covenants.

Under the third railcar lease, the covenants were automatically updated with the March 2002 amendment to the credit facility. This lease terminated in November 2002, and Equistar purchased the railcars for \$37 million. Equistar may pursue leases for a portion of the purchased railcars.

Receivables Sale—During October 2002, Equistar entered into an agreement with an independent issuer of receivables-backed commercial paper under which Equistar sold receivables and received cash proceeds of \$100 million. Under the terms of the agreement, Equistar agreed to sell, on an ongoing basis and without recourse, designated accounts receivable. Equistar is obligated to sell new receivables as existing receivables are collected. The agreement has annual renewal provisions for up to three years and is subject to maintaining a debt rating of at least B1 by Moody's and BB- by S&P. Equistar is seeking an amendment to reduce the minimum required debt ratings and expects the amendment to be effective prior to March 31, 2003. Upon entering into the agreement, the commitment under the revolving credit facility was reduced by \$50 million, to \$450 million, in accordance with the terms of the revolving credit facility and would not be restored if the receivables agreement were terminated. Equistar used the proceeds to reduce borrowing under the revolving credit facility and for general corporate purposes. As of December 31, 2002, the balance of Equistar's accounts receivable sold was \$81 million.

LCR Liquidity and Capital Resources—In December 2002, LCR completed the refinancing of its credit facilities, with a new \$450 million bank term loan facility and a \$70 million working capital revolving credit facility, both of which mature in June 2004. The facilities are secured by substantially all of the assets of LCR. They replaced LCR's \$450 million term loan and \$70 million revolving credit facility, which were scheduled to mature in January 2003. Loans payable to partners include \$229 million payable to Lyondell and \$35 million payable to CITGO. These loans have been extended and will mature in December 2004.

CURRENT BUSINESS OUTLOOK

In the first quarter 2003, the industry experienced significantly higher and more volatile energy and raw material costs than in the fourth quarter 2002. Lyondell and Equistar have responded by implementing price increases in the first quarter 2003 for substantially all of the products in the IC&D, petrochemicals and polymers segments. However, the amounts and timing of implementation of these price increases are unlikely to offset the impact of the raw material cost increases being experienced in the first quarter 2003.

At LCR, CSA deliveries have returned to contract levels, beginning in February 2003. Management believes that LCR has established both CSA and spot market sources of supply that will enable LCR to operate at high processing rates until the situation in Venezuela is resolved. However, LCR's earnings in the early part of the first quarter 2003 were negatively affected by the national strike in Venezuela that began in early December 2002. As a result of reduced CSA crude oil deliveries and a subsequent and related force majeure declaration, which recent media reports indicate has been lifted, LCR purchased significant volumes of crude oil from alternate sources during January 2003. The crude oil from these alternate sources did not completely offset the financial impact of the reduced CSA supplies from Venezuela.

Industry analysts forecast that the olefins industry will experience improved supply/demand conditions in 2003, driven by industry announcements of plant shutdowns and maintenance turnarounds. However, unless global economic uncertainties and energy market issues are resolved, the impact of high raw material and energy costs could outweigh these benefits and could depress demand. If global economic uncertainties and energy market issues are resolved, it should result in reduced raw material costs and increased industrial activity, which would benefit Lyondell's and Equistar's operations.

RELATED PARTY TRANSACTIONS

Lyondell makes significant purchases of raw materials from Equistar and provides significant administrative services to Equistar. In addition, Equistar and LCR, as well as other parties related to Equistar and LCR, engage in significant transactions among themselves. Lyondell believes that such related party transactions are effected on terms substantially no more or less favorable than those that would have been agreed upon by third parties on an arm's-length basis. See Notes 7 and 8 to the Consolidated Financial Statements for further discussion of transactions involving Lyondell, Equistar and LCR. Transactions between Lyondell and Occidental of a trade nature in 2002 were not significant.

CRITICAL ACCOUNTING POLICIES

Lyondell applies those accounting policies that management believes best reflect the underlying business and economic events, consistent with accounting principles generally accepted in the U.S. Lyondell's more critical accounting policies include those related to the basis of presentation, long-lived assets, including the costs of major maintenance turnarounds and repairs, accruals for long-term employee benefit costs such as pension and postretirement costs, as well as accruals for taxes based on income. Inherent in such policies are certain key assumptions and estimates made by management. Management periodically updates its estimates used in the preparation of the financial statements based on its latest assessment of the current and projected business and general economic environment. Lyondell's significant accounting policies are summarized in Note 2 to the Consolidated Financial Statements.

Basis of Presentation - The consolidated financial statements include the accounts of Lyondell and its subsidiaries. Investments in joint ventures where Lyondell exerts a certain level of management control, but lacks full decision making ability over all major issues, are accounted for using the equity method of accounting. For the major unconsolidated joint ventures, including Equistar and LCR, governance of each venture is generally based on equal representation from the partners who jointly control certain key management decisions. These include approval of the strategic plan, capital expenditures and annual budget, issuance of additional debt and the appointment of executive management of the joint venture. Accordingly, these ventures are carried on the equity method, even though Lyondell's ownership percentage may exceed 50%.

Long-Lived Assets - With respect to long-lived assets, key assumptions include the estimates of useful asset lives and the recoverability of carrying values of fixed assets, goodwill and other intangible assets as well as the existence of any obligations associated with the retirement of fixed assets. Such estimates could be significantly modified and/or the carrying values of the assets could be impaired by such factors as new technological developments, new chemical industry entrants with significant raw material or other cost advantages, uncertainties associated with the U.S. and world economies, the cyclical nature of the chemical and refining industries, and uncertainties associated with governmental actions, whether regulatory or, in the case of LCR, with respect to the CSA.

Lyondell defers the costs of turnaround maintenance and repair activities in excess of \$5 million, amortizing such costs over the period until the next expected major turnaround of the affected unit. During 2002, 2001 and 2000, cash expenditures of \$11 million, \$34 million and \$14 million, respectively, were deferred and are being amortized, generally over an average of 5 years. Amortization in 2002, 2001 and 2000, of previously deferred turnaround costs was \$14 million, \$16 million and \$10 million, respectively.

The estimated useful lives of long-lived assets range from 3 to 30 years. Depreciation and amortization of these assets, including amortization of deferred turnaround costs, under the straight-line method over their estimated useful lives totaled \$244 million in 2002. If the useful lives of the assets were found to be shorter than originally estimated, depreciation charges would be accelerated.

Additional information on long-lived assets, deferred turnaround costs and related depreciation and amortization appears in Note 11 to the Consolidated Financial Statements.

Long-Term Employee Benefit Costs – The costs to Lyondell of long-term employee benefits, particularly pension and postretirement medical and life benefits, are incurred over long periods of time, and involve many uncertainties over those periods. The net periodic benefit cost attributable to current periods is based on several assumptions about such future uncertainties, and is sensitive to changes in those assumptions. It is management's responsibility, often with the assistance of independent experts, to select assumptions that in its judgment represent best estimates of those uncertainties. It also is management's responsibility to review those assumptions periodically to reflect changes in economic or other factors that affect those assumptions.

The current benefit service costs, as well as the existing liabilities, for pensions and other postretirement benefits are measured on a discounted present value basis. The discount rate is a current rate, related to the rate at which the liabilities could be settled. Lyondell's assumed discount rate is based on average rates published by Moody's Investor Service, Inc, and Merrill Lynch for high-quality (Aa rating) ten-year fixed income securities. For the purpose of measuring the benefit obligations at December 31, 2002, Lyondell lowered its assumed discount rate from 7.0% to 6.5%, reflecting the general decline in market interest rates during 2002. The 6.5% rate also will be used to measure net periodic benefit cost during 2003. A further one percentage point reduction in the assumed discount rate for Lyondell, Equistar, and LCR would increase Lyondell's benefit obligation by approximately \$125 million, and would reduce Lyondell's net income, including the impact on income from equity investments in Equistar and LCR, by approximately \$15 million.

The benefit obligation and the periodic cost of postretirement medical benefits also are measured based on assumed rates of future increase in the per capita cost of covered health care benefits. As of December 31, 2002, the assumed rate of increase was 10.0% for 2003 through 2004, 7.0% for 2005 through 2007 and 5.0% thereafter. A one percentage point change in the health care cost trend rate assumption would have no significant effect on either the benefit liability or the net periodic cost, due to limits on Lyondell's maximum contribution level under the medical plan.

The net periodic cost of pension benefits included in expense also is affected by the expected long-term rate of return on plan assets assumption. Investment returns that are recognized currently in net income represent the expected return on plan assets rate applied to a market-related value of plan assets which, for Lyondell, is defined as the market value of assets. The expected return on plan assets rate is normally changed less frequently than the assumed discount rate, and reflects long-term expectations, rather than current fluctuations in market conditions. Lyondell's expected long-term asset return on plan assets rate of 9.5% has been based on the average level of earnings that its independent pension investment advisor had advised could be expected to be earned over time. The expectation was based on an asset allocation of 50% U.S. equity securities (11% expected return), 20% non-U.S. equity securities (11.7% expected return), and 30% fixed income securities (6.5% expected return) that had been recommended by the advisor, and was adopted for the plans. The actual rate of return on plan assets may differ from the expected rate due to the volatility normally experienced in capital markets. Management's goal is to manage the investments over the long term to achieve optimal returns with an acceptable level of risk and volatility. Based on the market value of plan assets at December 31, 2002, a one percentage point decrease in this assumption for Lyondell, Equistar and LCR would decrease Lyondell's net income, including the impact on income from equity investments in Equistar and LCR, by approximately \$3 million.

Over the three-year period ended December 31, 2002, Lyondell's actual return on plan assets was a loss averaging 5.7% per year. Net periodic pension cost recognized each year includes the expected asset earnings, rather than the actual earnings or loss. As a result of asset earnings significantly below the expected return on plan assets rate over the three-year period, the level of unrecognized investment losses, together with the net actuarial gains and losses, is \$326 million at December 31, 2002. This unrecognized amount, to the extent it exceeds ten percent of the projected benefit obligation for the respective plan, will be recognized as additional net periodic benefit cost over the average remaining service period of the participants in each plan. This annual amortization charge will be approximately \$23 million per year based on the December 31, 2002 unrecognized amount.

Lyondell is currently in the process of obtaining an updated asset allocation study from the independent pension investment advisor upon which it may update plan asset allocations and expected return on plan asset rates. In view of market returns in the last three years, it is likely that Lyondell will decrease its assumption for expected return on plan assets for 2003.

Additional information on the key assumptions underlying these benefit costs appears in Note 16 to the Consolidated Financial Statements.

Accruals for Taxes Based on Income - With respect to income taxes, uncertainties exist with respect to interpretation of complex tax regulations, both federal and foreign. Management generally expects that Lyondell's interpretations will prevail. Further details on Lyondell's income taxes appear in Note 17 to the Consolidated Financial Statements.

ACCOUNTING CHANGES

Effective January 1, 2002, Lyondell implemented Statement of Financial Accounting Standards ("SFAS") No. 141, *Business Combinations*, SFAS No. 142, *Goodwill and Other Intangible Assets*, and SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. Implementation of SFAS No. 141 and SFAS No. 144 did not have a material effect on the consolidated financial statements of Lyondell.

Upon implementation of SFAS No. 142, Lyondell reviewed its goodwill for impairment and concluded that goodwill was not impaired. However, Equistar reviewed its goodwill for impairment and concluded that the entire balance was impaired, resulting in a \$1.1 billion charge to Equistar's earnings as of January 1, 2002. Lyondell's then 41% share of the Equistar charge was offset by a corresponding reduction in the excess of Lyondell's 41% share of Equistar's partners' capital over the carrying value of Lyondell's investment in Equistar. Consequently, there was no net effect of the impairment on Lyondell's earnings or investment in Equistar. As a result of implementing SFAS No. 142, Lyondell's pretax income in 2002 and subsequent years is favorably affected by \$30 million annually because of the elimination of Lyondell's goodwill amortization.

ANTICIPATED ACCOUNTING CHANGES

Lyondell expects to implement three significant accounting changes in 2003, as discussed below.

To better reflect the full cost of employee compensation, Lyondell has elected to adopt the "fair value" method of accounting for employee stock options, the preferred method as defined by SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No. 148, *Accounting for Stock-Based Compensation - Transition and Disclosure*, issued by the FASB in December 2002, provides three alternative methods of transition for a voluntary change to the fair value method, as well as requiring certain disclosures about the method employed and its effect on reported results. Lyondell will implement SFAS No. 148 in 2003, using the prospective method. Under this method, an estimate of the fair value of any options granted to employees during 2003 or thereafter will be charged to earnings over the related vesting period. This change is expected to reduce 2003 earnings by \$0.01 to \$0.02 per share. See Note 2 to the Consolidated Financial Statements.

In April 2002, the FASB issued SFAS No. 145, *Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections*. The primary impact of the statement on Lyondell, when implemented in 2003, will be the classification of gains or losses that result from the early extinguishment of debt as an element of income before extraordinary items. Reclassification of prior period gains or losses that were originally reported as extraordinary items also will be required. See "Results of Operations" and Notes 2 and 4 to the Consolidated Financial Statements.

In January 2003, the FASB issued FIN No. 46, *Consolidation of Variable Interest Entities*. FIN No. 46 addresses situations in which a company should include in its financial statements the assets, liabilities and activities of another entity. FIN No. 46 applies immediately to entities created after January 31, 2003 and, for Lyondell and Equistar, will apply to older entities beginning in the third quarter 2003. Lyondell expects the application of FIN 46 to result in the consolidation of the entity from which it leases BDO-2. See "Liquidity and Capital Resources - Operating Leases" above.

The consolidation of this entity as of December 31, 2002, using exchange rates as of that date, would result in a net increase in property, plant and equipment of approximately \$181 million, a decrease in other liabilities of \$12

million, a \$197 million increase in debt and a \$3 million after-tax charge, which will be reported as the cumulative effect of an accounting change. Equistar expects the application of FIN 46 to result in the consolidation of an entity from which it leases certain railcars. See "Equistar Liquidity and Capital Resources – Railcar Leases" above. Consolidation of this entity as of December 31, 2002 would result in a net increase in property, plant and equipment of approximately \$116 million, a decrease in prepaid expense of \$13 million, a \$103 million increase in debt and an immaterial charge to be reported as the cumulative effect of an accounting change.

OTHER RECENT ACCOUNTING PRONOUNCEMENTS

In June 2001, the Financial Accounting Standards Board ("FASB") issued SFAS No. 143, *Accounting for Asset Retirement Obligations*, which addresses obligations associated with the retirement of tangible long-lived assets. In July 2002, the FASB issued SFAS No. 146, *Accounting for Exit or Disposal Activities*. SFAS No. 146 addresses the recognition, measurement, and reporting of costs associated with exit and disposal activities, including restructuring activities and facility closings. SFAS No. 146 will be effective for activities initiated after December 31, 2002. Lyondell does not expect adoption of SFAS No. 143 or SFAS No. 146 to have a material impact on its consolidated financial statements

In November 2002, the FASB issued Interpretation No. 45 (FIN No. "45"), *Guarantor's Accounting and Disclosure Requirements*. FIN No. 45 expands required disclosures for certain types of guarantees for the period ended December 31, 2002 and requires recognition of a liability at fair value for guarantees granted after December 31, 2002. Lyondell has provided required disclosures with respect to guarantees in Notes 13, 14 and 24 to the Consolidated Financial Statements.

ENVIRONMENTAL MATTERS

Various environmental laws and regulations impose substantial requirements upon the operations of Lyondell. Lyondell's policy is to be in compliance with such laws and regulations, which include, among others, the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA" or "Superfund") as amended, the Resource Conservation and Recovery Act ("RCRA") and the Clean Air Act Amendments. Lyondell does not specifically track all recurring costs associated with managing hazardous substances and pollution in ongoing operations. Such costs are included in cost of sales. Lyondell, Equistar and LCR also make capital expenditures to comply with environmental regulations. Such capital expenditures totaled approximately \$65 million, \$34 million and \$20 million for 2002, 2001 and 2000, respectively, on a 100% basis for Lyondell, Equistar and LCR. The increases in 2002 and 2001 capital expenditures resulted from new emission reduction rules, discussed in the next paragraph below, and Lyondell currently estimates that these rules will result in further increases in expenditures to approximately \$74 million, on a 100% basis, in 2003, prior to including any expenditures for proposed revisions to emission control standards for highly reactive, volatile organic compounds ("HRVOC"). Lyondell is still completing its assessment of the impact of the proposed HRVOC emission standards.

The eight-county Houston/Galveston region has been designated a severe non-attainment area for ozone by the U.S. Environmental Protection Agency ("EPA"). Emission reduction controls for nitrogen oxides ("NOx") must be installed at LCR's refinery and each of Lyondell's two facilities and Equistar's six facilities in the Houston/Galveston region during the next several years. Recently adopted revisions by the regulatory agencies changed the required NOx reduction levels from 90% to 80%. Under the previous 90% reduction standard, Lyondell estimated that aggregate related capital expenditures could total between \$400 million and \$500 million for Lyondell, Equistar and LCR before the 2007 deadline. Under the revised 80% standard, Lyondell estimates that capital expenditures would decrease to between \$250 million and \$300 million for Lyondell, Equistar and LCR.

The following table summarizes the range of projected capital expenditures for Lyondell and its principal joint ventures to comply with the 80% NOx emission reduction requirements:

<u>Millions of dollars</u>	<u>From</u>	<u>To</u>
NOx capital expenditures – 100% basis:		
Lyondell	\$ 35	\$ 45
Equistar	165	200
LCR	50	55
Total NOx capital expenditures	<u>\$ 250</u>	<u>\$ 300</u>
NOx capital expenditures – Lyondell share:		
Lyondell	\$ 35	\$ 45
Equistar	115	140
LCR	30	35
Total Lyondell share of NOx capital expenditures	<u>\$ 180</u>	<u>\$ 220</u>

However, the savings from this revision could be offset by the costs of stricter proposed controls over HRVOCs. Lyondell, Equistar and LCR are still assessing the impact of the proposed HRVOC revisions and there can be no guarantee as to the ultimate capital cost of implementing any final plan developed to ensure ozone attainment by the 2007 deadline. The timing and amount of these expenditures are also subject to regulatory and other uncertainties, as well as obtaining the necessary permits and approvals.

In the United States, the Clean Air Act Amendments of 1990 set minimum levels for oxygenates, such as MTBE, in gasoline sold in areas not meeting specified air quality standards. However, the presence of MTBE in some water supplies in California and other states due to gasoline leaking from underground storage tanks and in surface water from recreational water craft has led to public concern about the use of MTBE. Certain federal and state governmental initiatives in the U.S. have sought either to rescind the oxygen requirement for reformulated gasoline or to restrict or ban the use of MTBE. Lyondell's North American MTBE sales represented approximately 26% of its total 2002 revenues. The U.S. House of Representatives and the U.S. Senate each passed versions of an omnibus energy bill during 2001 and 2002, respectively. The Senate version of the energy bill would have resulted in a ban on the use of MTBE. The two energy bills were not reconciled during the conference process and an omnibus energy bill was not passed during 2002.

Both the U.S. House of Representatives and the U.S. Senate are expected to pursue an energy bill during the 2003/2004 legislative cycle. If this happens, it is likely that fuel content, including MTBE use, will be a subject of legislative debate. Factors which could be considered in this debate include the impact on gasoline price and supply and the potential for degradation of air quality.

At the state level, a number of states have legislated future MTBE bans. Of these, a number are mid-West states that use ethanol as the oxygenate of choice. Bans in these states should not have an impact on MTBE demand. However, Connecticut, California and New York have bans of MTBE in place effective October 1, 2003, January 1, 2004, and January 1, 2004, respectively. Lyondell estimates that California represents 34% of the U.S. MTBE industry demand and 20% of the worldwide MTBE industry demand, while Connecticut and New York combined represent 12% of the U.S. MTBE industry demand and 7% of the worldwide MTBE industry demand.

At this time, Lyondell cannot predict the impact that these initiatives will have on MTBE margins or volumes during 2003. However, several major oil companies have announced plans, beginning in 2003, to discontinue the use of MTBE in gasoline produced for California markets. Lyondell estimates that the California-market MTBE volumes of these companies account for an estimated 18% of U.S. MTBE industry demand and 10% of worldwide MTBE industry demand. Lyondell intends to continue marketing MTBE in the U.S. However, should it become necessary or desirable to significantly reduce MTBE production, Lyondell would need to make capital expenditures to add the flexibility to produce alternative gasoline blending components, such as iso-octane or ethyl tertiary butyl ether ("ETBE"), at its U.S.-based MTBE plants. The current cost estimates for converting Lyondell's U.S.-based MTBE plant to iso-octane production range from \$65 million to \$75 million. The profit contribution for iso-octane is likely to be lower than that historically realized on MTBE. Alternatively, Lyondell is pursuing ETBE viability

through legislative efforts. One key hurdle is equal access to the federal subsidy provided for ethanol blended into gasoline for the ethanol component of ETBE. Lyondell's U.S.-based MTBE plant is capable of ETBE production with minimal capital requirements. See "Item 7a. Disclosure of Market and Regulatory Risk-Regulatory Risk."

The Clean Air Act also specified certain emissions standards for vehicles, and in 1998, the EPA concluded that additional controls on gasoline and diesel fuel were necessary. New standards for gasoline were finalized in 1999 and will require refiners to produce a low sulfur gasoline by 2004, with final compliance by 2006. A new "on-road" diesel standard was adopted in January 2001 and will require refiners to produce ultra low sulfur diesel by June 2006, with some allowance for a conditional phase-in period that could extend final compliance until 2009. Lyondell estimates that these standards will result in increased capital investment for LCR, totaling between \$175 million to \$225 million for the new gasoline standards and between \$250 million to \$300 million for the new diesel standard, before the implementation dates. Lyondell's share of LCR's capital expenditures would be between \$250 million and \$300 million. In addition, these standards could result in higher operating costs for LCR. Equistar's business may also be impacted if these standards increase the cost for processing fuel components.

As of December 31, 2002, Lyondell's environmental liability for future assessment and remediation costs at its plant sites and a limited number of Superfund sites totaled \$19 million. The liabilities per site range from less than \$1 million to \$4 million and are expected to be incurred over the next two to seven years. Lyondell spent \$7 million to \$8 million annually for each of the last three years for environmental remediation matters. Lyondell estimates that expenditures will be approximately \$4 million in 2003. In the opinion of management, there is currently no material range of loss in excess of the amount recorded for these sites. However, it is possible that new information about the sites for which the accrual has been established, new technology or future developments such as involvement in investigations by regulatory agencies, could require Lyondell to reassess its potential exposure related to environmental matters.

Item 7a. Disclosure of Market and Regulatory Risk

COMMODITY PRICE RISK

A substantial portion of Lyondell's products and raw materials, as well as those of Equistar and LCR, are commodities whose prices fluctuate as market supply and demand fundamentals change. Accordingly, product margins and the level of Lyondell's profitability tend to fluctuate with changes in the business cycle. Lyondell tries to protect against such instability through various business strategies. These include increasing the olefins plants' raw material flexibility, entering into multi-year processing and sales agreements, moving downstream into olefins derivatives products whose pricing is more stable, and the use of the "deemed margin" contract at LCR. Lyondell has made limited use of derivative instruments for commodity price hedging purposes. No significant amount of such derivatives were outstanding at December 31, 2002 and 2001.

Equistar has, from time to time, entered into over-the-counter derivatives, primarily price swap contracts, related to crude oil to help manage its exposure to commodity price risk with respect to crude oil-related raw material purchases. As of December 31, 2002 and 2001, there were no outstanding over-the-counter derivatives.

FOREIGN EXCHANGE RISK

Foreign exchange exposures result from cash flows between Lyondell's U.S. and non-U.S. operations and transactions denominated in currencies other than the local currency of a non-U.S. operating entity. Lyondell's non-U.S. operations account for approximately 35% of consolidated revenues and 45% of consolidated assets. Lyondell has used foreign currency forward contracts to manage its exposure related to euro-denominated capital commitments related to the construction of the PO-11 plant in The Netherlands. These contracts were not designed to protect Lyondell's reported results against exchange rate fluctuations. At December 31, 2002, there were no foreign currency forward contracts outstanding.

INTEREST RATE RISK

Lyondell is exposed to interest rate risk with respect to variable-rate debt. During 2002, Lyondell further reduced variable-rate debt from \$634 million at December 31, 2001 to \$103 million at December 31, 2002, thereby reducing its exposure to interest rate risk to an immaterial level.

At December 31, 2002, Equistar and LCR had variable rate debt of \$296 million and \$485 million, respectively, excluding the note payable by LCR to Lyondell. Lyondell's exposure to interest rate risk at Equistar and LCR is not material. Sensitivity analysis was used for both of the above analyses.

REGULATORY RISK

In the United States, the Clean Air Act Amendments of 1990 set minimum levels for oxygenates, such as MTBE, in gasoline sold in areas not meeting specified air quality standards. However, the presence of MTBE in some water supplies in California and other states due to gasoline leaking from underground storage tanks and in surface water from recreational water craft has led to public concern about the use of MTBE. Certain federal and state governmental initiatives in the U.S. have sought either to rescind the oxygen requirement for reformulated gasoline or to restrict or ban the use of MTBE. See "Environmental Matters" above.

During 2002, Lyondell sold MTBE to BP p.l.c. ("BP") pursuant to a sales contract, which expired December 31, 2002 and represented approximately 14% of Lyondell's 2002 worldwide MTBE sales volumes. The contract provided for formula-based prices that, historically, have been significantly higher than market prices. If sales under the MTBE sales contract with BP had been priced at then prevailing MTBE market prices, Lyondell's 2002 net income would have been reduced by approximately \$15 million. Lyondell anticipates that the MTBE production previously sold under this contract will be sold under market-based annual sales contracts and in the spot market.

New air pollution standards promulgated by federal and state regulatory agencies in the U.S., including those specifically targeting the eight-county Houston/Galveston region, will affect a substantial portion of the operating facilities of Lyondell, Equistar and LCR. Compliance with these standards will result in increased capital investment during the next several years and higher annual operating costs for Lyondell, Equistar and LCR. Recently adopted revisions by the regulatory agencies change the required nitrogen oxides, or NOx, reduction levels from 90% to 80%. However, any potential resulting savings from this proposed revision could be offset by the costs of stricter proposed controls over HRVOCs. Lyondell is still assessing the impact of these proposed regulations and there can be no guarantee as to the ultimate capital cost of implementing any final plan developed to ensure ozone attainment by the 2007 deadline. See "Clean Air Act" section of Note 18 to the Consolidated Financial Statements and "Environmental Matters" above.

Item 8. *Financial Statements and Supplementary Data*

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REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Stockholders
of Lyondell Chemical Company

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, stockholders' equity and cash flows present fairly, in all material respects, the financial position of Lyondell Chemical Company and its subsidiaries at December 31, 2002 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2002 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2002, the Company adopted Statement of Financial Accounting Standards No. 142, "Accounting for Goodwill and Other Intangible Assets".

/s/ PricewaterhouseCoopers LLP

PRICEWATERHOUSECOOPERS LLP

Houston, Texas
March 10, 2003

LYONDELL CHEMICAL COMPANY
CONSOLIDATED STATEMENTS OF INCOME

<u>Millions of dollars, except per share data</u>	For the year ended December 31,		
	2002	2001	2000
Sales and other operating revenues	\$ 3,262	\$ 3,193	\$ 4,003
Operating costs and expenses:			
Cost of sales	2,898	2,862	3,403
Selling, general and administrative expenses	160	157	194
Research and development expense	30	32	35
Amortization of goodwill	--	30	32
	3,088	3,081	3,664
Gain on sale of assets	--	--	(590)
Operating income	174	112	929
Interest expense	(384)	(386)	(514)
Interest income	11	17	52
Other income (expense), net	(6)	(4)	27
Income (loss) before equity investments, income taxes and extraordinary items	(205)	(261)	494
Income (loss) from equity investments:			
Equistar Chemicals, LP	(117)	(77)	101
LYONDELL-CITGO Refining LP	135	129	86
Other	(4)	(12)	12
	14	40	199
Income (loss) before income taxes and extraordinary items	(191)	(221)	693
Provision for (benefit from) income taxes	(58)	(76)	223
Income (loss) before extraordinary items	(133)	(145)	470
Extraordinary losses on extinguishment of debt, net of income taxes	(15)	(5)	(33)
Net income (loss)	\$ (148)	\$ (150)	\$ 437
Basic earnings per share:			
Income (loss) before extraordinary items	\$ (0.99)	\$ (1.24)	\$ 4.00
Extraordinary losses	(.11)	(.04)	(.28)
Net income (loss)	\$ (1.10)	\$ (1.28)	\$ 3.72
Diluted earnings per share:			
Income (loss) before extraordinary items	\$ (0.99)	\$ (1.24)	\$ 3.99
Extraordinary losses	(.11)	(.04)	(.28)
Net income (loss)	\$ (1.10)	\$ (1.28)	\$ 3.71

See Notes to the Consolidated Financial Statements.

LYONDELL CHEMICAL COMPANY
CONSOLIDATED BALANCE SHEETS

<u>Millions, except shares and par value data</u>	<u>December 31,</u>	
	<u>2002</u>	<u>2001</u>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 286	\$ 146
Other short-term investments	44	--
Accounts receivable:		
Trade, net	340	317
Related parties	56	35
Inventories	344	316
Prepaid expenses and other current assets	66	116
Deferred tax assets	35	277
Total current assets	1,171	1,207
Property, plant and equipment, net	2,369	2,293
Investments and long-term receivables:		
Investment in Equistar Chemicals, LP	1,184	522
Investment in PO joint ventures	770	717
Receivable from LYONDELL-CITGO Refining LP	229	229
Investment in LYONDELL-CITGO Refining LP	68	29
Other investments and long-term receivables	98	122
Goodwill, net	1,130	1,102
Other assets, net	429	482
Total assets	\$ 7,448	\$ 6,703
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable:		
Trade	\$ 260	\$ 261
Related parties	84	58
Current maturities of long-term debt	1	7
Accrued liabilities	279	233
Total current liabilities	624	559
Long-term debt	3,926	3,846
Other liabilities	673	583
Deferred income taxes	881	790
Commitments and contingencies		
Minority interest	165	176
Stockholders' equity:		
Common stock, \$1.00 par value, 340,000,000 shares authorized, 128,530,000 and 120,250,000 shares issued, respectively	128	120
Series B common stock, \$1.00 par value, 80,000,000 shares authorized, 34,568,224 shares issued	35	--
Additional paid-in capital	1,380	854
Retained earnings (deficit)	(18)	247
Accumulated other comprehensive loss	(271)	(397)
Treasury stock, at cost, 2,685,080 and 2,687,080 shares, respectively	(75)	(75)
Total stockholders' equity	1,179	749
Total liabilities and stockholders' equity	\$ 7,448	\$ 6,703

See Notes to the Consolidated Financial Statements.

LYONDELL CHEMICAL COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS

<u>Millions of dollars</u>	For the year ended December 31,		
	2002	2001	2000
Cash flows from operating activities:			
Net income (loss)	\$ (148)	\$ (150)	\$ 437
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	244	254	261
Gain on sale of assets	--	--	(590)
Losses from equity investments	121	89	--
Restructuring charges	--	63	--
Deferred income taxes	(24)	3	55
Extraordinary items	15	5	33
Changes in assets and liabilities that provided (used) cash:			
Accounts receivable	(7)	154	(160)
Inventories	(14)	48	3
Accounts payable	13	(74)	67
Prepaid expenses and other current assets	62	(85)	85
Other assets and liabilities, net	27	(108)	(130)
Net cash provided by operating activities	289	199	61
Cash flows from investing activities:			
Purchase of equity investment in Equistar	(440)	--	--
Contributions and advances to affiliates	(114)	(173)	(40)
Purchase of other short-term investments	(44)	--	--
Expenditures for property, plant and equipment	(22)	(68)	(104)
Proceeds from sales of assets, net of cash sold	--	--	2,497
Distributions from affiliates in excess of earnings	--	50	85
Other	(3)	--	--
Net cash provided by (used) in investing activities	(623)	(191)	2,438
Cash flows from financing activities:			
Issuance of Series B common stock, warrants and right	440	--	--
Issuance of long-term debt	591	385	--
Repayment of long-term debt	(543)	(394)	(2,427)
Issuance of common stock	110	--	--
Dividends paid	(109)	(106)	(106)
Other	(18)	(7)	(10)
Net cash provided by (used in) financing activities	471	(122)	(2,543)
Effect of exchange rate changes on cash	3	--	(3)
Increase (decrease) in cash and cash equivalents	140	(114)	(47)
Cash and cash equivalents at beginning of period	146	260	307
Cash and cash equivalents at end of period	\$ 286	\$ 146	\$ 260

See Notes to the Consolidated Financial Statements.

LYONDELL CHEMICAL COMPANY

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Millions, except shares and per share data	Common Stock		Series B Common Stock	Additional Paid-In Capital	Retained Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Comprehensive Income (Loss)
	Issued	Treasury					
Balance, January 1, 2000	\$ 120	\$ (75)	--	\$ 854	\$ 172	\$ (64)	
Net income	--	--	--	--	437	--	\$ 437
Cash dividends (\$.90 per share)	--	--	--	--	(106)	--	
Reissuance of 60,436 treasury shares under restricted stock plan	--	2	--	--	--	--	
Forfeiture of 71,127 shares under restricted stock plan	--	(2)	--	--	1	--	
Foreign currency translation	--	--	--	--	--	(183)	(183)
Minimum pension liability, net of tax of \$5	--	--	--	--	--	(11)	(11)
Comprehensive income							\$ 243
Balance, December 31, 2000	\$ 120	\$ (75)	--	\$ 854	\$ 504	\$ (258)	
Net loss	--	--	--	--	(150)	--	\$ (150)
Cash dividends (\$.90 per share)	--	--	--	--	(106)	--	
Reissuance of 2,587 treasury shares under restricted stock plan	--	--	--	--	(1)	--	
Foreign currency translation	--	--	--	--	--	(53)	(53)
Minimum pension liability, net of tax of \$46	--	--	--	--	--	(84)	(84)
Other	--	--	--	--	--	(2)	(2)
Comprehensive loss							\$ (289)
Balance, December 31, 2001	\$ 120	\$ (75)	\$ --	\$ 854	\$ 247	\$ (397)	
Net loss	--	--	--	--	(148)	--	\$ (148)
Issuance of 34,000,000 shares Series B common stock	--	--	34	405	--	--	
Issuance of 8,280,000 shares of common stock	8	--	--	102	--	--	
Issuance of warrants and right Cash dividends (\$.90 per share)	--	--	--	11	--	--	
Series B stock dividends, 568,224 shares	--	--	1	7	(8)	--	
Reissuance of 2,000 treasury shares under restricted stock plan	--	--	--	--	--	--	
Foreign currency translation	--	--	--	--	--	189	189
Minimum pension liability, net of tax of \$34	--	--	--	--	--	(65)	(65)
Other	--	--	--	1	--	2	2
Comprehensive loss							\$ (22)
Balance, December 31, 2002	\$ 128	\$ (75)	\$ 35	\$1,380	\$ (18)	\$ (271)	

See Notes to the Consolidated Financial Statements.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Description of the Company and Operations

Lyondell Chemical Company ("Lyondell") is a leading worldwide producer and marketer of propylene oxide ("PO"), propylene glycol, propylene glycol ethers, butanediol ("BDO") toluene diisocyanate ("TDI"), styrene monomer ("SM") and methyl tertiary butyl ether ("MTBE"), the principal derivative of tertiary butyl alcohol ("TBA"). These operations are consolidated and reported as the intermediate chemicals and derivatives ("IC&D") segment.

Lyondell's operations in the petrochemicals and polymers segments are conducted through its joint venture ownership interest in Equistar Chemicals, LP ("Equistar") (see Note 7). Lyondell accounts for its investment in Equistar using the equity method of accounting. Equistar's petrochemicals segment produces olefins, including ethylene, propylene and butadiene; aromatics, including benzene and toluene; oxygenated products, including ethylene oxide and derivatives, ethylene glycol, ethanol and MTBE. Equistar's polymers segment produces polyolefins, including high density polyethylene ("HDPE"), low density polyethylene ("LDPE"), linear-low density polyethylene ("LLDPE") and polypropylene; and performance polymers products, including wire and cable insulating resins, and polymeric powders.

Lyondell's refining segment operations are conducted through its joint venture ownership interest in LYONDELL-CITGO Refining LP ("LCR") (see Note 8). Lyondell accounts for its investment in LCR using the equity method of accounting. LCR produces refined petroleum products, including gasoline, low sulfur diesel, jet fuel, aromatics and lubricants.

Through April 30, 2002, Lyondell's methanol operations were conducted through its joint venture ownership interest in Lyondell Methanol Company, L.P. ("LMC"). Effective May 1, 2002, LMC was wholly owned by Lyondell and the methanol results were included in the intermediate chemicals and derivatives segment from that date. The effects of consolidating the LMC operations, which previously had been accounted for using the equity method, were not material.

2. Summary of Significant Accounting Policies

Basis of Presentation—The consolidated financial statements include the accounts of Lyondell and its subsidiaries. Investments in joint ventures where Lyondell exerts a certain level of management control, but lacks full decision making ability over all major issues, are accounted for using the equity method of accounting. Under those circumstances, the equity method is used even though Lyondell's ownership percentage may exceed 50%.

Revenue Recognition—Revenue from product sales is recognized as risk and title to the product transfer to the customer, which usually occurs when shipment is made.

Cash, Cash Equivalents and Other Short-Term Investments—Cash equivalents and other short-term investments consist of highly liquid debt instruments such as certificates of deposit, commercial paper and money market accounts. Cash equivalents include instruments with an original maturity date of three months or less. Other short-term investments have original maturity dates in excess of three months but no more than twelve months and are held to maturity. Cash equivalents and other short-term investments are stated at cost, which approximates fair value. Lyondell's policy is to invest cash in conservative, highly rated instruments and limit the amount of credit exposure to any one institution.

Lyondell has no requirements for compensating balances in a specific amount at a specific point in time. Lyondell does maintain compensating balances for some of its banking services and products. Such balances are maintained on an average basis and are solely at Lyondell's discretion. As a result, none of Lyondell's cash is restricted.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Inventories—Inventories are stated at the lower of cost or market. Cost is determined using the last-in, first-out (“LIFO”) basis for substantially all inventories, except for materials and supplies, which are valued using the average cost method.

Inventory exchange transactions, which involve fungible commodities and do not involve the payment or receipt of cash, are not accounted for as purchases and sales. Any resulting volumetric exchange balances are accounted for as inventory in accordance with the normal LIFO valuation policy.

Property, Plant and Equipment—Property, plant and equipment are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful asset lives, generally 25 years for major manufacturing equipment, 30 years for buildings, 10 to 15 years for light equipment and instrumentation, 15 years for office furniture and 3 to 5 years for information system equipment. Upon retirement or sale, Lyondell removes the cost of the asset and the related accumulated depreciation from the accounts and reflects any resulting gain or loss in the Consolidated Statement of Income. Lyondell’s policy is to capitalize interest cost incurred on debt during the construction of major projects exceeding one year.

Long-Lived Asset Impairment—Lyondell evaluates long-lived assets, including identifiable intangible assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When it is probable that undiscounted future cash flows will not be sufficient to recover an asset’s carrying amount, the asset is written down to its estimated fair value. Long-lived assets to be disposed of are reported at the lower of carrying amount or estimated fair value less costs to sell the assets.

Goodwill—Goodwill represents the excess of purchase price paid over the fair value assigned to the net tangible and identifiable intangible assets of an acquired business. In 2000 and 2001, goodwill was amortized using the straight-line method over 40 years, the estimated useful life. Amortization of goodwill ceased effective January 1, 2002 as described below under *Accounting Changes Adopted in 2002*. Beginning in 2002, goodwill is reviewed for impairment annually.

Turnaround Maintenance and Repair Costs—Costs of maintenance and repairs exceeding \$5 million incurred in connection with turnarounds of major units at Lyondell’s manufacturing facilities are deferred and amortized using the straight-line method over the period until the next planned turnaround, generally four to six years. These costs are maintenance, repair and replacement costs that are necessary to maintain, extend and improve the operating capacity and efficiency rates of the production units.

Deferred Software Costs—Costs to purchase and to develop software for internal use are deferred and amortized on a straight-line basis over periods of 3 to 7 years.

Other Deferred Charges—Other deferred charges are carried at amortized cost and primarily consist of deferred debt issuance costs, patents and licensed technology, capacity reservation fees and other long-term processing rights and costs. These assets are amortized using the straight-line method over their estimated useful lives or the term of the related agreement, if shorter.

Environmental Remediation Costs—Anticipated expenditures related to investigation and remediation of contaminated sites, which include operating facilities and waste disposal sites, are accrued when it is probable a liability has been incurred and the amount of the liability can reasonably be estimated. Estimated expenditures have not been discounted to present value.

Minority Interest—Minority interest primarily represents the interest of unaffiliated investors in a partnership that owns Lyondell’s PO/SM II plant at the Channelview, Texas complex. The minority interest share of the partnership’s income or loss is reported in “Other income (expense), net” in the Consolidated Statement of Income.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Income Taxes—Deferred income taxes result from temporary differences in the recognition of revenues and expenses for tax and financial reporting purposes. Valuation allowances are provided against deferred tax assets when it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Foreign Currency Translation—The functional currency of Lyondell's principal non-U.S. operations is the local currency, except the Brazilian operation for which it is the U.S. dollar.

Use of Estimates—The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Accounting Changes—Effective January 1, 2002, Lyondell implemented Statement of Financial Accounting Standards ("SFAS") No. 141, *Business Combinations*, SFAS No. 142, *Goodwill and Other Intangible Assets*, and SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. Implementation of SFAS No. 141 and SFAS No. 144 did not have a material effect on the consolidated financial statements of Lyondell.

Upon implementation of SFAS No. 142, Lyondell reviewed its goodwill for impairment and concluded that goodwill was not impaired. However, Equistar reviewed its goodwill for impairment and concluded that the entire balance was impaired, resulting in a \$1.1 billion charge to Equistar's earnings as of January 1, 2002 (see Note 7). The conclusion was based on a comparison to Equistar's indicated fair value, using multiples of EBITDA (earnings before interest, taxes, depreciation and amortization) for comparable companies as an indicator of fair value. Lyondell's 41% share of the Equistar charge was offset by a corresponding reduction in the excess of Lyondell's 41% share of Equistar's partners' capital over the carrying value of Lyondell's investment in Equistar. Consequently, there was no net effect of the impairment on Lyondell's earnings or investment in Equistar.

As a result of implementing SFAS No. 142, Lyondell's pretax income in 2002 and subsequent years is favorably affected by \$30 million annually because of the elimination of Lyondell's goodwill amortization. The following table presents Lyondell's results of operations for all periods presented as adjusted to eliminate goodwill amortization.

	For the year ended December 31,		
	2002	2001	2000
Millions of dollars, except per share data			
Reported income (loss) before extraordinary items	\$ (133)	\$ (145)	\$ 470
Add back: goodwill amortization, net of tax	--	22	23
Adjusted income (loss) before extraordinary items	<u>\$ (133)</u>	<u>\$ (123)</u>	<u>\$ 493</u>
Reported net income (loss)	\$ (148)	\$ (150)	\$ 437
Add back: goodwill amortization, net of tax	--	22	23
Adjusted net income (loss)	<u>\$ (148)</u>	<u>\$ (128)</u>	<u>\$ 460</u>
Diluted earnings per share: ^(a)			
Reported income (loss) before extraordinary items	\$ (.99)	\$ (1.24)	\$ 3.99
Add back: goodwill amortization, net of tax	--	.19	.20
Adjusted income (loss) before extraordinary items	<u>\$ (.99)</u>	<u>\$ (1.05)</u>	<u>\$ 4.19</u>
Reported net income (loss)	\$ (1.10)	\$ (1.28)	\$ 3.71
Add back: goodwill amortization, net of tax	--	.19	.20
Adjusted net income (loss)	<u>\$ (1.10)</u>	<u>\$ (1.09)</u>	<u>\$ 3.91</u>

(a) Basic and diluted earnings (loss) per share are the same in all years except that basic earnings per share in 2000 are higher by \$0.01.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Anticipated Accounting Changes—Lyondell expects to implement three significant accounting changes in 2003, as discussed below.

To better reflect the full cost of employee compensation, Lyondell has elected to adopt the “fair value” method of accounting for employee stock options, the preferred method as defined by SFAS No. 123, *Accounting for Stock-Based Compensation*. SFAS No. 148, *Accounting for Stock-Based Compensation – Transition and Disclosure*, issued by the FASB in December 2002, provides three alternative methods of transition for a voluntary change to the fair value method, as well as requiring certain disclosures about the method employed and its effect on reported results. Lyondell will implement SFAS No. 148 in 2003, using the prospective method. Under this method, an estimate of the fair value of any options granted to employees during 2003 or thereafter will be charged to earnings over the related vesting period. This change is expected to reduce 2003 earnings by \$0.01 to \$0.02 per share.

Lyondell currently accounts for employee stock options under the intrinsic value based method prescribed by Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*. Accordingly, no compensation cost has been recognized in connection with stock option grants under the plans. The pro forma effect on net income and earnings per share from calculating compensation expense in the manner described in SFAS No. 123, *Accounting for Stock-Based Compensation*, in 2002, 2001 and 2000 and the assumptions used to estimate the fair value per share of options granted as of the date of grant using the Black-Scholes option-pricing model are summarized in the table below.

<u>Millions of dollars, except per share data</u>	For the year ended December 31,		
	2002	2001	2000
Reported net income (loss)	\$ (148)	\$ (150)	\$ 437
Deduct pro forma effect of stock-based compensation using fair value based method, net of tax	(8)	(7)	(4)
Pro forma net income (loss)	<u>\$ (156)</u>	<u>\$ (157)</u>	<u>\$ 434</u>
Diluted earnings per share: ^(a)			
Reported	\$ (1.10)	\$ (1.28)	\$ 3.71
Pro forma	\$ (1.16)	\$ (1.34)	\$ 3.68
Assumptions:			
Fair value per share of options granted	\$ 4.21	\$ 4.08	\$ 4.04
Fair value assumptions:			
Dividend yield	6.06%	5.88%	5%
Expected volatility	47%	42%	46%
Risk-free interest rate	5.54%	5.28%	6.5%
Maturity, in years	10	10	10

(b) Basic and diluted earnings (loss) per share are the same in all years except that basic earnings per share in 2000 are higher by \$0.01.

The pro forma effect on earnings and earnings per share in 2000 is lower due to the effect of a three-year vesting period for stock options and the initiation of annual stock option awards beginning in 1999.

In April 2002, the FASB issued SFAS No. 145, *Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections*. The primary impact of the statement on Lyondell, when implemented in 2003, will be the classification of gains or losses that result from the early extinguishment of debt as an element of income before extraordinary items. Reclassification of prior period gains or losses that were originally reported as extraordinary items also will be required. See Note 4.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

In January 2003, the FASB issued Interpretation No. 46 ("FIN No. 46"), *Consolidation of Variable Interest Entities*. FIN No. 46 addresses situations in which a company should include in its financial statements the assets, liabilities and activities of another entity. FIN No. 46 applies immediately to entities created after January 31, 2003 and, for Lyondell and Equistar, will apply to older entities beginning in the third quarter 2003. Lyondell expects the application of FIN No. 46 to result in the consolidation of the entity from which it leases BDO-2. See Note 14.

The consolidation of this entity as of December 31, 2002, using exchange rates as of that date, would result in a net increase in property, plant and equipment of approximately \$181 million, a decrease in other liabilities of \$12 million, a \$197 million increase in debt and a \$3 million after-tax charge, which will be reported as the cumulative effect of an accounting change. Equistar expects the application of FIN 46 to result in the consolidation of an entity from which it leases certain railcars. Consolidation of this entity as of December 31, 2002 would result in a net increase in property, plant and equipment of approximately \$116 million, a decrease in prepaid expense of \$13 million, a \$103 million increase in debt and an immaterial charge to be reported as the cumulative effect of an accounting change.

Other Recent Accounting Pronouncements— In June 2001, the Financial Accounting Standards Board ("FASB") issued SFAS No. 143, *Accounting for Asset Retirement Obligations*, which addresses obligations associated with the retirement of tangible long-lived assets. In July 2002, the FASB issued SFAS No. 146, *Accounting for Exit or Disposal Activities*. SFAS No. 146 addresses the recognition, measurement, and reporting of costs associated with exit and disposal activities, including restructuring activities and facility closings. SFAS No. 146 will be effective for activities initiated after December 31, 2002. Lyondell does not expect adoption of SFAS No. 143 or SFAS No. 146 to have a material impact on its consolidated financial statements.

In November 2002, the FASB issued Interpretation No. 45 ("FIN No. 45"), *Guarantor's Accounting and Disclosure Requirements*. FIN No. 45 expands required disclosures for certain types of guarantees for the period ended December 31, 2002 and requires recognition of a liability at fair value for guarantees granted after December 31, 2002. Lyondell has provided required disclosures with respect to guarantees in Notes 13, 14 and 24.

Reclassifications—Certain previously reported amounts have been reclassified to conform to classifications adopted in 2002.

3. Restructuring Charges

During 2001, Lyondell recorded a pretax charge of \$63 million, which is included in cost of sales in the Consolidated Statements of Income, associated with its decision to exit the aliphatic diisocyanates ("ADI") business. The decision reflected the limited ongoing strategic value to Lyondell of the ADI business and Lyondell's poor competitive position in the ADI business. The decision involved the shutdown of the ADI manufacturing unit at the Lake Charles, Louisiana facility. The action included a 20% reduction of the Lake Charles workforce, as well as ADI-related research and sales positions at other locations. The \$63 million charge included \$45 million to adjust the carrying values of the ADI assets to their estimated net realizable value, \$15 million of accrued liabilities for exit costs and \$3 million for severance and other employee-related costs for nearly 100 employee positions that were eliminated. Payments of \$9 million for exit costs and \$3 million for severance and other employee-related costs were made through December 31, 2002. In addition, cash proceeds from asset sales exceeded asset carrying values by \$2 million in 2002 and were credited to the accrual, resulting in a remaining accrued liability of \$8 million at December 31, 2002, which will be paid out in 2003.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

4. Extraordinary Items

During 2002, Lyondell prepaid a portion of Term Loan E in the principal amount of \$515 million and amended its credit facility. As a result, Lyondell recognized the \$12 million prepayment premium and the writeoff of unamortized debt issuance costs of \$10 million, or a total, after tax, of \$15 million, as an extraordinary loss on extinguishment of debt.

During 2001, Lyondell wrote off unamortized debt issuance costs and amendment fees of \$7 million related to the early repayment of \$384 million of variable-rate debt outstanding under Lyondell's credit facility. The charge, less a tax benefit of \$2 million, was reported as an extraordinary loss on extinguishment of debt.

During 2000, Lyondell retired debt in the principal amount of \$2.2 billion prior to maturity. Lyondell wrote off \$40 million of unamortized debt issuance costs and amendment fees and paid call premiums of \$10 million. The total charges of \$50 million, less a tax benefit of \$17 million, were reported as an extraordinary loss on extinguishment of debt. Prior to the above write offs, the debt issuance costs and amendment fees had been deferred and amortized to interest expense.

In 2003, these amounts will be reclassified and reported as an element of income before extraordinary items. See also Notes 2 and 13.

5. Gain on Sale of Assets

Substantially all of Lyondell's consolidated operations were acquired with the July 28, 1998 acquisition of ARCO Chemical Company. On March 31, 2000, Lyondell completed the sale of the polyols business and ownership interests in its U.S. PO manufacturing operations to Bayer AG and Bayer Corporation (collectively "Bayer") for approximately \$2.45 billion. Lyondell recorded a pretax gain on the sale of \$590 million. Lyondell used net proceeds of the asset sale to retire a significant portion of its outstanding debt (see Note 13). The polyols business had sales of approximately \$220 million for the three months ended March 31, 2000. The accompanying Consolidated Statements of Income included the operating results of the polyols business through March 31, 2000.

As part of the asset sale, Lyondell accrued liabilities of \$53 million for employee severance and other employee benefits, covering approximately 850 employees. The affected employees were generally terminated on or about April 1, 2000, with a limited number providing transition services through mid-2001. During the third quarter 2000, Lyondell reduced the accrued liability by \$25 million due to a reduction in the number of affected employees and significantly lower than expected payments of severance and other benefits. Payments of \$28 million for severance, relocation and other employee benefits were made through December 31, 2002, satisfying the remainder of the liability.

6. Investment in PO Joint Ventures

As part of the sale of the polyols business and ownership interests in its U.S. PO manufacturing operations to Bayer (see Note 5), Lyondell entered into a U.S. PO manufacturing joint venture with Bayer (the "PO Joint Venture") and a separate joint venture with Bayer for certain related PO technology (the "PO Technology Joint Venture"). Lyondell contributed approximately \$1.2 billion of assets at historical book value to the joint ventures, and allocated \$522 million of that book value to the partnership interest sold to Bayer. Lyondell's continuing interest is reported as "Investment in PO joint ventures" in the accompanying Consolidated Balance Sheets.

Bayer's ownership interest represents ownership of an in-kind portion of the PO production of the PO Joint Venture. Bayer's share of PO production is approximately 1.5 billion pounds annually. Lyondell takes in kind the remaining PO production and all co-product (SM and TBA) production from the PO Joint Venture.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Lyondell operates the PO Joint Venture plants and arranges and coordinates the logistics of PO delivery. The partners share in the cost of production and logistics based on their product offtake. Lyondell reports the cost of its product offtake as inventory and cost of sales in its Consolidated Financial Statements. Related cash flows are reported in the operating cash flow section of the Consolidated Statement of Cash Flows. Lyondell's investment in the PO Joint Venture and the PO Technology Joint Venture is reduced through recognition of its share of the depreciation and amortization of the assets of the joint ventures, which is included in cost of sales. Other changes in the investment balance are principally due to additional capital investments by Lyondell in the PO joint ventures.

In December 2000, Lyondell and Bayer formed a separate joint venture ("PO-11 Joint Venture") for the construction of a world-scale PO/SM plant, known as PO-11, located in The Netherlands. At that time, Lyondell sold a 50% interest in the construction project to Bayer for approximately \$52 million, based on project expenditures to date. Lyondell and Bayer each contributed their 50% interest in PO-11 into the PO-11 Joint Venture and, thereafter, each bears 50% of the continuing costs to complete the project. The plant is expected to begin operations in the second half of 2003. Lyondell and Bayer do not share marketing or product sales under either the PO Joint Venture or PO-11 Joint Venture. Lyondell's contributions to the PO-11 Joint Venture are reported as "Investment in PO joint ventures" in the accompanying Consolidated Balance Sheets and as "Contributions and advances to affiliates" in the Consolidated Statements of Cash Flows. Total assets of the PO joint ventures, primarily property, plant and equipment, were \$1,576 million and \$1,458 at December 31, 2002 and 2001, respectively. During 2002 and 2001, Lyondell capitalized \$10 million and \$3 million, respectively, of interest related to the PO-11 construction project and included the capitalized amounts in its investment in the PO-11 Joint Venture.

7. Investment in Equistar Chemicals, LP

Equistar was formed on December 1, 1997 as a joint venture between Lyondell and Millennium Chemicals Inc. ("Millennium"), to own and operate the businesses contributed by the partners. Lyondell contributed substantially all of the assets comprising its petrochemicals and polymers business segments, while Millennium contributed substantially all of the assets comprising its polyethylene and related products, performance polymers and ethanol businesses. On May 15, 1998, the ethylene, propylene and ethylene oxide and derivatives businesses of Occidental Petroleum Corporation ("Occidental") were contributed to Equistar ("Occidental Contributed Business").

Prior to August 22, 2002, Lyondell had a 41% interest in Equistar, while Millennium and Occidental each had a 29.5% interest. On August 22, 2002, Lyondell acquired Occidental's 29.5% interest in Equistar. See also Note 19. Following the acquisition, Lyondell has a 70.5% interest in Equistar. Because the partners jointly control certain key management decisions, including approval of the strategic plan, capital expenditures and annual budget, issuance of additional debt and the appointment of executive management of the partnership, Lyondell accounts for its investment in Equistar using the equity method of accounting. As a partnership, Equistar is not subject to federal income taxes.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Summarized financial information for Equistar follows:

<u>Millions of dollars</u>	December 31,	
	2002	2001
BALANCE SHEETS		
Total current assets	\$ 1,126	\$ 1,256
Property, plant and equipment, net	3,565	3,705
Goodwill, net	--	1,053
Other assets	361	324
Total assets	<u>\$ 5,052</u>	<u>\$ 6,338</u>
Current maturities of long-term debt	\$ 32	\$ 104
Other current liabilities	682	587
Long-term debt	2,196	2,233
Other liabilities	221	177
Partners' capital	1,921	3,237
Total liabilities and partners' capital	<u>\$ 5,052</u>	<u>\$ 6,338</u>

	For the year ended December 31,		
	2002	2001	2000
STATEMENTS OF INCOME			
Sales and other operating revenues	\$ 5,537	\$ 5,909	\$ 7,495
Cost of sales	5,388	5,755	6,908
Selling, general and administrative expenses	155	181	182
Research and development expense	38	39	38
Amortization of goodwill	--	33	33
Operating income (loss)	(44)	(99)	334
Interest expense, net	204	189	181
Other income, net	2	8	--
Income (loss) before extraordinary item and cumulative effect of accounting change	(246)	(280)	153
Extraordinary loss on extinguishment of debt	--	(3)	--
Cumulative effect of accounting change	(1,053)	--	--
Net income (loss)	<u>\$ (1,299)</u>	<u>\$ (283)</u>	<u>\$ 153</u>

OTHER INFORMATION

Depreciation and amortization	\$ 298	\$ 319	\$ 308
Expenditures for property, plant and equipment	118	110	131

As discussed in Note 2, as part of the implementation of SFAS No. 142 as of January 1, 2002, the entire unamortized balance of Equistar's goodwill was determined to be impaired. Accordingly, Equistar's earnings in 2002 were reduced by \$1.1 billion. Lyondell's 41% share of the charge for impairment of Equistar's goodwill was offset by a corresponding reduction in the difference between Lyondell's investment in Equistar and its underlying equity in Equistar's net assets.

Lyondell's income (loss) from its investment in Equistar consists of Lyondell's share of Equistar's income (loss) before the cumulative effect of the accounting change and the accretion of the difference between Lyondell's investment and its underlying equity in Equistar's net assets. At December 31, 2002, Lyondell's underlying equity in Equistar's net assets exceeded its investment in Equistar by approximately \$170 million. This difference is being accreted over 15 years.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Lyondell purchases ethylene, propylene and benzene at market-related prices from Equistar under various agreements expiring in 2013 and 2014. With the exception of one pre-existing third-party supply agreement for a product, expiring in 2015, Lyondell is required to purchase 100% of its ethylene, propylene and benzene requirements for its Channelview and Bayport, Texas facilities from Equistar. In addition, a wholly owned subsidiary of Lyondell licenses MTBE technology to Equistar. Lyondell also purchases a significant portion of the MTBE produced by Equistar at one of its two Channelview units at market-related prices. Equistar's sales to Lyondell were \$459 million, \$405 million and \$572 million for the years ended December 31, 2002, 2001 and 2000, respectively. In addition, Equistar purchased \$1 million, \$4 million and \$2 million of products from Lyondell for the years ended December 31, 2002, 2001 and 2000, respectively.

Equistar acts as sales agent for the methanol products of Lyondell Methanol Company, L.P. ("LMC"), which was wholly owned by Lyondell effective May 1, 2002. Equistar also provides operating and other services for LMC under the terms of existing agreements that were assumed by Equistar from Lyondell, including the lease to LMC by Equistar of the real property on which LMC's methanol plant is located. Pursuant to the terms of those agreements, LMC pays Equistar a management fee. Equistar billed LMC \$6 million annually in 2002, 2001 and 2000 for the aforementioned services and lease. The natural gas for LMC's plant is purchased by Equistar as agent for LMC under Equistar master agreements with various third party suppliers. Equistar billed LMC \$76 million, \$86 million and \$85 million in 2002, 2001 and 2000, respectively, for such natural gas purchases.

Sales by Equistar to LCR, primarily of certain olefins by-products and processing services, were \$344 million, \$380 million and \$440 million for the years ended December 31, 2002, 2001 and 2000, respectively. Purchases by Equistar from LCR, primarily of refinery products, during the years ended December 31, 2002, 2001 and 2000 totaled \$219 million, \$205 million and \$264 million, respectively.

Under a shared service agreement, Lyondell provides office space and various services to Equistar, including information technology, human resources, sales and marketing, raw material supply, supply chain, health, safety and environmental, engineering, research and development, facility services, legal, accounting, treasury, internal audit and tax. Lyondell charges Equistar for its share of the cost of such services. Direct costs, incurred exclusively for Equistar, are also charged to Equistar. Billings by Lyondell to Equistar were approximately \$134 million, \$135 million and \$111 million for the years ended December 31, 2002, 2001 and 2000, respectively. Costs related to a limited number of shared services, primarily engineering, continue to be incurred by Equistar. In such cases, Equistar charges Lyondell for its share of such costs. Billings by Equistar to Lyondell were approximately \$7 million, \$9 million and \$17 million for the years ended December 31, 2002, 2001 and 2000, respectively.

8. Investment in LYONDELL-CITGO Refining LP

In July 1993, LCR was formed to own and operate Lyondell's refining business. LCR is owned by subsidiaries of Lyondell and CITGO. Lyondell owns 58.75% of the partnership. Lyondell's income from its investment in LCR presented in the Consolidated Statements of Income consists of Lyondell's share of LCR's net income and the accretion of the difference between Lyondell's investment and its underlying equity in LCR's net assets. The difference between Lyondell's investment in LCR and its underlying equity in LCR's net assets was approximately \$275 million at December 31, 2002. This difference is being accreted over 25 years.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Summarized financial information for LCR is as follows:

<u>Millions of dollars</u>	December 31,	
	2002	2001
BALANCE SHEETS		
Total current assets	\$ 357	\$ 230
Property, plant and equipment, net	1,312	1,343
Other assets	88	97
Total assets	\$ 1,757	\$ 1,670
Notes payable	\$ --	\$ 50
Other current liabilities	514	335
Long-term debt	450	450
Loans payable to partners	264	264
Other liabilities	126	79
Partners' capital	403	492
Total liabilities and partners' capital	\$ 1,757	\$ 1,670

	For the year ended December 31,		
	2002	2001	2000
STATEMENTS OF INCOME			
Sales and other operating revenues	\$ 3,392	\$ 3,284	\$ 4,075
Cost of sales	3,093	2,967	3,826
Selling, general and administrative expenses	53	61	60
Operating income	246	256	189
Interest expense, net	32	51	61
Income before extraordinary item	214	205	128
Extraordinary loss on extinguishment of debt	(1)	(2)	--
Net income	\$ 213	\$ 203	\$ 128

OTHER INFORMATION

Depreciation and amortization	\$ 116	\$ 108	\$ 112
Expenditures for property, plant and equipment	65	109	60

In December 2002, LCR completed the refinancing of its credit facilities, with a new \$450 million term bank loan facility and a \$70 million working capital revolving credit facility with 18-month terms. The facilities, secured by substantially all of the assets of LCR, will mature in June 2004. They replace LCR's \$450 million term loan and \$70 million revolving credit facility, which were scheduled to mature in January 2003. Loans payable to partners include \$229 million payable to Lyondell and \$35 million payable to CITGO. These loans have been extended and will mature in December 2004.

Sales from LCR to Equistar, primarily of refinery products, were \$219 million, \$205 million and \$264 million for the years ended December 31, 2002, 2001 and 2000, respectively. Purchases by LCR from Equistar, primarily of certain olefins by-products and processing services, during the years ended December 31, 2002, 2001 and 2000 totaled \$344 million, \$380 million and \$440 million, respectively.

Lyondell has various service and cost sharing arrangements with LCR. Billings by Lyondell to LCR were approximately \$3 million, \$3 million and \$4 million per year for the years ended December 31, 2002, 2001 and 2000, respectively. Billings from LCR to Lyondell were approximately \$2 million, \$3 million and \$2 million for the years ended December 31, 2002, 2001 and 2000, respectively.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

LCR has a long-term crude supply agreement (“Crude Supply Agreement” or “CSA”) with Lagoven, S.A., now known as PDVSA Petróleo, S.A. (“PDVSA Oil”), an affiliate of CITGO (see “Crude Supply Agreement” section of Note 18). The Crude Supply Agreement, which expires on December 31, 2017, incorporates formula prices to be paid by LCR for the crude oil supplied based on the market value of a slate of refined products deemed to be produced from each particular crude oil or feedstock, less: (1) certain deemed refining costs, adjustable for inflation and energy costs; (2) certain actual costs; and (3) a deemed margin, which varies according to the grade of crude oil or other feedstock delivered. The actual refining margin earned by LCR may vary from the formula amount depending on, among other things, timing differences in incorporating changes in refined product market values and energy costs into the Crude Supply Agreement’s deemed margin calculations and the efficiency with which LCR conducts its operations from time to time. Although LCR believes that the Crude Supply Agreement reduces the volatility of LCR’s earnings and cash flows over the long-term, the Crude Supply Agreement also limits LCR’s ability to enjoy higher margins during periods when the market price of crude oil is low relative to then-current market prices for refined products. In addition, if the actual yields, costs or volumes of the LCR refinery differ substantially from those contemplated by the Crude Supply Agreement, the benefits of this agreement to LCR could be substantially diminished, and could result in lower earnings and cash flow for LCR. Furthermore, there may be periods during which LCR’s costs for crude oil under the Crude Supply Agreement may be higher than might otherwise be available to LCR from other sources. A disparate increase in the price of heavy crude oil relative to the prices for its products has the tendency to make continued performance of its obligations under the Crude Supply Agreement less attractive to PDVSA Oil.

In addition, under the terms of a long-term product sales agreement (“Products Agreement”), CITGO purchases substantially all of the refined products produced by LCR. Both PDVSA Oil and CITGO are direct or indirect, wholly owned subsidiaries of Petróleos de Venezuela, S.A., the national oil company of the Republic of Venezuela.

9. Accounts Receivable

Lyondell sells its products primarily to other industrial concerns in the petrochemicals and refining industries. Lyondell performs ongoing credit evaluations of its customers’ financial condition, and, in certain circumstances, requires letters of credit from them. Lyondell’s allowance for doubtful accounts receivable, which is reflected in the Consolidated Balance Sheets as a reduction of accounts receivable, totaled \$6 million and \$12 million at December 31, 2002 and 2001, respectively.

In December 2001, Lyondell amended its existing receivables purchase agreement with an independent issuer of receivables-backed commercial paper, extending the term until December 2004. Under the terms of the agreement, Lyondell agreed to sell, on an ongoing basis and without recourse, designated accounts receivable. Lyondell is obligated to sell new receivables as existing receivables are collected. The agreement currently permits the sale of up to \$85 million of domestic accounts receivable. The amount of receivables permitted to be sold is determined by a formula. As of December 31, 2002 and 2001, the balance of Lyondell’s accounts receivable sold under this arrangement was \$65 million. Increases and decreases in the amount sold are reflected in operating cash flows in the Consolidated Statements of Cash Flows. Fees related to the sales are included in “Other income (expense), net” in the Consolidated Statements of Income.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

10. Inventories

Inventories consisted of the following components at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Finished goods	\$ 271	\$ 262
Work-in-process	7	5
Raw materials	29	19
Materials and supplies	37	30
Total inventories	<u>\$ 344</u>	<u>\$ 316</u>

The current cost of inventories approximated the book value for inventories carried under the LIFO method of inventory accounting.

11. Property, Plant and Equipment, Goodwill and Other Assets

The components of property, plant and equipment, at cost, and the related accumulated depreciation were as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Land	\$ 11	\$ 10
Manufacturing facilities and equipment	2,959	2,529
Construction in progress	30	113
Total property, plant and equipment	3,000	2,652
Less accumulated depreciation	(631)	(359)
Property, plant and equipment, net	<u>\$ 2,369</u>	<u>\$ 2,293</u>

No interest was capitalized to property, plant and equipment during 2002, 2001 and 2000. See Note 6 for other interest capitalized.

Goodwill, at cost, and the related accumulated amortization were as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Goodwill	\$ 1,240	\$ 1,212
Less accumulated amortization	(110)	(110)
Goodwill, net	<u>\$ 1,130</u>	<u>\$ 1,102</u>

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The components of other assets at cost, and the related accumulated amortization were as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>			<u>2001</u>		
	Cost	Accumulated Amortization	Net	Cost	Accumulated Amortization	Net
Intangible assets:						
MTBE contract	\$ --	\$ --	\$ --	\$ 150	\$ (114)	\$ 36
Debt issuance costs	135	(59)	76	114	(42)	72
Technology costs	132	(63)	69	132	(51)	81
Software costs	62	(19)	43	57	(9)	48
Turnaround costs	60	(26)	34	46	(12)	34
Other	87	(62)	25	91	(53)	38
Total intangible assets	<u>\$ 476</u>	<u>\$ (229)</u>	247	<u>\$ 590</u>	<u>\$ (281)</u>	309
Company-owned life insurance			147			147
Other			35			26
Total other assets			<u>\$ 429</u>			<u>\$ 482</u>

Scheduled amortization of these intangible assets for the next five years is estimated at \$38 million in 2003, \$37 million in 2004, \$37 million in 2005, \$37 million in 2006 and \$37 million in 2007.

Depreciation and amortization expense is summarized as follows:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Property, plant and equipment	\$ 137	\$ 124	\$ 136
MTBE contract	36	33	33
Investment in PO Joint Venture	32	31	24
Goodwill	--	30	32
Turnaround costs	14	16	10
Software costs	10	6	3
Other	15	14	23
Total depreciation and amortization	<u>\$ 244</u>	<u>\$ 254</u>	<u>\$ 261</u>

In addition, amortization of debt issuance costs of \$16 million, \$15 million and \$18 million in 2002, 2001, and 2000, respectively, is included in interest expense in the Consolidated Statements of Income.

12. Accrued Liabilities

Accrued liabilities consisted of the following components at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Interest	\$ 70	\$ 58
Payroll and benefits	63	46
Contractual obligations	55	52
Taxes other than income	51	46
Income taxes	25	21
Other	15	10
Total accrued liabilities	<u>\$ 279</u>	<u>\$ 233</u>

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

13. Long-Term Debt

In December 2002, Lyondell issued \$337 million principal amount of 9.5% senior secured notes due 2008, using net proceeds, after discount and fees, of \$321 million to prepay \$315 million of the principal amount outstanding under Term Loan E of the credit facility and to pay a \$6 million prepayment premium.

In July 2002, Lyondell completed debt and equity offerings, as well as amendments to its credit facility, to the transaction documents related to the BDO-2 facility (see Note 14) and to the indentures related to its senior notes. Lyondell issued \$278 million principal amount of 11.125% senior secured notes due 2012, using proceeds of \$204 million to prepay \$200 million of the principal amount outstanding under Term Loan E of the credit facility and to pay a \$4 million prepayment premium. The remaining net proceeds, after discount and fees, of approximately \$65 million were used for working capital and general corporate purposes. As discussed in Note 19, Lyondell also issued equity securities for net proceeds of \$110 million that also were used for working capital and general corporate purposes.

The amended credit facility extended the maturity of the revolving credit facility from July 2003 to June 2005, reduced the size of the revolving credit facility from \$500 million to \$350 million, made certain financial ratio requirements less restrictive, made the covenant limiting acquisitions more restrictive and added a covenant limiting certain non-regulatory capital expenditures. The BDO-2 transaction documents were also amended to incorporate the revised covenants from the credit facility. Also, after receiving consents from the holders of the senior secured and senior subordinated notes, Lyondell amended the indentures related to those notes. The principal indenture amendment revised a limitation that had restricted payment of Lyondell's current \$0.90 per share annual cash dividend to a specified number of shares. As a result of the amendment, the number of shares with respect to which an annual cash dividend of up to \$0.90 per share may be paid is no longer restricted by the covenants. Lyondell paid fees totaling \$17 million related to the amendments. Lyondell had previously obtained amendments to the credit facility and the financial ratio requirements in September 2001 and March 2001.

The \$350 million revolving credit facility, which matures in June 2005, was undrawn at December 31, 2002. Amounts available under the credit facility are reduced to the extent of certain outstanding letters of credit. Lyondell had outstanding letters of credit totaling \$57 million at December 31, 2002, of which \$49 million reduced the available credit facility.

In December 2001, Lyondell issued \$393 million of 9.5% senior secured notes due December 15, 2008. The proceeds were used to prepay \$384 million of variable-rate debt outstanding under Lyondell's credit facility.

Lyondell used the net proceeds of the March 31, 2000 asset sale (see Note 5) to reduce its variable-rate debt by \$2.06 billion during 2000. During the fourth quarter 2000, Lyondell also repaid \$200 million of debentures, which matured in November 2000 and reduced variable rate debt by an additional \$150 million.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Long-term debt consisted of the following at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Bank credit facility		
Revolving credit facility	\$ --	\$ --
Term Loan E due 2006, LIBOR plus 4.375%	103	634
Other debt obligations:		
Senior Secured Notes, Series A due 2007, 9.625%	900	900
Senior Secured Notes, Series B due 2007, 9.875%	1,000	1,000
Senior Secured Notes due 2008, 9.5%	393	393
Senior Secured Notes due 2008, 9.5%	330	--
Senior Secured Notes due 2012, 11.125%	276	--
Senior Subordinated Notes due 2009, 10.875%	500	500
Debentures due 2005, 9.375%	100	100
Debentures due 2010, 10.25%	100	100
Debentures due 2020, 9.8%	224	224
Other	1	2
Total long-term debt	<u>3,927</u>	<u>3,853</u>
Less current maturities	1	7
Long-term debt, net	<u>\$ 3,926</u>	<u>\$ 3,846</u>

Borrowing under Term Loan E had a weighted average interest rate of 6.25% and 8.54% during 2002 and 2001, respectively. The 9.5% Senior Secured Notes due 2008 have a face amount of \$337 million and are shown net of unamortized discount of \$7 million.

The amended credit facility and the amended indentures pertaining to Lyondell's senior secured notes and senior subordinated notes contain covenants that, subject to exceptions, restrict sale and leaseback transactions, lien incurrence, debt incurrence, dividends, investments, non-regulatory capital expenditures, certain payments, sales of assets and mergers. In addition, the credit facility requires Lyondell to maintain specified financial ratios and consolidated net worth, as defined in the credit facility. The breach of these covenants could permit the lenders to declare the loans immediately payable and could permit the lenders under Lyondell's credit facility to terminate future lending commitments. Furthermore, a default under Equistar's debt instruments which results in, or permits, the acceleration of more than \$50 million of indebtedness would constitute a cross-default under Lyondell's credit facility.

As a result of continuing adverse conditions in the industry, in March 2003, Lyondell obtained amendments to its credit facility to provide additional financial flexibility by easing certain financial ratio requirements. The BDO-2 transaction documents were also amended to incorporate the revised covenants from the credit facility.

Following amendments to the indentures for certain Equistar debt in November 2000, Lyondell is guarantor of \$300 million of the Equistar debt and a co-obligor with Equistar for \$30 million. Under certain limited circumstances the debt holders of the \$30 million on which Lyondell is a co-obligor have the right to require repurchase of the debt by Lyondell.

Aggregate maturities of all long-term debt during the next five years are \$1 million in 2003, \$1 million in 2004, \$151 million in 2005, \$50 million in 2006, \$1.9 billion in 2007 and \$1.8 billion thereafter.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

14. Lease Commitments

Lyondell leases various facilities and equipment under noncancelable lease arrangements for varying periods. As of December 31, 2002, future minimum lease payments for the next five years and thereafter, relating to all noncancelable operating leases with terms in excess of one year were as follows:

<u>Millions of dollars</u>	
2003	\$ 69
2004	67
2005	62
2006	54
2007	39
Thereafter	79
Total minimum lease payments	\$ 370

Operating lease net rental expenses for 2002, 2001 and 2000 were \$71 million, \$70 million and \$74 million, respectively.

In July 2002, Lyondell began leasing a new butanediol ("BDO") production facility in The Netherlands, known as BDO-2, under an operating lease with an initial term of 5 years. Construction of the facility, completed in June 2002, was financed by an unaffiliated entity that had been established for the purpose of serving as lessor with respect to this facility. Future minimum annual lease payments under the operating lease, amounting to \$13 million per year using December 31, 2002 exchange and interest rates, are equivalent to interest on the lessor's cost of construction, and are included for 5 years in the table above. The interest rate specified in the lease is based on EURIBOR plus 3.75%.

Lyondell may, at its option, renew the lease for four additional five-year terms or may purchase the facility at any time during the lease terms at the lessor's cost of construction. If Lyondell does not exercise the purchase option before the end of the last renewal period, the facility will be sold. In the event the sales proceeds are less than the lessor's cost of construction, Lyondell will pay the difference to the lessor, but not more than the guaranteed residual value. The guaranteed residual value, which is not included in future minimum lease payments above, is 155 million euros, or \$162 million, using December 31, 2002 exchange rates. Under the transaction documents related to BDO-2, Lyondell is subject to certain financial and other covenants that are substantially the same as those contained in Lyondell's credit facility. See Note 13.

15. Financial Instruments and Derivatives

The effects of foreign currency derivative instruments were not significant during 2002, 2001 and 2000. Foreign exchange transactions were insignificant in 2002 and 2001, and a net gain of \$13 million in 2000.

The carrying value and the estimated fair value of Lyondell's non-current, non-derivative financial instruments as of December 31, 2002 and 2001 are shown in the table below:

<u>Millions of dollars</u>	<u>2002</u>		<u>2001</u>	
	<u>Carrying Value</u>	<u>Fair Value</u>	<u>Carrying Value</u>	<u>Fair Value</u>
Investments and long-term receivables	\$2,349	\$ 2,630	\$ 1,619	\$ 1,949
Long-term debt, including current maturities	3,927	3,367	3,853	3,816

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The fair value of all nonderivative financial instruments included in current assets and current liabilities, including cash and cash equivalents, other short-term investments, accounts receivable, accounts payable and notes payable, approximated their carrying value due to their short maturity. Investments and long-term receivables, which consist primarily of equity investments in affiliated companies, were valued using current financial and other available information. Long-term debt, including amounts due within one year, was valued based upon the borrowing rates currently available to Lyondell for debt with terms and average maturities similar to Lyondell's debt portfolio. Lyondell estimates the fair value of its residual value guarantee under an operating lease (see Note 14) and the fair value of its guarantee of certain Equistar debt (see Note 13) are not significant due to the low probability of future payments under the guarantee provisions.

Lyondell is exposed to credit risk related to its financial instruments in the event of nonperformance by the counterparties. Lyondell does not generally require collateral or other security to support these financial instruments. The counterparties to these transactions are major institutions deemed creditworthy by Lyondell. Lyondell does not anticipate nonperformance by the counterparties.

16. Pension and Other Postretirement Benefits

Lyondell has defined benefit pension plans which cover employees in the United States and a number of other countries. Retirement benefits are based on years of service and the employee's highest three consecutive years of compensation during the last ten years of service. Lyondell accrues pension costs based upon an actuarial valuation and funds the plans through periodic contributions to pension trust funds as required by applicable law. Lyondell also has unfunded supplemental nonqualified retirement plans, which provide pension benefits for certain employees in excess of the tax-qualified plans' limits. In addition, Lyondell sponsors unfunded postretirement benefit plans other than pensions for U.S. employees, which provide medical and life insurance benefits. The postretirement medical plans are contributory, while the life insurance plans are, generally, noncontributory. The life insurance benefits will no longer be provided to employees retiring after July 1, 2002.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The following table provides a reconciliation of benefit obligations, plan assets and the funded status of the plans:

<u>Millions of dollars</u>	<u>Pension Benefits</u>		<u>Other</u>	
	<u>2002</u>	<u>2001</u>	<u>Postretirement Benefits</u>	<u>2002</u>
			<u>2001</u>	
Change in benefit obligation:				
Benefit obligation, January 1	\$ 554	\$ 431	\$ 91	\$ 69
Service cost	17	15	2	2
Interest cost	35	36	5	5
Plan amendments	(19)	--	(9)	19
Actuarial loss	35	108	4	--
Benefits paid	(33)	(34)	(5)	(4)
Other	1	1	--	--
Foreign exchange effects	19	(3)	--	--
Benefit obligation, December 31	<u>609</u>	<u>554</u>	<u>88</u>	<u>91</u>
Change in plan assets:				
Fair value of plan assets, January 1	364	412	--	--
Actual return on plan assets	(45)	(26)	--	--
Company contributions	4	17	5	4
Benefits paid	(33)	(34)	(5)	(4)
Foreign exchange effects	17	(5)	--	--
Fair value of plan assets, December 31	<u>307</u>	<u>364</u>	<u>--</u>	<u>--</u>
Funded status	(302)	(190)	(88)	(91)
Contributions	2	--	--	--
Unrecognized actuarial and investment loss	326	224	11	7
Unrecognized prior service cost (benefit)	(12)	5	(12)	(4)
Unrecognized transition obligation	3	3	--	--
Net amount recognized	<u>\$ 17</u>	<u>\$ 42</u>	<u>\$ (89)</u>	<u>\$ (88)</u>
Amounts recognized in the				
Consolidated Balance Sheet consist of:				
Prepaid benefit cost	\$ 21	\$ 17	\$ --	\$ --
Accrued benefit liability	(213)	(124)	(89)	(88)
Intangible asset	3	3	--	--
Accumulated other comprehensive income – pretax	206	146	--	--
Net amount recognized	<u>\$ 17</u>	<u>\$ 42</u>	<u>\$ (89)</u>	<u>\$ (88)</u>

The above table for pension benefits includes non-U.S. pension plans of Lyondell. These plans constituted approximately 22% of the benefit obligation and 32% of the plan assets at December 31, 2002 and 18% of the benefit obligation and 26% of the plan assets at December 31, 2001.

The decrease in pension benefit obligations due to plan amendments in 2002 primarily resulted from changes limiting lump sum payouts of pension benefits in certain circumstances. The decrease in other postretirement benefit obligations due to plan amendments in 2002 primarily resulted from a change discontinuing life insurance benefits for employees retiring after July 1, 2002. The increase in other postretirement benefit obligations due to plan amendments in 2001 resulted from a change in the medical plan that increased Lyondell's minimum contribution level per employee.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Pension plans with projected benefit obligations in excess of the fair value of assets are summarized as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Projected benefit obligations	\$ 609	\$ 475
Fair value of assets	307	285

Pension plans with accumulated benefit obligations in excess of the fair value of assets are summarized as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Accumulated benefit obligations	\$ 430	\$ 399
Fair value of assets	221	285

Net periodic pension and other postretirement benefit costs included the following components:

<u>Millions of dollars</u>	<u>Pension Benefits</u>			<u>Other Postretirement Benefits</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Components of net periodic benefit cost:						
Service cost	\$ 17	\$ 15	\$ 14	\$ 2	\$ 2	\$ 2
Interest cost	35	36	31	5	5	5
Actual loss (gain) on plan assets	45	26	(5)	--	--	--
Less-unrecognized loss	(77)	(62)	(45)	--	--	--
Recognized gain on plan assets	(32)	(36)	(40)	--	--	--
Prior service cost amortization	(2)	--	1	(1)	(2)	(3)
Actuarial and investment loss amortization	15	9	2	--	--	--
Net effect of curtailments, settlements and special termination benefits	--	9	(13)	--	1	(4)
Net periodic benefit cost	<u>\$ 33</u>	<u>\$ 33</u>	<u>\$ (5)</u>	<u>\$ 6</u>	<u>\$ 6</u>	<u>\$ --</u>

The 2001 net effect of curtailments, settlements and special termination benefits was primarily due to lump-sum settlements taken by retiring employees, which resulted in a net charge, while the 2000 net effect primarily related to employees terminated as part of the asset sale to Bayer, which resulted in a net credit. Non-U.S. pension plans comprised \$5 million, \$1 million and \$2 million of net periodic pension cost for 2002, 2001 and 2000, respectively.

The assumptions used in determining the domestic net pension cost and net pension liability were as follows at December 31:

	<u>Pension Benefits</u>			<u>Other Postretirement Benefits</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Weighted-average assumptions as of December 31:						
Discount rate	6.50%	7.00%	7.50%	6.50%	7.00%	7.50%
Expected return on plan assets	9.50%	9.50%	9.50%	--	--	--
Rate of compensation increase	4.50%	4.50%	4.50%	--	4.50%	4.50%

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The assumptions used in determining the net periodic pension cost and pension obligation for non-U.S. pension plans were based on the economic environment of each applicable country.

The assumed annual rate of increase in the per capita cost of covered health care benefits as of December 31, 2002 was 10% for 2003 through 2004, 7% for 2005 through 2007, and 5% thereafter. The health care cost trend rate assumption does not have a significant effect on the amounts reported due to limits on Lyondell's maximum contribution level to the medical plan. To illustrate, increasing or decreasing the assumed health care cost trend rates by one percentage point in each year would change the accumulated postretirement benefit liability as of December 31, 2002 by \$1 million and would not have a material effect on the aggregate service and interest cost components of the net periodic postretirement benefit cost for the year then ended.

Lyondell also maintains voluntary defined contribution savings plans for eligible employees. Contributions to the plans by Lyondell were \$10 million, \$12 million and \$11 million for the years ended December 31, 2002, 2001 and 2000, respectively.

17. Income Taxes

The significant components of the provision for (benefit from) income taxes were as follows for the years ended December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Current:			
Federal	\$ (34)	\$ (92)	\$ 154
Foreign	(3)	15	8
State	3	(2)	6
Total current	<u>(34)</u>	<u>(79)</u>	<u>168</u>
Deferred:			
Federal	(52)	(35)	71
Foreign	26	52	(31)
State	2	(14)	15
Total deferred	<u>(24)</u>	<u>3</u>	<u>55</u>
Income tax (benefit) provision before tax effects of extraordinary items and other comprehensive income	\$ (58)	\$ (76)	\$ 223
Tax effect of extraordinary items	(8)	(2)	(17)
Tax effects of elements of other comprehensive income:			
Minimum pension liability	(34)	(46)	(5)
Net unrealized losses on derivative instruments	<u>--</u>	<u>(1)</u>	<u>--</u>
Total income tax (benefit) provision on comprehensive income	<u>\$ (100)</u>	<u>\$ (125)</u>	<u>\$ 201</u>

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes, and the amounts used for income tax purposes. Significant components of Lyondell's deferred tax liabilities and assets were as follows as of December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Deferred tax liabilities:		
Accelerated tax depreciation	\$ 687	\$ 587
Investments in joint venture partnerships	846	505
Goodwill	61	53
Other	29	20
Total deferred tax liabilities	<u>1,623</u>	<u>1,165</u>
Deferred tax assets:		
Net operating loss carryforwards	443	318
Employee benefit plans	187	145
Deferred charges and revenues	63	70
Federal benefit attributable to deferred foreign taxes	43	25
Alternative minimum tax credit carryforwards	--	42
Other	70	68
Total deferred tax assets	<u>806</u>	<u>668</u>
Deferred tax asset valuation allowance	(29)	(16)
Net deferred tax assets	<u>777</u>	<u>652</u>
Net deferred tax liabilities	846	513
Add current portion of deferred tax assets	35	277
Long-term deferred income taxes	<u>\$ 881</u>	<u>\$ 790</u>

Lyondell has federal, state and foreign tax loss carryforwards, the tax benefit of which would be \$443 million at the current statutory rate. The federal loss carryforward benefits of \$366 million would begin expiring in 2014 and the foreign tax loss carryforward benefits in excess of the valuation reserve have no expiration date. The state tax loss carryforward benefits are \$2 million.

During 2002, Lyondell converted certain intercompany debt of a French partnership into equity, thereby creating French taxable income that absorbed approximately 41 million euros, or \$42 million, of French five-year loss carryforwards. The new equity can be reconverted into debt over the next 10 years, assuming business results improve. Such reconversion will give rise to French tax losses equal to any equity reconverted to debt. Lyondell has recognized a deferred tax asset and a related valuation reserve of \$15 million at December 31, 2002 in connection with this transaction.

Management believes that it is more likely than not that the \$777 million of deferred tax assets in excess of the valuation reserve of \$29 million at December 31, 2002 will be realized. This conclusion is supported by the significant excess of total deferred tax liabilities over net deferred tax assets. These deferred tax liabilities, primarily related to depreciation, will reverse over the next 15 to 20 years. In addition, as discussed above, certain carryforwards either have no expiration dates or have long carryforward periods prior to their expiration.

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The domestic and non-U.S. components of income (loss) before income taxes and extraordinary items and a reconciliation of the income tax provision to theoretical income tax computed by applying the U.S. federal statutory tax rate are as follows:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Income (loss) before income taxes and extraordinary items:			
Domestic	\$ (254)	\$ (280)	\$ 759
Non-U.S.	63	59	(66)
Total	<u>\$ (191)</u>	<u>\$ (221)</u>	<u>\$ 693</u>
Theoretical income tax at U.S. statutory rate	\$ (67)	\$ (77)	\$ 243
Increase (reduction) resulting from:			
Reorganization of non-U.S. operations	--	--	(37)
Other effects of non-U.S. operations	11	17	(18)
Changes in estimates for prior year items	(2)	(23)	--
Goodwill and other permanent differences	(3)	3	11
State income taxes, net of federal	3	1	14
Other, net	--	3	10
Income tax (benefit) provision	<u>\$ (58)</u>	<u>\$ (76)</u>	<u>\$ 223</u>
Effective income tax rate, including extraordinary items	<u>(31.0)%</u>	<u>(34.0)%</u>	<u>32.2%</u>

The change in estimate for prior year items in 2001 primarily represents certain tax effects related to the sale of assets to Bayer.

18. Commitments and Contingencies

Commitments—Lyondell has various purchase commitments for materials, supplies and services incident to the ordinary conduct of business, generally for quantities required for Lyondell's businesses and at prevailing market prices. Lyondell is party to various unconditional purchase obligation contracts as a purchaser for products and services, principally utilities and industrial gases. At December 31, 2002, future minimum payments under these contracts with noncancelable contract terms in excess of one year and fixed minimum payments were as follows:

<u>Millions of dollars</u>	
2003	\$ 155
2004	149
2005	120
2006	121
2007	121
Thereafter through 2018	674
Total minimum contract payments	<u>\$ 1,340</u>

Lyondell's total purchases under these agreements were \$200 million for the year ended December 31, 2002.

TDI Agreements—Under an agreement effective January 1, 2002, Lyondell is committed to purchase minimum annual quantities of TDI at plant cost from Rhodia through 2016. Such annual commitments, which are not included in the table above, are currently estimated at approximately 200 million pounds of TDI per year. Under the new agreement and a predecessor tolling agreement and resale agreement, both entered into in 1995, Lyondell's purchases, including amounts in excess of its previous minimum of 212 million pounds of TDI per year, were \$90 million, \$120 million and \$159 million in 2002, 2001 and 2000, respectively. The resale agreement expired

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

December 31, 2001. The 2002 agreement superseded the 1995 tolling agreement. The decrease in 2002 purchases was due to maintenance activity at the Rhodia plant as well as the expiration of the resale agreement.

Capital Commitments—Lyondell has various commitments related to capital expenditures, all made in the normal course of business. At December 31, 2002, major capital commitments primarily consisted of Lyondell's 50% share of those related to the construction of a world-scale PO/SM facility, known as PO-11, in The Netherlands. Lyondell's share of the outstanding commitments, which are funded through contributions and advances to affiliates, totaled \$76 million as of December 31, 2002.

Construction Lease—In June 2002, construction was completed on the BDO-2 production facility, and Lyondell leased the facility under an operating lease beginning in July 2002. See Note 14.

Bayer Claim—On April 30, 2002, Lyondell and Bayer settled the claims of Bayer in relation to its March 2000 purchase of Lyondell's polyols business. The settlement included new or amended commercial agreements between the parties, generally relating to the existing propylene oxide ("PO") partnership between Bayer and Lyondell. As a whole, the new or amended agreements provide new business opportunities and value for both parties over the next five to ten years. Concurrent with the settlement, Lyondell made a \$5 million indemnification payment to Bayer. The settlement, including the indemnification payment, had no net effect on Lyondell's financial position or results of operations.

Crude Supply Agreement—Under the Crude Supply Agreement, PDVSA Oil is required to sell, and LCR is required to purchase, 230,000 barrels per day of extra heavy crude oil, which constitutes approximately 86% of the Refinery's refining capacity of 268,000 barrels per day of crude oil. Since April 1998, PDVSA Oil has, from time to time, declared itself in a force majeure situation and subsequently reduced deliveries of crude oil. Such reductions in deliveries were purportedly based on announced OPEC production cuts. PDVSA Oil informed LCR that the Venezuelan government, through the Ministry of Energy and Mines, had instructed that production of certain grades of crude oil be reduced. In certain circumstances, PDVSA Oil made payments under a different provision of the Crude Supply Agreement in partial compensation for such reductions.

In January 2002, PDVSA Oil again declared itself in a force majeure situation and stated that crude oil deliveries could be reduced by up to 20.3% beginning March 1, 2002. Beginning in March 2002, deliveries of crude oil to LCR were reduced to approximately 198,000 barrels per day, reaching a level of 190,000 barrels per day during the second quarter 2002. Crude oil deliveries to LCR under the Crude Supply Agreement increased to the contract level of 230,000 barrels per day during the third quarter 2002, averaging 212,000 barrels per day for the third quarter. Although deliveries increased to contract levels during the third quarter 2002, PDVSA Oil did not revoke its January 2002 force majeure declaration during 2002. A national strike in Venezuela began in early December 2002 and disrupted deliveries of crude oil to LCR under the Crude Supply Agreement, causing LCR to temporarily reduce operating rates. PDVSA Oil again declared a force majeure and reduced deliveries of crude oil to LCR. Recent media reports indicate that the force majeure has been lifted.

LCR has consistently contested the validity of PDVSA Oil's and PDVSA's reductions in deliveries under the Crude Supply Agreement. The parties have different interpretations of the provisions of the contracts concerning the delivery of crude oil. The contracts do not contain dispute resolution procedures, and the parties have been unable to resolve their commercial dispute. As a result, on February 1, 2002, LCR filed a lawsuit against PDVSA and PDVSA Oil in connection with the force majeure declarations.

From time to time, Lyondell and PDVSA have had discussions covering both a restructuring of the Crude Supply Agreement and a broader restructuring of the LCR partnership. Lyondell is unable to predict whether changes in either arrangement will occur. Subject to the consent of the other partner and rights of first offer and first refusal, the partners each have a right to transfer their interests in LCR to unaffiliated third parties in certain circumstances. In the event that CITGO were to transfer its interest in LCR to an unaffiliated third party, PDVSA Oil would have an option to terminate the Crude Supply Agreement.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Depending on then-current market conditions, any breach or termination of the Crude Supply Agreement, or reduction in supply thereunder, would require LCR to purchase all or a portion of its crude oil in the merchant market, could subject LCR to significant volatility and price fluctuations and could adversely affect LCR and, therefore, Lyondell. There can be no assurance that alternative crude oil supplies with similar margins would be available for purchase by LCR.

Indemnification Arrangements Relating to Equistar—Lyondell, Millennium Petrochemicals and Occidental and certain of its subsidiaries have each agreed to provide certain indemnifications to Equistar with respect to the petrochemicals and polymers businesses they each contributed. In addition, Equistar agreed to assume third party claims that are related to certain contingent liabilities arising prior to the contribution transactions that are asserted prior to December 1, 2004 as to Lyondell and Millennium Petrochemicals, and May 15, 2005 as to Occidental, to the extent the aggregate thereof does not exceed \$7 million for each entity, subject to certain terms of the respective asset contribution agreements. As of December 31, 2002, Equistar had incurred approximately \$7 million with respect to the indemnification basket for the business contributed by Lyondell. Lyondell, Millennium and Occidental each remain liable under these indemnification arrangements to the same extent following Lyondell's acquisition of Occidental's interest in Equistar as they were before. See Note 7.

Environmental Remediation—As of December 31, 2002, Lyondell's environmental liability for future remediation costs at its plant sites and a limited number of Superfund sites totaled \$19 million. The liabilities per site range from less than \$1 million to \$4 million per site and are expected to be incurred over the next two to seven years. In the opinion of management, there is currently no material estimable range of loss in excess of the amount recorded for these sites. However, it is possible that new information about the sites for which the accrual has been established, new technology or future developments such as involvement in investigations by regulatory agencies, could require Lyondell to reassess its potential exposure related to environmental matters.

Clean Air Act—The eight-county Houston/Galveston region has been designated a severe non-attainment area for ozone by the U.S. Environmental Protection Agency ("EPA"). Emission reduction controls for nitrogen oxides ("NOx") must be installed at LCR's refinery and each of Lyondell's two facilities and Equistar's six facilities in the Houston/Galveston region during the next several years. Recently adopted revisions by the regulatory agencies changed the required NOx reduction levels from 90% to 80%. Under the previous 90% reduction standard, Lyondell estimated that aggregate related capital expenditures could total between \$400 million and \$500 million for Lyondell, Equistar and LCR before the 2007 deadline. Under the revised 80% standard, Lyondell estimates that capital expenditures would decrease to between \$250 million and \$300 million for Lyondell, Equistar and LCR.

The following table summarizes the range of projected capital expenditures for Lyondell and its joint ventures to comply with the 80% NOx emission reduction requirements:

<u>Millions of dollars</u>	<u>From</u>	<u>To</u>
NOx capital expenditures – 100% basis:		
Lyondell	\$ 35	\$ 45
Equistar	165	200
LCR	50	55
Total NOx capital expenditures	<u>\$ 250</u>	<u>\$ 300</u>
NOx capital expenditures – Lyondell share:		
Lyondell	\$ 35	\$ 45
Equistar	115	140
LCR	30	35
Total Lyondell share NOx capital expenditures	<u>\$ 180</u>	<u>\$ 220</u>

However, the savings from this revision could be offset by the costs of stricter proposed controls over highly reactive, volatile organic compounds, or HRVOCs. Lyondell, Equistar and LCR are still assessing the impact of the

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

proposed HRVOC revisions and there can be no guarantee as to the ultimate capital cost of implementing any final plan developed to ensure ozone attainment by the 2007 deadline. The timing and amount of these expenditures are also subject to regulatory and other uncertainties, as well as obtaining the necessary permits and approvals.

In the United States, the Clean Air Act Amendments of 1990 set minimum levels for oxygenates, such as MTBE, in gasoline sold in areas not meeting specified air quality standards. However, the presence of MTBE in some water supplies in California and other states due to gasoline leaking from underground storage tanks and in surface water from recreational water craft has led to public concern about the use of MTBE. Certain federal and state governmental initiatives in the U.S. have sought either to rescind the oxygen requirement for reformulated gasoline or to restrict or ban the use of MTBE. Lyondell's North American MTBE sales represented approximately 26% of its total 2002 revenues. The U.S. House of Representatives and the U.S. Senate each passed versions of an omnibus energy bill during 2001 and 2002, respectively. The Senate version of the energy bill would have resulted in a ban on the use of MTBE. The two energy bills were not reconciled during the conference process and an omnibus energy bill was not passed during 2002.

Both the U.S. House of Representatives and the U.S. Senate are expected to pursue an energy bill during the 2003/2004 legislative cycle. If this happens, it is likely that fuel content, including MTBE use, will be a subject of legislative debate. Factors which could be considered in this debate include the impact on gasoline price and supply and the potential for degradation of air quality.

At the state level, a number of states have legislated future MTBE bans. Of these, a number are mid-West states that use ethanol as the oxygenate of choice. Bans in these states should not have an impact on MTBE demand. However, Connecticut, California and New York have bans of MTBE in place effective October 1, 2003, January 1, 2004, and January 1, 2004, respectively. Lyondell estimates that California represents 34% of the U.S. MTBE industry demand and 20% of the worldwide MTBE industry demand, while Connecticut and New York combined represent 12% of the U.S. MTBE industry demand and 7% of the worldwide MTBE industry demand.

At this time, Lyondell cannot predict the impact that these initiatives will have on MTBE margins or volumes during 2003. However, several major oil companies have announced plans, beginning in 2003, to discontinue the use of MTBE in gasoline produced for California markets. Lyondell estimates that the California-market MTBE volumes of these companies account for an estimated 18% of U.S. MTBE industry demand and 10% of worldwide MTBE industry demand. Lyondell intends to continue marketing MTBE in the U.S. However, should it become necessary or desirable to significantly reduce MTBE production, Lyondell would need to make capital expenditures to add the flexibility to produce alternative gasoline blending components, such as iso-octane or ethyl tertiary butyl ether ("ETBE"), at its U.S.-based MTBE plants. The current cost estimates for converting Lyondell's U.S.-based MTBE plant to iso-octane production range from \$65 million to \$75 million. The profit contribution for isooctane is likely to be lower than that historically realized on MTBE. Alternatively, Lyondell is pursuing ETBE viability through legislative efforts. One key hurdle is equal access to the federal subsidy provided for ethanol blended into gasoline for the ethanol component of ETBE. Lyondell's U.S.-based MTBE plant is capable of ETBE production with minimal capital requirements.

The Clean Air Act also specified certain emissions standards for vehicles, and in 1998, the EPA concluded that additional controls on gasoline and diesel fuel were necessary. New standards for gasoline were finalized in 1999 and will require refiners to produce a low sulfur gasoline by 2004, with final compliance by 2006. A new "on-road" diesel standard was adopted in January 2001 and will require refiners to produce ultra low sulfur diesel by June 2006, with some allowance for a conditional phase-in period that could extend final compliance until 2009. Lyondell estimates that these standards will result in increased capital investment for LCR, totaling between \$175 million to \$225 million for the new gasoline standards and between \$250 million to \$300 million for the new diesel standard, between now and the implementation dates. Lyondell's 58.75% share of LCR's capital expenditures would be between \$250 million and \$300 million. In addition, these standards could result in higher operating costs for LCR. Equistar's business may also be impacted if these standards increase the cost for processing fuel components.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

General—Lyondell is involved in various lawsuits and proceedings. Subject to the uncertainty inherent in all litigation, management believes the resolution of these proceedings will not have a material adverse effect on the financial position, liquidity or results of operations of Lyondell.

In the opinion of management, any liability arising from the matters discussed in this note is not expected to have a material adverse effect on the financial position or liquidity of Lyondell. However, the adverse resolution in any reporting period of one or more of these matters discussed in this note could have a material impact on Lyondell's results of operations for that period without giving effect to contribution or indemnification obligations of co-defendants or others, or to the effect of any insurance coverage that may be available to offset the effects of any such award.

19. Stockholders' Equity

Preferred Stock—Lyondell has authorized 80 million shares of \$.01 par value preferred stock. As of December 31, 2002, none was outstanding.

Common Stock—In July 2002, Lyondell issued 8.28 million shares of common stock at \$14 per share. The net proceeds of \$110 million were credited to "Common stock" and "Additional paid in capital" in the Consolidated Balance Sheet. As a result of debt amendments (see Note 13), certain covenants restricting dividends were revised to allow an annual cash dividend of up to \$0.90 per share on all common shares outstanding and any additional common shares that may be issued from time to time in the future.

Series B Common Stock, Warrants and Right—On August 22, 2002, Lyondell completed certain transactions with Occidental. As a result of these transactions, Occidental received an equity interest in Lyondell, including:

- 34 million shares of newly issued Lyondell Series B common stock. These shares have the same rights as Lyondell's original common stock with the exception of the dividend. The Series B common stock pays a dividend at the same rate as the original common stock but, at Lyondell's option, the dividend may be paid in additional shares of Series B common stock or in cash. These new Series B shares also include provisions for conversion to original common stock three years after issuance or earlier in certain circumstances;
- five-year warrants to acquire five million shares of Lyondell original common stock at \$25 per share; and
- a right to receive contingent payments equivalent in value to 7.38% of Equistar's cash distributions related to 2002 and 2003, up to a total of \$35 million, payable in cash, Series B common stock or original common stock, as determined by Lyondell.

The \$439 million recognized fair value of the 34.0 million shares of Series B common stock issued was determined based on an average of the high and low per-share stock prices for original common stock for 10 consecutive business days, beginning 4 business days prior to and ending 5 business days after August 8, 2002, the first date that the number of shares of Series B common stock to be issued became fixed without subsequent revision. The warrants were valued at \$1.60 per share, based upon a value estimated using the Black-Sholes option pricing model. The right to receive contingent payments was valued at \$3 million, based on the estimated amount and likelihood of payment in light of Lyondell's expectations for Equistar's business results for 2002 and 2003. The total value of the Series B common stock, the warrants and the right as well as \$2 million of transaction expenses was \$452 million.

Lyondell elected to pay the dividend payable to Occidental on December 31, 2002 in additional shares of Series B common stock. As a result of these transactions, Occidental has an approximate 22% equity interest in Lyondell.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Accumulated Other Comprehensive Loss—The components of accumulated other comprehensive loss were as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Foreign currency translation	\$ (111)	\$ (300)
Minimum pension liability	(160)	(95)
Unrealized loss on derivative instruments	--	(2)
Total accumulated other comprehensive loss	<u>\$ (271)</u>	<u>\$ (397)</u>

Treasury Stock—From time to time Lyondell purchases its shares in the open market to issue under its employee compensation and benefits plans, including stock option and restricted stock plans.

Rights to Purchase Common Stock—On December 8, 1995, the Board of Directors of Lyondell declared a dividend of one right (“Right”) for each outstanding share Lyondell’s common stock to stockholders of record on December 20, 1995. The Rights become exercisable upon the earlier of: (i) ten days following a public announcement by another entity that it has acquired beneficial ownership of 15% or more of the outstanding shares of common stock; or (ii) ten business days following the commencement of a tender offer or exchange offer to acquire beneficial ownership of 15% or more of the outstanding shares of common stock, except under certain circumstances. The Rights expire at the close of business on December 8, 2005 unless earlier redeemed at a price of \$.0005 per Right or exchanged by Lyondell as described in the Rights Agreement dated as of December 8, 1995.

In connection with the sale of securities to Occidental described above under “Series B Common Stock, Warrants and Right” Lyondell’s Board of Director’s adopted resolutions exempting Occidental and its affiliates from certain definitions used in the agreement pertaining to these Rights. These resolutions authorize Occidental and its affiliates to acquire, without triggering the exercisability of the Rights, beneficial ownership of any securities contemplated by the transaction documents relating to the sale of securities described above under “Series B Common Stock, Warrants and Right” as long as their aggregate direct and indirect beneficial ownership does not exceed 40% of Lyondell’s issued and outstanding common stock.

1999 Incentive Plan—The 1999 Long-Term Incentive Plan (“1999 LTIP”) provides for the grant of awards to employees of Lyondell and its subsidiaries. Awards to employees may be in the form of (i) stock options, (ii) stock appreciation rights, payable in cash or common stock, (iii) restricted grants of common stock or units denominated in common stock, (iv) performance grants denominated in common stock or units denominated in common stock that are subject to the attainment of one or more goals, (v) grants of rights to receive the value of a specified number of shares of common stock (phantom stock), and (vi) a cash payment. Awards under the 1999 LTIP are generally limited to the lesser of 14 million shares or 12% of the number of shares of common stock outstanding at the time of granting of the award. During 2002, 2001 and 2000, Lyondell awarded stock option grants for 3,232,636 shares, 3,143,231 shares and 2,228,241 shares, respectively, under this plan.

Restricted Stock Plan—Under the 1995 Restricted Stock Plan, one million shares of common stock are authorized for grants and awards to officers and other key management employees. Lyondell grants fixed awards of common stock that are forfeitable and subject to restrictions on transfer. Vesting is contingent on the participant’s continuing employment with Lyondell for a period specified in the award. During 2002, 2001 and 2000 Lyondell granted and issued restricted stock of 2000 shares, 2,587 shares and 60,436 shares, respectively, to officers and employees, using treasury stock for this purpose. The shares vest on various dates through January 2004, depending upon the terms of the individual grants. Recipients are entitled to receive dividends on the restricted shares.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Stock Options—The following table summarizes activity, in thousands of shares and the weighted average exercise price per share, relating to stock options under the 1999 LTIP. As of December 31, 2002, options covering 9,624,097 shares were outstanding at prices ranging from \$11.25 to \$19.69 per share.

	2002		2001		2000	
	Shares	Price	Shares	Price	Shares	Price
Outstanding at beginning of year	6,636	\$15.59	3,666	\$14.98	1,624	\$17.79
Granted	3,233	13.91	3,143	16.25	2,228	13.07
Exercised	(102)	13.18	(50)	12.91	--	--
Cancelled	(143)	16.42	(123)	15.06	(186)	16.64
Outstanding at end of year	<u>9,624</u>	<u>15.04</u>	<u>6,636</u>	<u>15.59</u>	<u>3,666</u>	<u>14.98</u>
Exercisable at end of year	6,667	15.53	1,905	15.74	520	17.78

The following table summarizes share data in thousands of shares and the weighted average exercise prices for options outstanding and options exercisable at December 31, 2002, and the weighted average remaining life of options outstanding:

Range of Exercise Prices per Share	Options Outstanding			Options Exercisable	
	Shares	Exercise Price	Remaining Life	Shares	Exercise Price
\$11.25 to \$16.88	8,200	\$14.50	8	5,323	\$14.86
16.89 to 19.69	1,424	\$18.10	6	1,344	\$18.16
	<u>9,624</u>			<u>6,667</u>	

Lyondell's Executive Long-Term Incentive Plan ("LTI Plan") became effective in November 1988. The last stock options granted under the LTI Plan were granted in March 1994. No additional stock option grants will be made under this plan, which has expired. As of December 31, 2002, options covering 390,242 shares were outstanding under the LTI Plan with a weighted average remaining life of less than 1 year, all of which were exercisable at prices ranging from \$23.13 to \$26.00 per share.

The following summarizes stock option activity for the LTI Plan in thousands of shares and the weighted average exercise price per share:

	2002		2001		2000	
	Shares	Price	Shares	Price	Shares	Price
Outstanding at beginning of year	530	\$24.09	596	\$23.67	608	\$23.61
Exercised	--	--	--	--	(7)	20.25
Cancelled	(140)	23.00	(66)	20.25	(5)	21.30
Outstanding at end of year	<u>390</u>	<u>24.49</u>	<u>530</u>	<u>24.09</u>	<u>596</u>	<u>23.67</u>
Exercisable at end of year	390	24.49	530	24.09	596	23.67

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

20. Earnings Per Share

Basic earnings per share for the periods presented are computed based upon the weighted average number of shares of original common stock and Series B common stock outstanding during the periods. Diluted earnings per share include the effect of stock options issued under the 1999 Long-Term Incentive Plan and the Executive Long-Term Incentive Plan and outstanding warrants. These stock options and warrants were antidilutive for all periods presented. Loss per share data is as follows:

<u>Basic and Diluted EPS</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Weighted average shares, in thousands	133,943	117,563	125,212
Loss before extraordinary item per share	\$ (.99)	\$ (.57)	\$ (.38)
Net loss per share	\$ (1.10)	\$ (.57)	\$ (.44)

See Note 19 for discussion of common stock and warrants issued during 2002.

21. Supplemental Cash Flow Information

Supplemental cash flow information is summarized as follows for the years ended December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Interest paid, net of interest capitalized	<u>\$ 347</u>	<u>\$ 372</u>	<u>\$ 521</u>
Net income taxes (received) paid	<u>\$ (103)</u>	<u>\$ (12)</u>	<u>\$ 57</u>

As described in Notes 7 and 19, during August 2002, Lyondell issued certain equity securities and a right to Occidental, and received Occidental's 29.5% interest in Equistar. The transactions included concurrent payments between the parties of agreed amounts of approximately \$440 million. The agreed amounts exchanged are included in cash used for investing activities and cash from financing activities. The securities issued, and the additional investment in Equistar, have been recorded at the estimated fair value of the consideration issued totaling \$452 million plus the recognition of \$352 million of deferred tax liabilities, for a total additional investment in Equistar of \$804 million.

22. Segment and Related Information

Lyondell operates in four reportable segments:

- Intermediate chemicals and derivatives ("IC&D"), which include propylene oxide, propylene glycol, propylene glycol ethers, butanediol, toluene diisocyanate, styrene monomer, and tertiary butyl alcohol and its derivative, MTBE;
- Petrochemicals, which include ethylene, propylene, butadiene, oxygenated products and aromatics;
- Polymers, which primarily include polyethylene and polypropylene; and
- Refining of crude oil.

The accounting policies of the segments are the same as those described in "Summary of Significant Accounting Policies" (see Note 2). No customer accounted for 10% or more of consolidated sales during any year in the three-year period ended December 31, 2002. However, under the terms of LCR's Products Agreement (see Note 8), CITGO purchases substantially all of the refined products of the refining segment. Lyondell's entire \$1.1 billion balance of goodwill is allocated to the IC&D segment.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Summarized financial information concerning reportable segments is shown in the following table:

<u>Millions of dollars</u>	<u>IC&D</u>	<u>Petrochemicals</u>	<u>Polymers</u>	<u>Refining</u>	<u>Other</u>	<u>Total</u>
2002						
Sales and other						
Operating revenues	\$ 3,262	\$ --	\$ --	\$ --	\$ --	\$ 3,262
Operating income	174	--	--	--	--	174
Income (loss) from equity investments	--	65	(37)	135	(149)	14
Total assets	5,967	799	337	297	48	7,448
Capital expenditures	22	--	--	--	--	22
Depreciation and amortization expense	244	--	--	--	--	244
2001						
Sales and other						
operating revenues	\$ 3,193	\$ --	\$ --	\$ --	\$ --	\$ 3,193
Operating income	112	--	--	--	--	112
Income (loss) from equity investments	--	113	(77)	129	(125)	40
Total assets	5,887	286	115	258	157	6,703
Capital expenditures	68	--	--	--	--	68
Depreciation and amortization expense	254	--	--	--	--	254
2000						
Sales and other						
Operating revenues	\$ 4,003	\$ --	\$ --	\$ --	\$ --	\$ 4,003
Operating income	929	--	--	--	--	929
Income (loss) from equity investments	--	285	(76)	86	(96)	199
Total assets	6,150	336	142	249	170	7,047
Capital expenditures	104	--	--	--	--	104
Depreciation and amortization expense	261	--	--	--	--	261

The following table presents the details of "Income (loss) from equity investments" as presented above in the "Other" column for the years ended December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Equistar items not allocated to segments:			
Principally general and administrative expenses and interest expense, net	\$ (145)	\$ (116)	\$ (108)
Other income, net	--	3	--
Other	(4)	(12)	12
Income (loss) from equity investments	<u>\$ (149)</u>	<u>\$ (125)</u>	<u>\$ (96)</u>

Through April 30, 2002, the methanol operations of LMC were included in the "Other" column. Effective May 1, 2002, LMC was wholly owned by Lyondell and the methanol results were included in the IC&D segment from that date. The effects of consolidating the LMC operations, which previously had been accounted for using the equity method, and of including the methanol operations in the IC&D segment were not material.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The following table presents the details of "Total assets" as presented above in the "Other" column for the years ended December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Equistar items not allocated to segments:			
Goodwill	\$ --	\$ 87	\$ 99
Other assets	48	34	22
Equity investment in LMC	--	36	49
Total—Other	<u>\$ 48</u>	<u>\$ 157</u>	<u>\$ 170</u>

The following "Revenues" by country data are based upon the location of the delivery of the product. The "Long-lived assets" by country data is based upon the location of the assets.

<u>Millions of dollars</u>	<u>Revenues</u>			<u>Long-Lived Assets</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
United States	\$ 1,807	\$ 1,732	\$ 2,068	\$ 1,340	\$ 1,382	\$ 1,482
Non-U.S.	1,455	1,461	1,935	1,029	911	947
Total	<u>\$ 3,262</u>	<u>\$ 3,193</u>	<u>\$ 4,003</u>	<u>\$ 2,369</u>	<u>\$ 2,293</u>	<u>\$ 2,429</u>

Non-U.S. long-lived assets primarily consist of the net property, plant and equipment of two plants, located near Rotterdam, The Netherlands, and Fos-sur-Mer, France, both of which are part of the IC&D segment.

23. Unaudited Quarterly Results

<u>Millions of dollars, except per share data</u>	<u>For the quarter ended</u>			
	<u>March 31</u>	<u>June 30</u>	<u>September 30</u>	<u>December 31</u>
<u>2002</u>				
Sales and other operating revenues	\$ 674	\$ 843	\$ 855	\$ 890
Operating income	38	65	59	12
Income (loss) from equity investments	(21)	32	44	(41)
Net income (loss) (a)	(55)	2	(2)	(93)
Basic and diluted earnings (loss) per share before extraordinary item (a) (b)	(.47)	.02	.04	(.53)
<u>2001</u>				
Sales and other operating revenues	\$ 849	\$ 893	\$ 742	\$ 709
Operating income (loss)	31	66	(26)	41
Income (loss) from equity investments	2	42	17	(21)
Net income (loss) (a)	(34)	4	(67)	(53)
Basic and diluted earnings (loss) per share before extraordinary item (a) (b)	(.29)	.04	(.57)	(.42)

(a) The third and fourth quarter of 2002 included an extraordinary loss on early extinguishment of debt of \$7 million, or \$.06 per share and \$8 million, or \$.05 per share, respectively. The fourth quarter of 2001 included an extraordinary loss on early extinguishment of debt of \$5 million, or \$.04 per share.

(b) Earnings per common share calculations for each of the quarters are based upon the weighted average number of shares outstanding for each period (basic earnings per share). The sum of the quarters may not necessarily be equal to the full year earnings per share amount.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

24. Supplemental Guarantor Information

ARCO Chemical Technology Inc. (“ACTI”), ARCO Chemical Technology L.P. (“ACTLP”) and Lyondell Chemical Nederland, Ltd. (“LCNL”) are guarantors, jointly and severally, (collectively “Guarantors”) of the \$337 million senior secured notes issued in December 2002, the \$278 million senior secured notes issued in July 2002, the \$393 million senior secured notes issued in December 2001 and the \$500 million senior subordinated notes and \$1.9 billion senior secured notes issued in May 1999 (see Note 13). LCNL, a Delaware corporation, is a wholly owned subsidiary of Lyondell that owns a Dutch subsidiary that operates a chemical production facility near Rotterdam, The Netherlands. ACTI is a Delaware corporation, which holds the investment in ACTLP. ACTLP is a Delaware limited partnership, which holds and licenses technology to other Lyondell affiliates and to third parties. Separate financial statements of the Guarantors are not considered to be material to the holders of the senior subordinated notes and senior secured notes. The following condensed consolidating financial information present supplemental information for the Guarantors as of December 31, 2002 and 2001 and for the three years ended December 31, 2002.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

CONDENSED CONSOLIDATING FINANCIAL INFORMATION
As of and for the year ended December 31, 2002

<u>Millions of dollars</u>	<u>Lyondell</u>	<u>Guarantors</u>	<u>Non-Guarantors</u>	<u>Eliminations</u>	<u>Consolidated Lyondell</u>
BALANCE SHEET					
Total current assets	\$ 674	\$ 173	\$ 324	\$ --	\$ 1,171
Property, plant and equipment, net	872	581	916	--	2,369
Investments and long-term receivables	7,335	504	2,196	(7,686)	2,349
Goodwill, net	453	437	240	--	1,130
Other assets	313	83	33	--	429
Total assets	<u>\$ 9,647</u>	<u>\$ 1,778</u>	<u>\$ 3,709</u>	<u>\$ (7,686)</u>	<u>\$ 7,448</u>
Current maturities of long-term debt	\$ 1	\$ --	\$ --	\$ --	\$ 1
Other current liabilities	431	90	104	--	623
Long-term debt	3,924	--	2	--	3,926
Other liabilities	602	48	21	--	673
Deferred income taxes	637	172	72	--	881
Intercompany liabilities (assets)	2,873	(1,223)	(1,650)	--	--
Minority interest	--	--	165	--	165
Stockholders' equity	1,179	2,691	4,995	(7,686)	1,179
Total liabilities and stockholders' equity	<u>\$ 9,647</u>	<u>\$ 1,778</u>	<u>\$ 3,709</u>	<u>\$ (7,686)</u>	<u>\$ 7,448</u>
STATEMENT OF INCOME					
Sales and other operating revenues	\$ 2,216	\$ 807	\$ 1,814	\$ (1,575)	\$ 3,262
Cost of sales	2,259	745	1,469	(1,575)	2,898
Selling, general and administrative expenses	95	17	48	--	160
Research and development expense	30	--	--	--	30
Operating income (loss)	(168)	45	297	--	174
Interest income (expense), net	(390)	11	5	--	(373)
Other income (expense), net	(59)	23	30	--	(6)
Income (loss) from equity investments	474	(2)	36	(493)	14
Intercompany income (expense)	860	162	103	(1,123)	--
Provision for (benefit from) income taxes	219	73	144	(494)	(58)
Income (loss) before extraordinary items	498	166	327	(1,122)	(133)
Extraordinary items, net of taxes	(15)	--	--	--	(15)
Net income (loss)	<u>\$ 483</u>	<u>\$ 166</u>	<u>\$ 327</u>	<u>\$ (1,122)</u>	<u>\$ (148)</u>

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

For the year ended December 31, 2002

<u>Millions of dollars</u>	<u>Lyondell</u>	<u>Guarantors</u>	<u>Non- Guarantors</u>	<u>Eliminations</u>	<u>Consolidated Lyondell</u>
STATEMENT OF CASH FLOWS					
Net income (loss)	\$ 483	\$ 166	\$ 327	\$ (1,124)	\$ (148)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:					
Depreciation and amortization	112	40	92	--	244
Extraordinary items	15	--	--	--	15
Net changes in working capital and other	(447)	(4)	629	--	178
Net cash provided by operating activities	<u>163</u>	<u>202</u>	<u>1,048</u>	<u>(1,124)</u>	<u>289</u>
Purchase of equity investment in Equistar	(440)	--	--	--	(440)
Contributions and advances to affiliates	(3)	(46)	(68)	--	(117)
Expenditures for property, plant and equipment	(10)	(4)	(8)	--	(22)
Purchase of short-term investments	(44)	--	--	--	(44)
Net cash used in investing activities	<u>(497)</u>	<u>(50)</u>	<u>(76)</u>	<u>--</u>	<u>(623)</u>
Issuance of Series B common stock, warrants, and right	440	--	--	--	440
Issuance of common stock	110	--	--	--	110
Issuance of long-term debt	591	--	--	--	591
Repayment of long-term debt	(543)	--	--	--	(543)
Dividends paid	(109)	(138)	(986)	1,124	(109)
Other	(18)	--	--	--	(18)
Net cash provided by (used in) financing activities	<u>471</u>	<u>(138)</u>	<u>(986)</u>	<u>1,124</u>	<u>471</u>
Effect of exchange rate changes on cash	--	(7)	10	--	3
Increase (decrease) in cash and cash equivalents	<u>\$ 137</u>	<u>\$ 7</u>	<u>\$ (4)</u>	<u>--</u>	<u>\$ 140</u>

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

CONDENSED CONSOLIDATING FINANCIAL INFORMATION
As of and for the year ended December 31, 2001

<u>Millions of dollars</u>	<u>Lyondell</u>	<u>Guarantors</u>	<u>Non-Guarantors</u>	<u>Eliminations</u>	<u>Consolidated Lyondell</u>
BALANCE SHEET					
Total current assets	\$ 781	\$ 132	\$ 294	\$ --	\$ 1,207
Property, plant and equipment, net	915	516	862	--	2,293
Investments and long-term receivables	7,007	461	1,537	(7,386)	1,619
Goodwill, net	453	389	260	--	1,102
Other assets	344	88	50	--	482
Total assets	<u>\$ 9,500</u>	<u>\$ 1,586</u>	<u>\$ 3,003</u>	<u>\$ (7,386)</u>	<u>\$ 6,703</u>
Current maturities of long-term debt	\$ 7	\$ --	\$ --	\$ --	\$ 7
Other current liabilities	391	73	88	--	552
Long-term debt	3,844	--	2	--	3,846
Other liabilities	515	55	13	--	583
Deferred income taxes	611	133	46	--	790
Intercompany liabilities (assets)	3,383	(1,101)	(2,282)	--	--
Minority interest	--	--	176	--	176
Stockholders' equity	749	2,426	4,960	(7,386)	749
Total liabilities and stockholders' equity	<u>\$ 9,500</u>	<u>\$ 1,586</u>	<u>\$ 3,003</u>	<u>\$ (7,386)</u>	<u>\$ 6,703</u>
STATEMENT OF INCOME					
Sales and other operating revenues	\$ 2,178	\$ 786	\$ 1,605	\$ (1,376)	\$ 3,193
Cost of sales	2,237	566	1,435	(1,376)	2,862
Selling, general and administrative expenses	86	16	55	--	157
Research and development expense	32	--	--	--	32
Amortization of goodwill	12	11	7	--	30
Operating income (loss)	(189)	193	108	--	112
Interest income (expense), net	(384)	3	12	--	(369)
Other income (expense), net	(127)	(83)	206	--	(4)
Income (loss) from equity investments	616	--	60	(636)	40
Intercompany income (expense)	267	335	128	(730)	--
Provision for (benefit from) income taxes	62	152	174	(464)	(76)
Income (loss) before extraordinary items	121	296	340	(902)	(145)
Extraordinary items, net of taxes	(5)	--	--	--	(5)
Net income (loss)	<u>\$ 116</u>	<u>\$ 296</u>	<u>\$ 340</u>	<u>\$ (902)</u>	<u>\$ (150)</u>

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

For the year ended December 31, 2001

<u>Millions of dollars</u>	<u>Lyondell</u>	<u>Guarantors</u>	<u>Non- Guarantors</u>	<u>Eliminations</u>	<u>Consolidated Lyondell</u>
STATEMENT OF CASH FLOWS					
Net income (loss)	\$ 116	\$ 296	\$ 340	\$ (902)	\$ (150)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:					
Depreciation and amortization	123	47	84	--	254
Extraordinary items	5	--	--	--	5
Net changes in working capital and other	(647)	119	(284)	902	90
Net cash provided by (used in) operating activities	(403)	462	140	--	199
Contributions and advances to affiliates	61	(115)	(119)	--	(173)
Expenditures for property, plant and equipment	(17)	(8)	(43)	--	(68)
Distributions from affiliates in excess of earnings	(10)	--	60	--	50
Other	470	--	--	(470)	--
Net cash provided by (used in) investing activities	504	(123)	(102)	(470)	(191)
Issuance of long-term debt	385	--	--	--	385
Repayment of long-term debt	(394)	--	--	--	(394)
Dividends paid	(106)	(426)	(44)	470	(106)
Other	(7)	--	--	--	(7)
Net cash provided by (used in) financing activities	(122)	(426)	(44)	470	(122)
Effect of exchange rate changes on cash	--	67	(67)	--	--
Decrease in cash and cash equivalents	<u>\$ (21)</u>	<u>\$ (20)</u>	<u>\$ (73)</u>	<u>\$ --</u>	<u>\$ (114)</u>

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

CONDENSED CONSOLIDATING FINANCIAL INFORMATION

For the year ended December 31, 2000

<u>Millions of dollars</u>	<u>Lyondell</u>	<u>Guarantors</u>	<u>Non-Guarantors</u>	<u>Eliminations</u>	<u>Consolidated Lyondell</u>
STATEMENT OF INCOME					
Sales and other operating revenues	\$ 2,761	\$ 936	\$ 1,585	\$ (1,279)	\$ 4,003
Cost of sales	2,459	682	1,541	(1,279)	3,403
Selling, general and administrative expenses	145	5	44	--	194
Research and development expense	32	--	3	--	35
Amortization of goodwill	12	13	7	--	32
Gain on sale of assets	--	9	(599)	--	(590)
Operating income (loss)	113	227	589	--	929
Interest income (expense), net	(481)	1	18	--	(462)
Other income (expense), net	(155)	(128)	310	--	27
Gain on sale of assets	--	(9)	599	--	590
Income (loss) from equity investments	1,048	--	215	(1,064)	199
Intercompany income (expense)	(88)	156	181	(249)	--
Provision for (benefit from) income taxes	140	82	423	(422)	223
Income (loss) before extraordinary items	297	174	890	(891)	470
Extraordinary items, net of taxes	(33)	--	--	--	(33)
Net income (loss)	<u>\$ 264</u>	<u>\$ 174</u>	<u>\$ 890</u>	<u>\$ (891)</u>	<u>\$ 437</u>

LYONDELL CHEMICAL COMPANY

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

For the year ended December 31, 2000

<u>Millions of dollars</u>	<u>Lyondell</u>	<u>Guarantors</u>	<u>Non- Guarantors</u>	<u>Eliminations</u>	<u>Consolidated Lyondell</u>
STATEMENT OF CASH FLOWS					
Net income (loss)	\$ 264	\$ 174	\$ 890	\$ (891)	\$ 437
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:					
Gain on sale of assets	--	9	(599)	--	(590)
Depreciation and amortization	130	57	74	--	261
Extraordinary items	33	--	--	--	33
Net changes in working capital and other	(83)	(292)	(596)	891	(80)
Net cash provided by (used in) operating activities	344	(52)	(231)	--	61
Proceeds from sales of assets, net of cash sold	1,903	216	378	--	2,497
Contributions and advances to affiliates	12	--	(52)	--	(40)
Expenditures for property, plant and equipment	(27)	(36)	(41)	--	(104)
Distributions from affiliates in excess of earnings	(19)	--	104	--	85
Other	249	--	--	(249)	--
Net cash provided by (used in) investing activities	2,118	180	389	(249)	2,438
Repayment of long-term debt	(2,426)	--	(1)	--	(2,427)
Dividends paid	(106)	(91)	(158)	249	(106)
Other	(10)	--	--	--	(10)
Net cash provided by (used in) financing activities	(2,542)	(91)	(159)	249	(2,543)
Effect of exchange rate changes on cash	--	(49)	46	--	(3)
Increase (decrease) in cash and cash equivalents	\$ (80)	\$ (12)	\$ 45	\$ --	\$ (47)

REPORT OF INDEPENDENT ACCOUNTANTS

To the Partnership Governance Committee
of Equistar Chemicals, LP

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, of partners' capital and of cash flows present fairly, in all material respects, the financial position of Equistar Chemicals, LP (the "Partnership") and its subsidiaries at December 31, 2002 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2002 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Partnership's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2002, the Partnership adopted Statement of Financial Accounting Standards No. 142, "Accounting for Goodwill and Other Intangible Assets".

/s/ PricewaterhouseCoopers LLP

PRICEWATERHOUSECOOPERS LLP

Houston, Texas
March 10, 2003

EQUISTAR CHEMICALS, LP
CONSOLIDATED STATEMENTS OF INCOME

<u>Millions of dollars</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Sales and other operating revenues:			
Unrelated parties	\$ 4,295	\$ 4,583	\$ 5,770
Related parties	1,242	1,326	1,725
	<u>5,537</u>	<u>5,909</u>	<u>7,495</u>
Operating costs and expenses:			
Cost of sales	5,388	5,755	6,908
Selling, general and administrative expenses	155	181	182
Research and development expense	38	39	38
Amortization of goodwill	--	33	33
	<u>5,581</u>	<u>6,008</u>	<u>7,161</u>
Operating income (loss)	(44)	(99)	334
Interest expense	(205)	(192)	(185)
Interest income	1	3	4
Other income, net	2	8	--
Income (loss) before extraordinary item and cumulative effect of accounting change	(246)	(280)	153
Extraordinary loss on extinguishment of debt	--	(3)	--
Cumulative effect of accounting change	(1,053)	--	--
Net income (loss)	<u>\$ (1,299)</u>	<u>\$ (283)</u>	<u>\$ 153</u>

See Notes to the Consolidated Financial Statements.

EQUISTAR CHEMICALS, LP
CONSOLIDATED BALANCE SHEETS

Millions of dollars	December 31,	
	2002	2001
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 27	\$ 202
Accounts receivable:		
Trade, net	490	470
Related parties	135	100
Inventories	424	448
Prepaid expenses and other current assets	50	36
Total current assets	1,126	1,256
Property, plant and equipment, net	3,565	3,705
Investment in PD Glycol	46	47
Goodwill, net	--	1,053
Other assets, net	315	277
Total assets	\$ 5,052	\$ 6,338
LIABILITIES AND PARTNERS' CAPITAL		
Current liabilities:		
Accounts payable:		
Trade	\$ 421	\$ 331
Related parties	38	29
Current maturities of long-term debt	32	104
Accrued liabilities	223	227
Total current liabilities	714	691
Long-term debt	2,196	2,233
Other liabilities	221	177
Commitments and contingencies		
Partners' capital:		
Partners' accounts	1,958	3,257
Accumulated other comprehensive loss	(37)	(20)
Total partners' capital	1,921	3,237
Total liabilities and partners' capital	\$ 5,052	\$ 6,338

See Notes to the Consolidated Financial Statements.

EQUISTAR CHEMICALS, LP

CONSOLIDATED STATEMENTS OF CASH FLOWS

<u>Millions of dollars</u>	For the year ended December 31,		
	2002	2001	2000
Cash flows from operating activities:			
Net income (loss)	\$ (1,299)	\$ (283)	\$ 153
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Cumulative effect of accounting change	1,053	--	--
Depreciation and amortization	298	319	308
Net (gain) loss on disposition of assets	--	(3)	5
Extraordinary item	--	3	--
Changes in assets and liabilities that provided (used) cash:			
Accounts receivable	(54)	222	(50)
Inventories	24	61	14
Accounts payable	99	(129)	28
Other assets and liabilities, net	(66)	40	(119)
Net cash provided by operating activities	55	230	339
Cash flows from investing activities:			
Expenditures for property, plant and equipment	(118)	(110)	(131)
Other	(6)	3	4
Net cash used in investing activities	(124)	(107)	(127)
Cash flows from financing activities:			
Issuance of long-term debt	--	981	--
Repayment of long-term debt	(104)	(91)	(42)
Net borrowing (repayment) under lines of credit	--	(820)	20
Distributions to partners	--	--	(280)
Other	(2)	(9)	--
Net cash provided by (used in) financing activities	(106)	61	(302)
Increase (decrease) in cash and cash equivalents	(175)	184	(90)
Cash and cash equivalents at beginning of period	202	18	108
Cash and cash equivalents at end of period	\$ 27	\$ 202	\$ 18

See Notes to the Consolidated Financial Statements.

EQUISTAR CHEMICALS, LP

CONSOLIDATED STATEMENTS OF PARTNERS' CAPITAL

<u>Millions of dollars</u>	<u>Partners' Accounts</u>				<u>Accumulated Other Comprehensive Income (Loss)</u>	<u>Comprehensive Income (Loss)</u>
	<u>Lyondell</u>	<u>Millennium</u>	<u>Occidental</u>	<u>Total</u>		
Balance at January 1, 2000	\$ 522	\$ 1,555	\$ 1,585	\$ 3,662	\$ --	
Net income	63	45	45	153	--	\$ 153
Distributions to partners	(114)	(83)	(83)	(280)	--	--
Other	5	--	--	5	--	--
Comprehensive income						<u>\$ 153</u>
Balance at December 31, 2000	\$ 476	\$ 1,517	\$ 1,547	\$ 3,540	\$ --	
Net loss	(115)	(84)	(84)	(283)	--	\$ (283)
Other comprehensive income:						
Unrealized loss on securities	--	--	--	--	(1)	(1)
Minimum pension liability	--	--	--	--	(19)	(19)
Comprehensive loss						<u>\$ (303)</u>
Balance at December 31, 2001	\$ 361	\$ 1,433	\$ 1,463	\$ 3,257	\$ (20)	
Net loss	(569)	(383)	(347)	(1,299)	--	\$ (1,299)
Lyondell purchase of Occidental interest	1,116	--	(1,116)	--	--	
Other comprehensive income:						
Minimum pension liability	--	--	--	--	(17)	(17)
Comprehensive loss						<u>\$ (1,316)</u>
Balance at December 31, 2002	<u>\$ 908</u>	<u>\$ 1,050</u>	<u>\$ --</u>	<u>\$ 1,958</u>	<u>\$ (37)</u>	

See Notes to the Consolidated Financial Statements.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Formation of the Partnership and Operations

Lyondell Chemical Company ("Lyondell") and Millennium Chemicals Inc. ("Millennium") formed Equistar Chemicals, LP ("Equistar" or "the Partnership"), a Delaware limited partnership, which commenced operations on December 1, 1997. On May 15, 1998, Equistar was expanded with the contribution of certain assets from Occidental Petroleum Corporation ("Occidental"). Prior to August 2002, Lyondell owned 41% of Equistar and Millennium and Occidental each owned 29.5%. On August 22, 2002, Lyondell completed the purchase of Occidental's interest in Equistar and, as a result, Lyondell's ownership interest in Equistar increased to 70.5%.

Equistar owns and operates the petrochemicals and polymers businesses contributed by Lyondell, Millennium and Occidental. The petrochemicals segment manufactures and markets olefins, oxygenated products, aromatics and specialty products. Olefins include ethylene, propylene and butadiene, and oxygenated products include ethylene oxide, ethylene glycol, ethanol and methyl tertiary butyl ether ("MTBE"). The petrochemicals segment also includes the production and sale of aromatics, including benzene and toluene. The polymers segment manufactures and markets polyolefins, including high-density polyethylene ("HDPE"), low-density polyethylene ("LDPE"), linear low-density polyethylene ("LLDPE"), polypropylene, and performance polymers, all of which are used in the production of a wide variety of consumer and industrial products. The performance polymers include enhanced grades of polyethylene, including wire and cable insulating resins, and polymeric powders.

Equistar is governed by a Partnership Governance Committee consisting of six representatives, three appointed by each general partner. Most of the significant decisions of the Partnership Governance Committee require unanimous consent, including approval of the Partnership's strategic plan, capital expenditures and annual budget, issuance of additional debt and the appointment of executive management of the partnership. Distributions are made to the partners based upon their percentage ownership of Equistar. Additional cash contributions required by the Partnership are also based upon the partners' percentage ownership of Equistar.

2. Summary of Significant Accounting Policies

Basis of Presentation—The consolidated financial statements include the accounts of Equistar and its wholly owned subsidiaries.

Revenue Recognition—Revenue from product sales is recognized as risk and title to the product transfer to the customer, which usually occurs when shipment is made.

Cash and Cash Equivalents—Cash equivalents consist of highly liquid debt instruments such as certificates of deposit, commercial paper and money market accounts purchased with an original maturity date of three months or less. Cash equivalents are stated at cost, which approximates fair value. Equistar's policy is to invest cash in conservative, highly rated instruments and limit the amount of credit exposure to any one institution.

Equistar has no requirements for compensating balances in a specific amount at a specific point in time. The Partnership does maintain compensating balances for some of its banking services and products. Such balances are maintained on an average basis and are solely at Equistar's discretion. As a result, none of Equistar's cash is restricted.

Inventories—Inventories are stated at the lower of cost or market. Cost is determined using the last-in, first-out ("LIFO") basis, except for materials and supplies, which are valued using the average cost method.

Inventory exchange transactions, which involve fungible commodities and do not involve the payment or receipt of cash, are not accounted for as purchases and sales. Any resulting volumetric exchange balances are accounted for as inventory in accordance with the normal LIFO valuation policy.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Property, Plant and Equipment—Property, plant and equipment are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful asset lives, generally 25 years for major manufacturing equipment, 30 years for buildings, 10 to 15 years for light equipment and instrumentation, 15 years for office furniture and 3 to 5 years for information systems equipment. Upon retirement or sale, Equistar removes the cost of the assets and the related accumulated depreciation from the accounts and reflects any resulting gains or losses in the Consolidated Statement of Income. Equistar's policy is to capitalize interest cost incurred on debt during the construction of major projects exceeding one year.

Long-Lived Asset Impairment—Equistar evaluates long-lived assets, including identifiable intangible assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When it is probable that undiscounted future cash flows will not be sufficient to recover an asset's carrying amount, the asset is written down to its estimated fair value. Long-lived assets to be disposed of are reported at the lower of carrying amount or estimated fair value less costs to sell the assets.

Investment in PD Glycol—Equistar holds a 50% interest in a joint venture that owns an ethylene glycol facility in Beaumont, Texas ("PD Glycol"). The investment in PD Glycol is accounted for using the equity method of accounting.

Turnaround Maintenance and Repair Costs—Costs of maintenance and repairs exceeding \$5 million incurred in connection with turnarounds of major units at Equistar's manufacturing facilities are deferred and amortized using the straight-line method over the period until the next planned turnaround, generally four to six years. These costs are maintenance, repair and replacement costs that are necessary to maintain, extend and improve the operating capacity and efficiency rates of the production units.

Deferred Software Costs—Costs to purchase and to develop software for internal use are deferred and amortized on a straight-line basis over periods of 3 to 10 years.

Environmental Remediation Costs—Anticipated expenditures related to investigation and remediation of contaminated sites, which include operating facilities and waste disposal sites, are accrued when it is probable a liability has been incurred and the amount of the liability can reasonably be estimated. Estimated expenditures have not been discounted to present value.

Income Taxes—The Partnership is not subject to federal income taxes as income is reportable directly by the individual partners; therefore, there is no provision for income taxes in the accompanying financial statements.

Use of Estimates—The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Accounting Changes—Effective January 1, 2002, Equistar implemented Statement of Financial Accounting Standards ("SFAS") No. 141, *Business Combinations*, SFAS No. 142, *Goodwill and Other Intangible Assets*, and SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. Implementation of SFAS No. 141 and SFAS No. 144 did not have a material effect on the consolidated financial statements of Equistar.

Upon implementation of SFAS No. 142, Equistar reviewed goodwill for impairment and concluded that the entire balance of goodwill was impaired, resulting in a \$1.1 billion charge to earnings that was reported as the cumulative effect of an accounting change as of January 1, 2002. The conclusion was based on a comparison to Equistar's indicated fair value, using multiples of EBITDA (earnings before interest, taxes, depreciation and amortization) for comparable companies as an indicator of fair value.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

As a result of implementing SFAS No. 142, income in 2002 and subsequent years is favorably affected by \$33 million annually because of the elimination of goodwill amortization. The following table presents Equistar's results of operations for all periods presented as adjusted to eliminate goodwill amortization.

<u>Millions of dollars</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Reported income (loss) before extraordinary item and cumulative effect of accounting change	\$ (246)	\$ (280)	\$ 153
Add back: goodwill amortization	--	33	33
Adjusted income (loss) before extraordinary item and cumulative effect of accounting change	<u>\$ (246)</u>	<u>\$ (247)</u>	<u>\$ 186</u>
Reported net income (loss)	\$ (1,299)	\$ (283)	\$ 153
Add back: goodwill amortization	--	33	33
Adjusted net income (loss)	<u>\$ (1,299)</u>	<u>\$ (250)</u>	<u>\$ 186</u>

Anticipated Accounting Changes—Equistar expects to implement two significant accounting changes in 2003, as discussed below.

In April 2002, the FASB issued SFAS No. 145, *Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections*. The primary impact of the statement on Equistar, when implemented in 2003, will be the classification of gains or losses that result from the early extinguishment of debt as an element of income before extraordinary items. Reclassification of prior period gains or losses that were originally reported as extraordinary items also will be required. See Note 4.

In January 2003, the FASB issued Interpretation No. 46 (FIN No. 46), *Consolidation of Variable Interest Entities*. FIN No. 46 addresses situations in which a company should include in its financial statements the assets, liabilities and activities of another entity. FIN No. 46 applies immediately to entities created after January 31, 2003 and, for Equistar, will apply to existing entities beginning in the third quarter 2003. Equistar expects the application of FIN 46 to result in the consolidation of the entity from which it leases certain railcars. See Note 11. The consolidation of this entity as of December 31, 2002 would have resulted in a net increase in property, plant and equipment of \$116 million, a decrease in prepaid expense of approximately \$13 million, a \$103 million increase in debt and an immaterial charge to be reported as the cumulative effect of an accounting change.

Other Recent Accounting Pronouncements— In June 2001, the Financial Accounting Standards Board ("FASB") issued SFAS No. 143, *Accounting for Asset Retirement Obligations*, which addresses obligations associated with the retirement of tangible long-lived assets. In July 2002, the FASB issued SFAS No. 146, *Accounting for Exit or Disposal Activities*. SFAS No. 146 addresses the recognition, measurement and reporting of costs associated with exit and disposal activities, including restructuring activities and facility closings. SFAS No. 146 will be effective for activities initiated after December 31, 2002. Equistar does not expect adoption of SFAS No. 143 or SFAS No. 146 to have a material impact on its consolidated financial statements.

In November 2002, the FASB issued Interpretation No. 45 (FIN No. 45), *Guarantor's Accounting and Disclosure Requirements*. FIN No. 45 expands required disclosures for certain types of guarantees for the period ended December 31, 2002 and requires recognition of a liability at fair value for guarantees granted after December 31, 2002. Equistar has provided the required disclosure with respect to guarantees in Notes 11 and 12.

Reclassifications—Certain previously reported amounts have been reclassified to conform to classifications adopted in 2002.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

3. Facility Closing Costs

Equistar shut down its Port Arthur, Texas polyethylene facility in February 2001. The asset values of the Port Arthur production units were previously adjusted as part of a \$96 million restructuring charge recognized in 1999. During the first quarter 2001, Equistar recorded an additional \$22 million charge, which is included in cost of sales. The charge included environmental remediation liabilities of \$7 million, severance benefits of \$5 million, pension benefits of \$2 million, and other exit costs of \$3 million. The severance and pension benefits covered approximately 125 people employed at the Port Arthur facility. The remaining \$5 million of the charge related primarily to the write down of certain assets. Payments of \$5 million for severance, \$3 million for exit costs and \$5 million for environmental remediation were made through December 31, 2002. The pension benefits of \$2 million will be paid from the assets of the pension plans. As of December 31, 2002, the remaining liability included \$2 million for environmental remediation costs. See Note 14.

4. Extraordinary Item

As part of a 2001 refinancing related to the early repayment of a \$1.25 billion credit facility (see Note 10), Equistar wrote off unamortized debt issuance costs and amendment fees of \$3 million and reported the charge as an extraordinary loss on extinguishment of debt.

In 2003, this amount will be reclassified and no longer reported as an extraordinary item. See also Notes 2 and 10.

5. Related Party Transactions

Prior to August 22, 2002, Equistar was owned 41% by Lyondell, 29.5% by Millennium and 29.5% by Occidental. On August 22, 2002, Lyondell completed the purchase of Occidental's interest in Equistar, increasing its ownership interest in Equistar to 70.5%. As a result of this transaction, Occidental has two representatives on Lyondell's board of directors and, as of December 31, 2002, Occidental owned approximately 22% of Lyondell. In view of Occidental's ownership position with Lyondell, which owns 70.5% of Equistar, Occidental's transactions with Equistar subsequent to August 22, 2002 will continue to be reported as related party transactions in Equistar's Consolidated Statements of Income and Consolidated Balance Sheets.

Product Transactions with Lyondell—Lyondell purchases ethylene, propylene and benzene at market-related prices from Equistar under various agreements expiring in 2013 and 2014. With the exception of one pre-existing supply agreement for a product, expiring in 2015, Lyondell is required, under the agreements, to purchase 100% of its ethylene, propylene and benzene requirements for its Channelview and Bayport, Texas facilities from Equistar. Lyondell licenses MTBE technology to Equistar, and purchases a significant portion of the MTBE produced by Equistar at one of its two Channelview units at market-related prices.

Equistar acts as sales agent for the methanol products of Lyondell Methanol Company, L.P. ("LMC"), which was wholly owned by Lyondell effective May 1, 2002. The natural gas for LMC's plant is purchased by Equistar as agent for LMC under Equistar master agreements with various third party suppliers. Equistar provides operating and other services for LMC under the terms of existing agreements that were assumed by Equistar from Lyondell, including the lease to LMC by Equistar of the real property on which LMC's methanol plant is located. Pursuant to the terms of those agreements, LMC pays Equistar a management fee and reimburses certain expenses of Equistar at cost.

Product Transactions with Millennium—Equistar sells ethylene to Millennium at market-related prices pursuant to an agreement entered into in connection with the formation of Equistar. Under this agreement, Millennium is required to purchase 100% of its ethylene requirements for its LaPorte, Texas facility from Equistar. The contract expired December 1, 2002 and is renewed annually. The contract was renewed through December 31, 2003.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Also, under an agreement entered into in connection with the formation of Equistar, Equistar is required to purchase 100% of its vinyl acetate monomer raw material requirements at market-related prices from Millennium for its LaPorte, Texas, Clinton, Iowa and Morris, Illinois plants for the production of ethylene vinyl acetate products at those locations. This contract also expired December 31, 2002 and was renewed through December 31, 2003.

Product Transactions with Occidental—In connection with the contribution of Occidental assets to Equistar, Equistar and Occidental entered into a long-term agreement for Equistar to supply 100% of the ethylene requirements for Occidental's U.S. manufacturing plants at market-related prices. The ethylene is exclusively for internal use in production at these plants, less any quantities up to 250 million pounds per year tolled in accordance with the provisions of the agreement. Upon three years notice from either party, sales may be "phased down" over a period not less than five years. No phase down may commence before January 1, 2009. Therefore, the annual required minimum cannot decline to zero prior to December 31, 2013, unless certain specified force majeure events occur. In addition to ethylene, Equistar sells methanol, ethers and glycols to Occidental. Also, from time to time, Equistar has entered into over-the-counter derivatives, primarily price swap contracts, for crude oil with Occidental to help manage its exposure to commodity price risk with respect to crude oil-related raw material purchases. See Note 12. Equistar also purchases various other products from Occidental at market-related prices.

Product Transactions with Oxy Vinyls, LP—Occidental owns 76% of Oxy Vinyls, LP ("Oxy Vinyls"), a joint venture partnership. Equistar sells ethylene to Oxy Vinyls for Oxy Vinyls' LaPorte, Texas facility at market-related prices pursuant to an agreement that expires December 31, 2003.

Transactions with LYONDELL-CITGO Refining LP—Substantially all of Lyondell's rights and obligations under the terms of its product sales and raw material purchase agreements with LYONDELL-CITGO Refining LP ("LCR"), a joint venture investment of Lyondell, have been assigned to Equistar. Accordingly, certain olefins by-products are sold by Equistar to LCR for processing into gasoline and certain refinery products are sold by LCR to Equistar as raw materials. Equistar also has assumed certain processing arrangements as well as storage obligations between Lyondell and LCR and provides certain marketing services for LCR. All of the agreements between LCR and Equistar are on terms generally representative of prevailing market prices.

Shared Services Agreement with Lyondell—Under a shared services agreement, Lyondell provides office space and various services to Equistar including information technology, human resources, sales and marketing, raw material supply, supply chain, health, safety and environmental, engineering, research and development, facility services, legal, accounting, treasury, internal audit and tax. Lyondell charges Equistar for its share of the cost of such services. Direct costs, incurred exclusively for Equistar, also are charged to Equistar. Costs related to a limited number of shared services, primarily engineering, continue to be incurred by Equistar. In such cases, Equistar charges Lyondell for its share of such costs.

Shared Services and Shared-Site Agreements with Millennium Petrochemicals—Equistar and Millennium Petrochemicals have agreements under which Equistar provides utilities, fuel streams and office space to Millennium Petrochemicals. In addition, Millennium Petrochemicals provides Equistar with certain operational services, including utilities, as well as barge dock access and related services.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Related party transactions are summarized as follows:

<u>Millions of dollars</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
<u>Equistar billed related parties for:</u>			
Sales of products and processing services:			
Lyondell	\$ 459	\$ 405	\$ 572
Occidental Chemical	358	441	558
LCR	340	377	438
Millennium Petrochemicals	43	55	90
Oxy Vinyls	42	48	67
Shared services and shared site agreements:			
LCR	4	3	2
Lyondell/LMC	16	18	26
Millennium Petrochemicals	9	17	24
Gas purchased for Lyondell/LMC	76	86	85
<u>Related parties billed Equistar for:</u>			
Purchases of products:			
LCR	\$ 218	\$ 203	\$ 264
Millennium Petrochemicals	10	15	16
Lyondell	1	4	2
Occidental Chemical	1	1	2
Shared services, transition and lease agreements:			
Lyondell	134	135	111
Millennium Petrochemicals	16	19	22
Occidental Chemical	7	6	6
LCR	1	2	--

6. Accounts Receivable

Equistar sells its products primarily to other chemical manufacturers in the petrochemicals and polymers industries. Equistar performs ongoing credit evaluations of its customers' financial condition and, in certain circumstances, requires letters of credit from them. The Partnership's allowance for doubtful accounts, which is reflected in the accompanying Consolidated Balance Sheets as a reduction of accounts receivable, totaled \$16 million and \$14 million at December 31, 2002 and 2001, respectively.

During October 2002, Equistar entered into an agreement with an unaffiliated issuer of receivables-backed commercial paper under which Equistar sold accounts receivable and received cash proceeds of \$100 million. Under the terms of the agreement, Equistar agreed to sell, on an ongoing basis and without recourse, designated new accounts receivable as existing receivables are collected. The agreement has annual renewal provisions for up to three years and is subject to maintaining at least a specified debt rating. Equistar is seeking an amendment to reduce the minimum required debt ratings and expects the amendment to be effective prior to March 31, 2003. Upon entering into the agreement, the commitment under the revolving credit facility was reduced by \$50 million. See Note 10.

At December 31, 2002, the balance of Equistar's accounts receivable sold under this arrangement was \$81 million. Increases and decreases in the amount sold are reflected in operating cash flows in the Consolidated Statements of

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Cash Flows. Fees related to the sales are included in "Other income, net" in the Consolidated Statements of Income. During 2001, Equistar terminated a similar agreement.

7. Inventories

Inventories consisted of the following components at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Finished goods	\$ 233	\$ 243
Work-in-process	12	12
Raw materials	95	104
Materials and supplies	84	89
Total inventories	<u>\$ 424</u>	<u>\$ 448</u>

The excess of the current cost of inventories over book value was approximately \$55 million at December 31, 2002.

8. Property, Plant and Equipment and Other Assets

The components of property, plant and equipment, at cost, and the related accumulated depreciation were as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Land	\$ 80	\$ 79
Manufacturing facilities and equipment	6,037	5,929
Construction in progress	60	92
Total property, plant and equipment	6,177	6,100
Less accumulated depreciation	(2,612)	(2,395)
Property, plant and equipment, net	<u>\$ 3,565</u>	<u>\$ 3,705</u>

Equistar did not capitalize any interest during 2002, 2001 and 2000 with respect to construction projects.

The components of other assets, at cost, and the related accumulated amortization were as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>			<u>2001</u>		
	<u>Cost</u>	<u>Accumulated Amortization</u>	<u>Net</u>	<u>Cost</u>	<u>Accumulated Amortization</u>	<u>Net</u>
Intangible assets:						
Turnaround costs	\$ 193	\$ (94)	\$ 99	\$ 151	\$ (81)	\$ 70
Software costs	150	(66)	84	152	(55)	97
Debt issuance costs	43	(13)	30	41	(7)	34
Catalyst costs	23	(11)	12	11	(4)	7
Other	58	(17)	41	37	(9)	28
Total intangible assets	<u>\$ 467</u>	<u>\$ (201)</u>	266	<u>\$ 392</u>	<u>\$ (156)</u>	236
Pension asset			21			22
Other			28			19
Total other assets			<u>\$ 315</u>			<u>\$ 277</u>

Scheduled amortization of these intangible assets for the next five years is estimated at \$56 million in 2003, \$56 million in 2004, \$57 million in 2005, \$57 million in 2006 and \$57 million in 2007.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Depreciation and amortization expense is summarized as follows:

<u>Millions of dollars</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Property, plant and equipment	\$ 242	\$ 237	\$ 229
Goodwill	--	33	33
Turnaround costs	24	20	24
Software costs	15	12	13
Other	17	17	9
Total depreciation and amortization	<u>\$ 298</u>	<u>\$ 319</u>	<u>\$ 308</u>

In addition, amortization of debt issuance costs of \$7 million, \$2 million and \$2 million in 2002, 2001 and 2000, respectively, is included in interest expense in the Consolidated Statements of Income.

9. Accrued Liabilities

Accrued liabilities consisted of the following components at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Taxes other than income	\$ 65	\$ 67
Interest	65	68
Payroll and benefits	42	49
Contractual obligations	34	30
Other	17	13
Total accrued liabilities	<u>\$ 223</u>	<u>\$ 227</u>

10. Long-Term Debt

During October 2002, Equistar entered into an agreement to sell certain accounts receivable and received cash proceeds of \$100 million. See Note 6. As a result, the commitment under its revolving credit facility was reduced by \$50 million, to \$450 million, in accordance with the terms of the revolving credit facility and would not be restored if the receivables agreement were terminated. Equistar used the \$100 million proceeds to reduce borrowing under the revolving credit facility and for general corporate purposes. The revolving credit facility was undrawn at December 31, 2002. Amounts available under the revolving credit facility are reduced to the extent of certain outstanding letters of credit provided under the credit facility, which totaled \$16 million as of December 31, 2002.

In March 2002, Equistar obtained amendments to its credit facility making certain financial ratio requirements less restrictive, making the covenant limiting acquisitions more restrictive and adding a covenant limiting certain non-regulatory capital expenditures. As a result of the amendment, the interest rate on the credit facility was increased by 0.5% per annum.

In August 2001, Equistar completed a \$1.5 billion debt refinancing. The refinancing included a credit facility consisting of a \$500 million secured revolving credit facility maturing in August 2006 and a \$300 million secured term loan, maturing in August 2007, with scheduled quarterly amortization payments, beginning December 31, 2001. The refinancing also included the issuance of \$700 million of new unsecured 10.125% senior notes maturing in August 2008. The 10.125% senior notes rank *pari passu* with existing Equistar notes. Certain financial ratio requirements were modified in the refinancing to make them less restrictive.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Borrowing under the revolving credit facility generally bears interest based on a margin over, at Equistar's option, LIBOR or a base rate. The sum of the applicable margin plus a facility fee varies between 1.5% and 2.5%, in the case of LIBOR loans, and 0.5% and 1.5%, in the case of base rate loans, depending on Equistar's ratio of debt to EBITDA, as defined in the credit facility. The credit facility is secured by a lien on substantially all of Equistar's personal property, including accounts receivable, inventory, other personal property as well as a portion of its real property.

The August 2001 refinancing replaced a five-year, \$1.25 billion credit facility that would have expired November 2002. Borrowing under the facility was \$820 million at December 31, 2000. Millennium America Inc., a subsidiary of Millennium, provided limited guarantees with respect to the payment of principal and interest on a total of \$750 million principal amount of indebtedness under the \$1.25 billion revolving credit facility. As a result of the refinancing, the related guarantees have been terminated.

The credit facility and the indenture governing Equistar's 10.125% senior notes contain covenants that, subject to certain exceptions, restrict sale and leaseback transactions, lien incurrence, debt incurrence, sales of assets, investments, non-regulatory capital expenditures, certain payments, and mergers. In addition, the bank credit facility requires Equistar to maintain specified financial ratios. The breach of these covenants could permit the lenders to declare the loans immediately payable and could permit the lenders under Equistar's credit facility to terminate future lending commitments.

As a result of continuing adverse conditions in the industry, in March 2003, Equistar obtained amendments to its credit facility to provide additional financial flexibility by easing certain financial ratio requirements.

Long-term debt consisted of the following at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Bank credit facility:		
Revolving credit facility due 2006	\$ --	\$ --
Term loan due 2007	296	299
Other debt obligations:		
Medium-term notes due 2003-2005	30	31
9.125% Notes due 2002	--	100
8.50% Notes due 2004	300	300
6.50% Notes due 2006	150	150
10.125% Senior Notes due 2008	700	700
8.75% Notes due 2009	599	598
7.55% Debentures due 2026	150	150
Other	3	9
Total long-term debt	<u>2,228</u>	<u>2,337</u>
Less current maturities	32	104
Total long-term debt, net	<u>\$ 2,196</u>	<u>\$ 2,233</u>

The term loan due 2007 generally bears interest at a rate equal to LIBOR plus 3% or the base rate plus 2%, at Equistar's option. Borrowing under the term loan had a weighted average interest rate of 5.25% and 6.26% during 2002 and 2001, respectively. The medium-term notes had a weighted average interest rate of 9.75% and 9.75% at December 31, 2002 and 2001, respectively. The 8.75% notes have a face amount of \$600 million and are shown net of unamortized discount.

The medium-term notes, the 9.125% notes, the 6.5% notes and the 7.55% debentures were assumed by Equistar from Lyondell when Equistar was formed in 1997. As between Equistar and Lyondell, Equistar is primarily liable for this debt. Lyondell remains a co-obligor for the medium-term notes and certain events involving only Lyondell

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

could give rise to events of default under those notes, permitting the obligations to be accelerated. Under certain limited circumstances, the holders of the medium-term notes have the right to require repurchase of the notes. Following amendments to the indentures for the 6.5% notes and the 7.55% debentures in November 2000, Lyondell remains a guarantor of that debt. The 9.125% notes were repaid in 2002. The consolidated financial statements of Lyondell are filed as an exhibit to Equistar's Annual Report on Form 10-K for the year ended December 31, 2002.

Aggregate maturities of long-term debt during the next five years are \$32 million in 2003; \$303 million in 2004; \$4 million in 2005; \$153 million in 2006; \$284 million in 2007 and \$1.5 billion thereafter.

11. Lease Commitments

Equistar leases various facilities and equipment under noncancelable lease arrangements for various periods. Operating leases include leases of railcars used in the distribution of products in Equistar's business. During 2002, Equistar leased certain of these railcars, under three operating leases, from unaffiliated entities established for the purpose of serving as lessors with respect to these leases.

One of these three leases remains outstanding at December 31, 2002. This lease includes an option for Equistar to purchase the railcars during the lease term. If Equistar does not exercise the purchase option, the affected railcars will be sold upon termination of the lease. In the event the sales proceeds are less than the related guaranteed residual value, Equistar will pay the difference to the lessor. The guaranteed residual value, which is not included in future minimum lease payments in the table below, was \$83 million at December 31, 2002.

The second of these three leases terminated in December 2002, and Equistar entered into a new lease arrangement with another lessor. The new lease covered a substantial portion of the subject railcars, and Equistar purchased the remaining railcars for \$10 million. The third of these leases terminated in November 2002, and Equistar purchased the subject railcars for \$37 million.

At December 31, 2002, future minimum lease payments relating to noncancelable operating leases, including railcar leases, with lease terms in excess of one year were as follows:

<u>Millions of dollars</u>	<u>Minimum Lease Payments</u>
2003	\$ 73
2004	65
2005	53
2006	41
2007	35
Thereafter	287
Total minimum lease payments	<u>\$ 554</u>

Operating lease net rental expense was \$125 million, \$110 million and \$115 million for the years ending December 31, 2002, 2001 and 2000, respectively. Net rental expense in 2002 included the amortization of \$34 million of prepayments, related to the first and second railcar leases described above, over the remaining lease terms.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

12. Financial Instruments and Derivatives

During 2000, Equistar entered into over-the-counter derivatives, primarily price swap contracts, related to crude oil with Occidental Energy Marketing, Inc., a subsidiary of Occidental Chemical, to help manage its exposure to commodity price risk with respect to crude oil-related raw material purchases. At December 31, 2000, price swap contracts covering 5.1 million barrels of crude oil were outstanding. The carrying value and fair market value of these derivative instruments at December 31, 2000 represented a liability of \$13 million, which was based on quoted market prices. The resulting loss from these hedges of anticipated raw material purchases was deferred on the consolidated balance sheet. On January 1, 2001, in accordance with the transition provisions of SFAS No. 133, Equistar reclassified the deferred loss of \$13 million to accumulated other comprehensive income as a transition adjustment, representing the cumulative effect of a change in accounting principle. The transition adjustment was reclassified to the Consolidated Statement of Income during the period January through July 2001 as the related raw material purchases occurred.

During 2001, Equistar entered into additional price swap contracts covering 7.2 million barrels of crude oil that primarily matured from July 2001 through December 2001. In the third quarter 2001, outstanding price swap contracts, covering 4.1 million barrels of crude oil that primarily matured from October 2001 through December 2001, were effectively terminated. The termination resulted in realization of a gain of nearly \$9 million, which was recognized in the fourth quarter 2001 as the related forecasted transactions occurred. There were no outstanding price swap contracts at December 31, 2002 and December 31, 2001.

The following table summarizes activity included in accumulated other comprehensive income ("AOCI") related to the fair value of derivative instruments for the year ended December 31, 2001:

<u>Millions of dollars</u>	<u>2001</u>
Gain (loss):	
Balance at beginning of period	\$ --
January 1, 2001 transition adjustment – reclassification of December 31, 2000 deferred loss	(13)
Net gains on derivative instruments	35
Reclassification of gains on derivative instruments to earnings	(22)
Net change included in AOCI for the period	--
Net gain on derivative instruments included in AOCI at December 31, 2001	<u>\$ --</u>

The fair value of all nonderivative financial instruments included in current assets and current liabilities, including cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximated their carrying value due to their short maturity. Based on the borrowing rates currently available to Equistar for debt with terms and average maturities similar to Equistar's debt portfolio, the fair value of Equistar's long-term debt, including amounts due within one year, was approximately \$2.0 billion and \$2.3 billion at December 31, 2002 and 2001, respectively. Equistar estimates the fair value of its residual value guarantee under a railcar lease (see Note 11) is not significant due to the low probability of future payments under the guarantee provisions.

Equistar is exposed to credit risk related to its financial instruments in the event of nonperformance by the counterparties. Equistar does not generally require collateral or other security to support these financial instruments. The counterparties to these transactions are major institutions deemed creditworthy by Equistar. Equistar does not anticipate nonperformance by the counterparties.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

13. Pension and Other Postretirement Benefits

All full-time regular employees are covered by defined benefit pension plans sponsored by Equistar. In connection with the formation of Equistar, no pension assets or obligations were contributed to Equistar, with the exception of union represented plans contributed by Occidental and Millennium.

Retirement benefits are based upon years of service and the employee's highest three consecutive years of compensation during the last ten years of service. Equistar accrues pension costs based upon an actuarial valuation of the liabilities and funds the plans through periodic contributions to pension trust funds. Equistar also has unfunded supplemental nonqualified retirement plans, which provide pension benefits for certain employees in excess of the tax qualified plans' limits. In addition, Equistar sponsors unfunded postretirement benefit plans other than pensions, which provide medical and life insurance benefits. The postretirement medical plans are contributory while the life insurance plans are, generally, noncontributory. The life insurance benefits will no longer be provided to employees retiring after July 1, 2002.

The following table provides a reconciliation of benefit obligations, plan assets and the funded status of these plans:

Millions of dollars	Pension Benefits		Other Postretirement Benefits	
	2002	2001	2002	2001
Change in benefit obligation:				
Benefit obligation, January 1	\$ 147	\$ 120	\$ 112	\$ 92
Service cost	16	16	2	2
Interest cost	11	10	7	6
Plan amendments	(2)	--	(13)	29
Actuarial loss (gain)	8	12	2	(14)
Benefits paid	(10)	(11)	(2)	(3)
Benefit obligation, December 31	<u>170</u>	<u>147</u>	<u>108</u>	<u>112</u>
Change in plan assets:				
Fair value of plan assets, January 1	107	117	--	--
Actual return on plan assets	(13)	(6)	--	--
Partnership contributions	18	7	2	3
Benefits paid	(10)	(11)	(2)	(3)
Fair value of plan assets, December 31	<u>102</u>	<u>107</u>	<u>--</u>	<u>--</u>
Funded status	(68)	(40)	(108)	(112)
Unrecognized actuarial and investment loss	76	48	7	5
Unrecognized prior service cost	(2)	--	14	29
Net amount recognized	<u>\$ 6</u>	<u>\$ 8</u>	<u>\$ (87)</u>	<u>\$ (78)</u>
Amounts recognized in the Consolidated Balance Sheet consist of:				
Prepaid benefit cost	\$ 21	\$ 22	\$ --	\$ --
Accrued benefit liability	(51)	(33)	(87)	(78)
Accumulated other comprehensive income	36	19	--	--
Net amount recognized	<u>\$ 6</u>	<u>\$ 8</u>	<u>\$ (87)</u>	<u>\$ (78)</u>

The decrease in other postretirement benefit obligations due to plan amendments in 2002 primarily resulted from discontinuing life insurance benefits for employees retiring after July 1, 2002. The increase in other postretirement benefit obligations due to plan amendments in 2001 resulted from a change in the medical plan that increased Equistar's minimum contribution level per employee by 25%.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Pension plans with projected benefit obligations in excess of the fair value of assets are summarized as follows at December 31:

	<u>2002</u>	<u>2001</u>
Projected benefit obligation	\$ 170	\$ 129
Fair value of assets	102	81

Pension plans with accumulated benefit obligations in excess of the fair value of assets are summarized as follows at December 31:

	<u>2002</u>	<u>2001</u>
Accumulated benefit obligation	\$ 123	\$ 106
Fair value of assets	81	81

Net periodic pension and other postretirement benefit costs included the following components:

<u>Millions of dollars</u>	<u>Pension Benefits</u>			<u>Other Postretirement Benefits</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Components of net periodic benefit cost:						
Service cost	\$ 16	\$ 16	\$ 17	\$ 2	\$ 2	\$ 2
Interest cost	11	10	9	7	6	6
Actual loss on plan assets	13	6	3	--	--	--
Less-unrecognized loss	<u>(24)</u>	<u>(17)</u>	<u>(11)</u>	--	--	--
Recognized gain on plan assets	<u>(11)</u>	<u>(11)</u>	<u>(8)</u>	--	--	--
Amortization of actuarial and investment loss	4	2	--	--	--	1
Prior service cost	--	--	--	2	--	--
Net effect of curtailments, settlements and special termination benefits	--	3	(1)	--	2	1
Net periodic benefit cost	<u>\$ 20</u>	<u>\$ 20</u>	<u>\$ 17</u>	<u>\$ 11</u>	<u>\$ 10</u>	<u>\$ 10</u>

The assumptions used in determining the net pension cost and the net pension liability were as follows at December 31:

	<u>Pension Benefits</u>			<u>Other Postretirement Benefits</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Weighted-average assumptions as of December 31:						
Discount rate	6.50%	7.00%	7.50%	6.50%	7.00%	7.50%
Expected return on plan assets	9.50%	9.50%	9.50%	--	--	--
Rate of compensation increase	4.50%	4.50%	4.50%	--	4.50%	4.50%

The assumed annual rate of increase in the per capita cost of covered health care benefits as of December 31, 2002 was 10.0% for 2003 through 2004, 7.0% for 2005 through 2007 and 5.0% thereafter. The health care cost trend rate assumption does not have a significant effect on the amounts reported due to limits on Equistar's maximum contribution level under the medical plan. To illustrate, increasing or decreasing the assumed health care cost trend rates by one percentage point in each year would change the accumulated postretirement benefit liability as of December 31, 2002 by less than \$1 million and would not have a material effect on the aggregate service and interest cost components of the net periodic postretirement benefit cost for the year then ended.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Equistar also maintains voluntary defined contribution savings plans for eligible employees. Contributions to the plans by Equistar were \$13 million, \$16 million and \$17 million for the years ended December 31, 2002, 2001 and 2000, respectively.

14. Commitments and Contingencies

Commitments—Equistar has various purchase commitments for materials, supplies and services incident to the ordinary conduct of business, generally for quantities required for Equistar's businesses and at prevailing market prices. See also Note 5, describing related party commitments.

Equistar is party to various unconditional purchase obligation contracts as a purchaser for products and services, principally for steam and power. At December 31, 2002, future minimum payments under those contracts with noncancelable contract terms in excess of one year and fixed minimum payments were as follows:

<u>Millions of dollars</u>	
2003	\$ 164
2004	168
2005	169
2006	157
2007	151
Thereafter through 2023	1,749
Total minimum contract payments	<u>\$ 2,558</u>

Equistar's total purchases under these agreements were \$230 million for the year ended December 31, 2002

Leased Facility—The Lake Charles facility has been idled since the first quarter of 2001. The facility and land, which are included in property, plant and equipment, at a net book value of \$160 million, are leased from an affiliate of Occidental under a lease that expires in May 2003. The parties are investigating alternatives related to the facility and land. Management believes that the resolution of these alternatives will not have a material adverse effect on the financial position, liquidity or results of operations of Equistar.

Indemnification Arrangements—Lyondell, Millennium Petrochemicals and Occidental and certain of its subsidiaries have each agreed to provide certain indemnifications to Equistar with respect to the petrochemicals and polymers businesses they each contributed. In addition, Equistar has agreed to assume third party claims that are related to certain contingent liabilities arising prior to the contribution transactions that are asserted prior to December 1, 2004 as to Lyondell and Millennium Petrochemicals, and May 15, 2005 as to Occidental, to the extent the aggregate thereof does not exceed \$7 million for each entity, subject to certain terms of the respective asset contribution agreements. From formation through December 31, 2002, Equistar had incurred a total of \$20 million for these uninsured claims and liabilities. Lyondell, Millennium and Occidental each remain liable under these indemnification arrangements to the same extent following Lyondell's acquisition of Occidental's interest in Equistar as they were before.

Environmental Remediation—Equistar's accrued liability for environmental matters as of December 31, 2002 was \$2 million and related to the Port Arthur facility, which was permanently shut down in February 2001. In the opinion of management, there is currently no material estimable range of loss in excess of the amounts recorded for environmental remediation.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Clean Air Act— The eight-county Houston/Galveston region has been designated a severe non-attainment area for ozone by the U.S. Environmental Protection Agency (“EPA”). Emission reduction controls for nitrogen oxides (“NOx”) must be installed at each of Equistar’s six plants located in the Houston/Galveston region during the next several years. Recently adopted revisions by the regulatory agencies changed the required NOx reduction levels from 90% to 80%. Compliance with the previously proposed 90% reduction standards would have resulted in increased capital investment, estimated at between \$200 million and \$260 million, before the 2007 deadline, as well as higher annual operating costs for Equistar. Under the revised 80% standard, Equistar estimates that capital expenditures would decrease to between \$165 million and \$200 million. However, the savings from this revision could be offset by the costs of stricter proposed controls over highly reactive, volatile organic compounds, or HRVOCs. Equistar is still assessing the impact of the proposed HRVOC regulations and there can be no guarantee as to the ultimate capital cost of implementing any final plan developed to ensure ozone attainment by the 2007 deadline. The timing and amount of these expenditures are also subject to regulatory and other uncertainties, as well as obtaining the necessary permits and approvals.

In the United States, the Clean Air Act Amendments of 1990 set minimum levels for oxygenates, such as MTBE, in gasoline sold in areas not meeting specified air quality standards. However, the presence of MTBE in some water supplies in California and other states due to gasoline leaking from underground storage tanks and in surface water from recreational water craft has led to public concern about the use of MTBE. Certain federal and state governmental initiatives in the U.S. have sought either to rescind the oxygen requirement for reformulated gasoline or to restrict or ban the use of MTBE. Equistar’s MTBE sales represented approximately 3% of its total 2002 revenues. The U.S. House of Representatives and the U.S. Senate each passed versions of an omnibus energy bill during 2001 and 2002, respectively. The Senate version of the energy bill would have resulted in a ban on the use of MTBE. The two energy bills were not reconciled during the conference process and an omnibus energy bill was not passed during 2002.

Both the U.S. House of Representatives and the U.S. Senate are expected to pursue an energy bill during the 2003/2004 legislative cycle. If this happens, it is likely that fuel content, including MTBE use, will be a subject of legislative debate. Factors which could be considered in this debate include the impact on gasoline price and supply and the potential for degradation of air quality.

At the state level, a number of states have legislated future MTBE bans. Of these, a number are mid-West states that use ethanol as the oxygenate of choice. Bans in these states should not have an impact on MTBE demand. However, Connecticut, California and New York have bans of MTBE in place effective October 1, 2003, January 1, 2004, and January 1, 2004, respectively. Equistar estimates that California represents 34% of the U.S. MTBE industry demand and 20% of the worldwide MTBE industry demand, while Connecticut and New York combined represent 12% of the U.S. MTBE industry demand and 7% of the worldwide MTBE industry demand.

At this time, Equistar cannot predict the impact that these initiatives will have on MTBE margins or volumes during 2003. However, several major oil companies have announced plans, beginning in 2003, to discontinue the use of MTBE in gasoline produced for California markets. Equistar estimates that the California-market MTBE volumes of these companies account for an estimated 18% of U.S. MTBE industry demand and 10% of worldwide MTBE industry demand. Equistar intends to continue marketing MTBE in the U.S. However, should it become necessary or desirable to reduce MTBE production, Equistar would need to convert raw materials used in MTBE to production of other products. It may be desirable to make capital expenditures to add the flexibility to produce alternative gasoline blending components. The profit margins on these alternatives are likely to be lower than those historically realized on MTBE.

General—Equistar is involved in various lawsuits and proceedings. Subject to the uncertainty inherent in all litigation, management believes the resolution of these proceedings, or any liability arising from the matters discussed in this note, will not have a material adverse effect on the financial position, liquidity or results of operations of Equistar.

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

15. Supplemental Cash Flow Information

Supplemental cash flow information is summarized as follows for the periods presented:

<u>Millions of dollars</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Cash paid for interest	<u>\$ 200</u>	<u>\$ 171</u>	<u>\$ 180</u>

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

16. Segment Information and Related Information

Equistar operates in two reportable segments, petrochemicals and polymers (see Note 1). The accounting policies of the segments are the same as those described in "Summary of Significant Accounting Policies" (see Note 2). No unaffiliated customer accounted for 10% or more of sales during any year in the three-year period ended December 31, 2002.

Summarized financial information concerning Equistar's reportable segments is shown in the following table. Intersegment sales between the petrochemicals and polymers segments were based on current market prices.

<u>Millions of dollars</u>	<u>Petrochemicals</u>	<u>Polymers</u>	<u>Unallocated</u>	<u>Eliminations</u>	<u>Consolidated</u>
For the year ended December 31, 2002:					
Sales and other					
operating revenues:					
Customers	\$ 3,669	\$ 1,868	\$ --	\$ --	\$ 5,537
Intersegment	1,288	--	--	(1,288)	--
	<u>4,957</u>	<u>1,868</u>	<u>--</u>	<u>(1,288)</u>	<u>5,537</u>
Operating income (loss)	146	(74)	(116)	--	(44)
Total assets	3,410	1,438	204	--	5,052
Capital expenditures	58	59	1	--	118
Depreciation and amortization expense	217	58	23	--	298
For the year ended December 31, 2001:					
Sales and other					
Operating revenues:					
Customers	\$ 3,929	\$ 1,980	\$ --	\$ --	\$ 5,909
Intersegment	1,455	--	--	(1,455)	--
	<u>5,384</u>	<u>1,980</u>	<u>--</u>	<u>(1,455)</u>	<u>5,909</u>
Operating income (loss)	275	(186)	(188)	--	(99)
Total assets	3,474	1,400	1,464	--	6,338
Capital expenditures	84	24	2	--	110
Depreciation and Amortization expense	204	58	57	--	319
For the year ended December 31, 2000:					
Sales and other					
Operating revenues:					
Customers	\$ 5,144	\$ 2,351	\$ --	\$ --	\$ 7,495
Intersegment	1,887	--	--	(1,887)	--
	<u>7,031</u>	<u>2,351</u>	<u>--</u>	<u>(1,887)</u>	<u>7,495</u>
Operating income (loss)	694	(185)	(175)	--	334
Total assets	3,705	1,575	1,334	--	6,614
Capital expenditures	79	46	6	--	131
Depreciation and amortization expense	199	55	54	--	308

EQUISTAR CHEMICALS, LP

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The following table presents the details of “Operating income (loss)” as presented above in the “Unallocated” column for the years ended December 31, 2002, 2001 and 2000.

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Items not allocated to petrochemicals and polymers:			
Principally general and administrative expenses	\$ (116)	\$ (166)	\$ (175)
Facility closing costs	--	(22)	--
Operating income (loss)	<u>\$ (116)</u>	<u>\$ (188)</u>	<u>\$ (175)</u>

The following table presents the details of “Total assets” as presented above in the “Unallocated” column as of December 31, for the years indicated:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Cash and cash equivalents	\$ 27	\$ 202	\$ 18
Accounts receivable—trade and related parties	--	17	16
Prepaid expenses and other current assets	22	20	17
Property, plant and equipment, net	18	23	35
Goodwill, net	--	1,053	1,086
Other assets, net	137	149	162
Total assets	<u>\$ 204</u>	<u>\$ 1,464</u>	<u>\$ 1,334</u>

Report of Independent Accountants

To the Partnership Governance Committee
of LYONDELL-CITGO Refining LP

In our opinion, the accompanying balance sheets and related statements of income, Partners' capital and cash flows present fairly, in all material respects, the financial position of LYONDELL-CITGO Refining LP (the Partnership) at December 31, 2002 and December 31, 2001, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2002 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Partnership's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

PRICEWATERHOUSECOOPERS LLP

Houston, Texas
February 14, 2003

LYONDELL-CITGO REFINING LP

STATEMENTS OF INCOME

<u>Millions of dollars</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Sales and other operating revenues	\$ 3,392	\$ 3,284	\$ 4,075
Operating costs and expenses:			
Cost of sales:			
Crude oil and feedstock	2,546	2,379	3,246
Operating and other expenses	547	588	580
Selling, general and administrative expenses	53	61	60
	<u>3,146</u>	<u>3,028</u>	<u>3,886</u>
Operating income	246	256	189
Interest expense	(32)	(52)	(63)
Interest income	--	1	2
	<u>214</u>	<u>205</u>	<u>128</u>
Income before extraordinary items	214	205	128
Extraordinary loss on extinguishment of debt	(1)	(2)	--
Net Income	<u>\$ 213</u>	<u>\$ 203</u>	<u>\$ 128</u>

See Notes to Financial Statements.

LYONDELL-CITGO REFINING LP

BALANCE SHEETS

<u>Millions of dollars</u>	December 31,	
	2002	2001
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 101	\$ 3
Accounts receivable:		
Trade, net	47	31
Related parties and affiliates	106	62
Inventories	93	130
Prepaid expenses and other current assets	10	4
Total current assets	357	230
Property, plant and equipment	2,392	2,322
Construction projects in progress	159	177
Accumulated depreciation and amortization	(1,239)	(1,156)
	1,312	1,343
Deferred charges and other assets	88	97
Total assets	\$ 1,757	\$ 1,670
LIABILITIES AND PARTNERS' CAPITAL		
Current liabilities:		
Accounts payable:		
Trade	\$ 69	\$ 117
Related parties and affiliates	212	98
Distribution payable to Lyondell Partners	106	17
Distribution payable to CITGO Partners	75	12
Loan payable to bank	--	50
Taxes, payroll and other liabilities	52	91
Total current liabilities	514	385
Long-term debt	450	450
Loan payable to Lyondell Partners	229	229
Loan payable to CITGO Partners	35	35
Pension, postretirement benefit and other liabilities	126	79
Total long-term liabilities	840	793
Commitments and contingencies		
Partners' capital:		
Partners' accounts	432	507
Accumulated other comprehensive loss	(29)	(15)
Total partners' capital	403	492
Total liabilities and partners' capital	\$ 1,757	\$ 1,670

See Notes to Financial Statements.

LYONDELL-CITGO REFINING LP

STATEMENTS OF CASH FLOWS

<u>Millions of dollars</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Cash flows from operating activities:			
Net income	\$ 213	\$ 203	\$ 128
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	116	108	112
Net loss (gain) on disposition of assets	1	(3)	1
Extraordinary items	1	2	--
Changes in assets and liabilities that provided (used) cash:			
Accounts receivable	(59)	113	(62)
Inventories	37	(40)	(43)
Accounts payable	70	(88)	97
Prepaid expenses and other current assets	(5)	7	10
Other assets and liabilities	(13)	(22)	(21)
Cash provided by operating activities	<u>361</u>	<u>280</u>	<u>222</u>
Cash flows from investing activities:			
Expenditures for property, plant and equipment	(65)	(109)	(60)
Proceeds from sale of property, plant and equipment	2	8	--
Proceeds from sales tax refund related to capital expenditures	--	5	--
Other	(3)	--	(1)
Cash used in investing activities	<u>(66)</u>	<u>(96)</u>	<u>(61)</u>
Cash flows from financing activities:			
Proceeds from (repayment of) bank loan	(50)	30	20
Contributions from Lyondell Partners	46	45	25
Contributions from CITGO Partners	32	32	18
Distributions to Lyondell Partners	(126)	(165)	(144)
Distributions to CITGO Partners	(89)	(116)	(101)
Payment of debt issuance costs	(10)	(8)	--
Repayment of current maturities of long-term debt	--	--	(450)
Proceeds from PDVSA loan	--	--	439
Proceeds from Lyondell Partners' loans	--	--	4
Proceeds from CITGO Partners' loans	--	--	13
Cash used in financing activities	<u>(197)</u>	<u>(182)</u>	<u>(176)</u>
Increase (decrease) in cash and cash equivalents	98	2	(15)
Cash and cash equivalents at beginning of period	3	1	16
Cash and cash equivalents at end of period	<u>\$ 101</u>	<u>\$ 3</u>	<u>\$ 1</u>

See Notes to Financial Statements.

LYONDELL-CITGO REFINING LP
STATEMENTS OF PARTNERS' CAPITAL

<u>Millions of dollars</u>	Partners' Accounts			Accumulated Other Comprehensive Income (Loss)	Comprehensive Income (Loss)
	Lyondell Partners	CITGO Partners	Total		
Balance at January 1, 2000	\$ 20	\$ 536	\$ 556	\$ --	\$ --
Net income	86	42	128	--	128
Cash contributions	25	18	43	--	--
Distributions to Partners	(128)	(91)	(219)	--	--
Comprehensive income					<u>\$ 128</u>
 Balance at December 31, 2000	 3	 505	 508	 --	 \$ --
Net income	129	74	203	--	203
Cash contributions	45	32	77	--	--
Distributions to Partners	(165)	(116)	(281)	--	--
Other comprehensive income:					
Minimum pension liability				(15)	(15)
Comprehensive income					<u>\$ 188</u>
 Balance at December 31, 2001	 12	 495	 507	 (15)	 \$ --
Net income	135	78	213	--	213
Cash contributions	46	32	78	--	--
Distributions to Partners	(215)	(151)	(366)	--	--
Other comprehensive income:					
Minimum pension liability				(14)	(14)
Comprehensive income					<u>\$ 199</u>
 Balance at December 31, 2002	 <u>\$ (22)</u>	 <u>\$ 454</u>	 <u>\$ 432</u>	 <u>\$ (29)</u>	

See Notes to Financial Statements.

LYONDELL-CITGO REFINING LP
NOTES TO FINANCIAL STATEMENTS

1. The Partnership

LYONDELL-CITGO Refining LP ("LCR" or the "Partnership") was formed on July 1, 1993, by subsidiaries of Lyondell Chemical Company ("Lyondell") and CITGO Petroleum Corporation ("CITGO") in order to own and operate a refinery ("Refinery") located adjacent to the Houston Ship Channel in Houston, Texas and a lube oil blending and packaging plant in Birmingham, Alabama.

Lyondell owns its interest in the Partnership through wholly owned subsidiaries, Lyondell Refining Partners, LP ("Lyondell LP") and Lyondell Refining Company ("Lyondell GP"). Lyondell LP and Lyondell GP together are known as Lyondell Partners. CITGO holds its interest through CITGO Refining Investment Company ("CITGO LP") and CITGO Gulf Coast Refining, Inc. ("CITGO GP"), both wholly owned subsidiaries of CITGO. CITGO LP and CITGO GP together are known as CITGO Partners. Lyondell Partners and CITGO Partners together are known as the Partners. LCR will continue in existence until it is dissolved under the terms of the Limited Partnership Agreement (the "Agreement").

The Partners have agreed to allocate cash distributions based on an ownership interest that is determined by certain contributions instead of allocating such amounts based on their capital account balances. Based upon these contributions, Lyondell Partners and CITGO Partners had ownership interests of approximately 59% and 41%, respectively, as of December 31, 2002. Net income before depreciation as shown on the statements of partners' capital is allocated to the partners based on ownership interests, while depreciation is allocated to the partners based on contributed assets.

2. Summary of Significant Accounting Policies

Revenue Recognition—Revenue from product sales is recognized as risk and title to the product transfer to the customer, which usually occurs when shipment is made.

Cash and Cash Equivalents—Cash equivalents consist of highly liquid debt instruments such as certificates of deposit, commercial paper and money market accounts. Cash equivalents include instruments with an original maturity date of three months or less. Cash equivalents are stated at cost, which approximates fair value. The Partnership's policy is to invest cash in conservative, highly rated instruments and limit the amount of credit exposure to any one institution.

Accounts Receivable—The Partnership sells its products primarily to other industrial concerns in the petrochemical and refining industries. The Partnership performs ongoing credit evaluations of its customers' financial condition and in certain circumstances, requires letters of credit from them. The Partnership's allowance for doubtful accounts receivable, which is reflected in the Balance Sheets as a reduction of accounts receivable-trade, totaled \$25,000 at both December 31, 2002 and 2001.

Inventories—Inventories are stated at the lower of cost or market. Cost is determined using the last-in, first-out ("LIFO") basis for substantially all inventories, except for materials and supplies, which are valued using the average cost method.

Inventory exchange transactions, which involve fungible commodities and do not involve the payment or receipt of cash, are not accounted for as purchases and sales. Any resulting volumetric exchange balances are accounted for as inventory in accordance with the normal LIFO valuation policy.

LYONDELL-CITGO REFINING LP

NOTES TO FINANCIAL STATEMENTS—(Continued)

Property, Plant and Equipment—Property, plant and equipment are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful asset lives, generally, 24 years for major manufacturing equipment, 24 to 30 years for buildings, 5 to 10 years for light equipment and instrumentation, 10 years for office furniture and 5 years for information system equipment. Upon retirement or sale, LCR removes the cost of the asset and the related accumulated depreciation from the accounts and reflects any resulting gain or loss in the Statement of Income. LCR's policy is to capitalize interest cost incurred on debt during the construction of major projects exceeding one year.

Long-Lived Asset Impairment—LCR evaluates long-lived assets for impairment whenever events or changes in circumstances indicate that a carrying amount of an asset may not be recoverable. When it is probable that undiscounted future cash flows will not be sufficient to recover an asset's carrying amount, the asset is written down to its estimated fair value. Long-lived assets to be disposed of are reported at the lower of carrying amount or estimated fair value less costs to sell the assets.

Turnaround Maintenance and Repair Costs—Costs of maintenance and repairs exceeding \$5 million incurred in connection with turnarounds of major units at the Refinery are deferred and amortized using the straight-line method over the period until the next planned turnaround, generally four to six years. These costs are maintenance, repair and replacement costs that are necessary to maintain, extend and improve the operating capacity and efficiency rates of the production units. Amortization of deferred turnaround costs for 2002, 2001 and 2000 were \$13 million, \$11 million and \$11 million, respectively. Other turnaround costs and ordinary repair and maintenance costs were expensed as incurred.

Environmental Remediation Costs—Anticipated expenditures related to investigation and remediation of contaminated sites, which include operating facilities and waste disposal sites, are accrued when it is probable a liability has been incurred and the amount of the liability can reasonably be estimated. Estimated expenditures have not been discounted to present value.

Income Taxes—The Partnership is not subject to federal income taxes as income is reportable directly by the individual partners; therefore, there is no provision for federal income taxes in the accompanying financial statements. The Partnership is subject to certain state income taxes.

Use of Estimates—The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Accounting Changes—Effective January 1, 2002, LCR implemented Statement of Financial Accounting Standards ("SFAS") No. 141, *Business Combinations*, SFAS No. 142, *Goodwill and Other Intangible Assets* and SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. Implementation of SFAS No. 141, SFAS No. 142 and SFAS No. 144 did not have a material effect on the financial statements of LCR.

Anticipated Accounting Changes—LCR expects to implement two significant accounting changes in 2003, as discussed below.

In April 2002, the Financial Accounting Standards Board ("FASB") issued SFAS No. 145, *Rescission of FASB Statement No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections*. The primary impact of the statement on LCR, when implemented in 2003, will be the classification of gains or losses that result from early extinguishment of debt as an element of income before extraordinary items. Reclassification of prior period gains or losses that were originally reported as extraordinary items also will be required (See Note 3).

NOTES TO FINANCIAL STATEMENTS—(Continued)

In January 2003, the FASB issued Interpretation No. 46 (FIN No. 46), *Consolidation of Variable Interest Entities*. FIN No. 46 addresses situations in which a company should include in its financial statements the assets, liabilities and activities of another entity. FIN No. 46 applies immediately to entities created after January 31, 2003 and, for LCR, will apply to older entities beginning in the third quarter 2003. LCR does not expect FIN No. 46 to have a significant effect on its financial statements.

Other Recent Accounting Pronouncements—In June 2001, the FASB issued SFAS No. 143, *Accounting for Asset Retirement Obligations*, which addresses obligations associated with the retirement of tangible long-lived assets. In July 2002, the FASB issued SFAS No. 146, *Accounting for Exit or Disposal Activities*. SFAS No. 146 addresses the recognition, measurement and reporting of costs associated with exit and disposal activities, including restructuring activities and facility closings. SFAS No. 146 will be effective for activities initiated after December 31, 2002. LCR does not expect adoption of SFAS No. 143 or SFAS No. 146 to have a material impact on its financial statements.

In November 2002, the FASB issued Interpretation No. 45 (FIN No. 45), *Guarantor's Accounting and Disclosure Requirements*. FIN No. 45 expands required disclosures for certain types of guarantees for the period ended December 31, 2002 and requires recognition of a liability at fair value for guarantees granted after December 31, 2002. LCR does not expect FIN No. 45 to have a significant effect on its financial statements.

Reclassifications—Certain previously reported amounts have been reclassified to conform to classifications adopted in 2002.

3. Extraordinary Items

In December 2002, LCR completed the refinancing of its credit facilities with a new \$450 million term bank loan facility and a \$70 million working capital revolving credit facility prior to maturity (See Note 7). LCR wrote off unamortized debt issuance costs of \$1 million. The \$1 million charge was reported as an extraordinary loss on extinguishment of debt. Previously, these debt issuance costs had been deferred and amortized to interest expense.

In July 2001, LCR wrote off \$2 million of unamortized debt issuance costs related to the early retirement of the \$450 million term credit facility. The charge was reported as an extraordinary loss on extinguishment of debt (See Note 7).

4. Related Party Transactions

LCR is party to agreements with the following related parties:

- CITGO
- CITGO Partners
- Equistar Chemicals, LP (“Equistar”) – Lyondell holds a 70.5% interest
- Lyondell
- Lyondell Partners
- Petróleos de Venezuela, S.A. (“PDVSA”)
- PDV Holding, Inc.
- PDVSA Petróleo, S.A. (“PDVSA Oil”)
- PDVSA Services
- Petrozuata Financial, Inc.
- TCP Petcoke Corporation

LYONDELL-CITGO REFINING LP

NOTES TO FINANCIAL STATEMENTS—(Continued)

LCR buys a substantial majority of its crude oil supply at deemed product-based prices, adjusted for certain indexed items (See Notes 11 and 12), from PDVSA Oil under the terms of a long-term crude oil supply agreement (“Crude Supply Agreement”).

Under the terms of a long-term product sales agreement, CITGO buys all of the finished gasoline, jet fuel, low sulfur diesel, heating oils, coke and sulfur produced at the Refinery at market-based prices.

LCR is party to a number of raw materials, product sales and administrative service agreements with Lyondell, CITGO and Equistar. This includes a hydrogen take-or-pay contract with Equistar (See Note 11). In addition, a processing agreement provides for the production of alkylate and methyl tertiary butyl ether for the Partnership at Equistar’s Channelview, Texas petrochemical complex.

Under the terms of a lubricant facility operating agreement, CITGO operates the lubricant facility in Birminghamport, Alabama while the Partnership retains ownership. Under the terms of the lubricant sales agreements, CITGO buys paraffinic lubricants base oil, naphthenic lubricants, white mineral oils and specialty oils from the Partnership.

Related party transactions are summarized as follows:

<u>Millions of dollars</u>	<u>For the year ended December 31,</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
<u>LCR billed related parties for the following:</u>			
Sales of products:			
CITGO	\$ 2,488	\$ 2,309	\$ 2,879
Equistar	217	203	264
Lyondell	1	--	--
PDVSA Services	--	--	14
TCP Petcoke Corporation	17	40	32
Services and cost sharing arrangements:			
Equistar	1	2	--
Lyondell	1	3	2
<u>Related parties billed LCR for the following:</u>			
Purchase of products:			
CITGO	78	80	52
Equistar	324	359	425
Lyondell	1	--	--
PDVSA	1,259	1,474	1,796
Petrozuata	22	--	--
Transportation charges:			
CITGO	1	1	1
Equistar	3	3	--
PDVSA	3	3	1
Services and cost sharing arrangements:			
CITGO	8	3	2
Equistar	17	19	15
Lyondell	3	3	4

During 2002, LCR and the Partners agreed to renew and extend a number of existing notes due to Lyondell Partners and CITGO Partners with master notes to each Partner. These master notes replace existing notes dated on or prior to July 31, 2000. At December 31, 2002, Lyondell Partners and CITGO Partners loans totaled \$229 million and \$35 million, respectively. Both master notes are due on December 7, 2004. In accordance with an agreement with the Partners related to LCR’s credit facility (See Note 7), no interest was paid to Lyondell Partners or CITGO Partners on these loans during 2002 or 2001.

LYONDELL-CITGO REFINING LP

NOTES TO FINANCIAL STATEMENTS—(Continued)

During 2000, LCR paid PDVSA \$15 million for interest on the \$450 million interim financing from May 2000 through September 2000. During 2000, LCR paid PDV Holding, Inc. \$1 million for interest on the interim \$70 million revolver loan from May 2000 through September 2000.

5. Supplemental Cash Flow Information

At December 31, 2002, 2001 and 2000, construction in progress included approximately \$6 million, \$11 million and \$3 million, respectively, of non-cash additions which related to accounts payable accruals.

During 2002, 2001 and 2000, LCR paid interest of \$26 million, \$38 million and \$41 million, respectively. No interest costs were capitalized in 2002, 2001 or 2000. During each of the years ended December 31, 2002, 2001 and 2000, LCR paid less than \$1 million in state income tax.

During the third quarter 2000, LCR recorded certain non-cash financing transactions. Proceeds from the \$450 million one-year credit facility completed in September 2000, net of approximately \$11 million of loan costs, were paid directly to the holder of the interim financing note. Also, approximately \$6 million was paid by Lyondell directly to CITGO for Lyondell's share of previous capital funding loans made by CITGO to LCR.

6. Inventories

Inventories consisted of the following components at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Finished goods	\$ 29	\$ 42
Raw materials	51	75
Materials and supplies	13	13
Total inventories	<u>\$ 93</u>	<u>\$ 130</u>

In 2002 and 2001, all inventory, excluding materials and supplies, were determined by the LIFO method. The excess of replacement cost of inventories over the carrying value was approximately \$140 million and \$53 million at December 31, 2002 and 2001, respectively.

7. Financing Arrangements

In December 2002, LCR completed the refinancing of its credit facilities with a new \$450 million term bank loan facility and a \$70 million working capital revolving credit facility with eighteen-month terms (See Note 3). The facilities, secured by substantially all of the assets of LCR, will mature in June 2004. The \$450 million term bank loan facility was originally used to partially fund an upgrade project at the Refinery which was completed in February 1997. At December 31, 2002, \$450 million was outstanding under this credit facility with a weighted-average interest rate of 4.5%. Interest for this facility was determined by base rates or eurodollar rates at the Partnership's option. The \$70 million working capital revolving credit facility is utilized for general business purposes and for letters of credit. At December 31, 2002, no amounts were outstanding under this credit facility.

The December 2002 refinancing replaced an eighteen-month credit facility consisting of a \$450 million term loan (See Note 3) and a \$70 million revolving credit facility with a group of banks, that would have expired in January 2003. These facilities replaced similar facilities, which would have expired in September 2001.

At December 31, 2001, \$450 million was outstanding under the \$450 million term loan with a weighted-average interest rate of 5.4%. At December 31, 2001 \$50 million was outstanding under the \$70 million revolving credit facility with a weighted-average interest rate of 4.8%.

LYONDELL-CITGO REFINING LP

NOTES TO FINANCIAL STATEMENTS—(Continued)

Both facilities contain covenants that require LCR to maintain a minimum net worth and maintain certain financial ratios defined in the agreements. The facilities also contain other customary covenants which limit the Partnership's ability to modify certain significant contracts, incur significant additional debt or liens, dispose of assets, make restricted payments as defined in the agreements or merge or consolidate with other entities. LCR was in compliance with all such covenants at December 31, 2002.

Also during the December 2002 refinancing, the Partners and LCR agreed to renew and extend a number of existing notes due to Lyondell Partners and CITGO Partners with master notes to each Partner. Both master notes extend the due date to December 7, 2004 from July 1, 2003 and are subordinate to the two bank credit facilities. At December 31, 2002, Lyondell and CITGO Partners loans totaled \$229 million and \$35 million, respectively, and both loans had weighted-average interest rates of 2.2%, which were based on eurodollar rates. At December 31, 2001, Lyondell and CITGO Partners loans totaled \$229 million and \$35 million, respectively, and both loans had weighted-average interest rates of 4.4%, which were based on eurodollar rates. Interest to both Partners was paid at the end of each calendar quarter through June 30, 1999, but is now deferred in accordance with an agreement with the Partners related to the \$450 million credit facility.

At December 31, 2002, LCR had outstanding letters of credit totaling \$12 million.

8. Lease Commitments

LCR leases crude oil storage facilities, computers, office equipment and other items under noncancelable operating lease arrangements for varying periods. As of December 31, 2002, future minimum lease payments for the next five years and thereafter, relating to all noncancelable operating leases with terms in excess of one year were as follows:

<u>Millions of dollars</u>	
2003	\$ 29
2004	12
2005	12
2006	9
2007	8
Thereafter	13
Total minimum lease payments	<u>\$ 83</u>

Operating lease net rental expenses for the years ended December 31, 2002, 2001 and 2000 were approximately \$34 million, \$32 million and \$31 million, respectively.

9. Financial Instruments

The fair value of all financial instruments included in current assets and current liabilities, including cash and cash equivalents, accounts receivable, accounts payable and loan payable to bank, approximated their carrying value due to their short maturity. The fair value of long-term loans payable approximated their carrying value because they bear interest at variable rates.

LYONDELL-CITGO REFINING LP

NOTES TO FINANCIAL STATEMENTS—(Continued)

10. Pension and Other Postretirement Benefits

All full-time regular employees of the Partnership are covered by defined benefit pension plans sponsored by LCR. Retirement benefits are based on years of service and the employee's highest three consecutive years of compensation during the last ten years of service. LCR accrues pension costs based upon an actuarial valuation and funds the plans through periodic contributions to pension trust funds as required by applicable law. LCR also has one unfunded supplemental nonqualified retirement plan, which provides pension benefits for certain employees in excess of the tax-qualified plans' limit. In addition, LCR sponsors unfunded postretirement benefit plans other than pensions, which provide medical and life insurance benefits. The postretirement medical plan is contributory, while the life insurance plan is noncontributory.

The following table provides a reconciliation of benefit obligations, plan assets and the funded status of the plans:

	Pension Benefits		Other Postretirement Benefits	
	2002	2001	2002	2001
Millions of dollars				
Change in benefit obligation:				
Benefit obligation, January 1	\$ 97	\$ 70	\$ 31	\$ 32
Service cost	6	5	1	1
Interest cost	8	6	2	2
Plan amendments	1	--	--	--
Actuarial loss (gain)	15	21	3	(2)
Benefits paid	(3)	(5)	(2)	(2)
Benefit obligation, December 31	<u>124</u>	<u>97</u>	<u>35</u>	<u>31</u>
Change in plan assets:				
Fair value of plan assets, January 1	39	42	--	--
Actual return on plan assets	(5)	(3)	--	--
Partnership contributions	18	5	2	2
Benefits paid	(3)	(5)	(2)	(2)
Fair value of plan assets, December 31	<u>49</u>	<u>39</u>	<u>--</u>	<u>--</u>
Funded status	(75)	(58)	(35)	(31)
Unrecognized actuarial and investment loss	59	38	14	8
Unrecognized prior service cost (benefit)	3	2	(19)	(22)
Net amount recognized	<u>\$ (13)</u>	<u>\$ (18)</u>	<u>\$ (40)</u>	<u>\$ (45)</u>
Amounts Recognized in Balance Sheets:				
Accrued benefit liability	\$ (13)	\$ (18)	\$ (40)	\$ (45)
Additional minimum liability	(32)	(17)	--	--
Intangible asset	3	2	--	--
Accumulated other comprehensive income	29	15	--	--
Net amount recognized	<u>\$ (13)</u>	<u>\$ (18)</u>	<u>\$ (40)</u>	<u>\$ (45)</u>

LYONDELL-CITGO REFINING LP

NOTES TO FINANCIAL STATEMENTS—(Continued)

Pension plans with projected and accumulated benefit obligations in excess of the fair value of assets are summarized as follows at December 31:

<u>Millions of dollars</u>	<u>2002</u>	<u>2001</u>
Projected benefit obligations	\$ 123	\$ 97
Accumulated benefit obligations	93	74
Fair value of assets	49	39

Net periodic pension and other postretirement benefit costs included the following components:

<u>Millions of dollars</u>	<u>Pension Benefits</u>			<u>Other Postretirement Benefits</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Components of net periodic benefit cost:						
Service cost	\$ 6	\$ 5	\$ 4	\$ 1	\$ 1	\$ 1
Interest cost	8	6	6	2	2	2
Actual loss on plan assets	5	3	2	--	--	--
Less-unrecognized loss	(9)	(7)	(5)	--	--	--
Recognized gain on plan assets	(4)	(4)	(3)	--	--	--
Amortization of prior service costs	--	--	--	(3)	(3)	(3)
Amortization of actuarial and investment loss	3	2	--	1	--	1
Net effect of curtailments, settlements and special termination benefits	--	--	2	--	1	--
Net periodic benefit cost	<u>\$ 13</u>	<u>\$ 9</u>	<u>\$ 9</u>	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ 1</u>
Special termination benefit charge	<u>\$ --</u>	<u>\$ --</u>	<u>\$ 1</u>	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>

The assumptions used in determining net pension cost and net pension liability were as follows at December 31:

	<u>Pension Benefits</u>			<u>Other Postretirement Benefits</u>		
	<u>2002</u>	<u>2001</u>	<u>2000</u>	<u>2002</u>	<u>2001</u>	<u>2000</u>
Discount rate	6.50%	7.00%	7.50%	6.50%	7.00%	7.50%
Expected return on plan assets	9.50%	9.50%	9.50%	N/A	N/A	N/A
Rate of compensation increase	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%

The assumed annual rate of increase in the per capita cost of covered health care benefits as of December 31, 2002 was 10% for 2003 through 2004, 7% for 2005 through 2007 and 5% thereafter. The health care cost trend rate assumption does not have a significant effect on the amounts reported due to limits on LCR's maximum contribution level to the medical plan. To illustrate, increasing or decreasing the assumed health care cost trend rates by one percentage point in each year would not change the accumulated postretirement benefit liability as of December 31, 2002 and would not have a material effect on the aggregate service and interest cost components of the net periodic postretirement benefit cost for the year then ended.

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NOTES TO FINANCIAL STATEMENTS—(Continued)

LCR also maintains voluntary defined contribution savings plans for eligible employees. Contributions to the plans by LCR were \$5 million in each of the three years ended December 31, 2002.

11. Commitments and Contingencies

Commitments—LCR has various purchase commitments for materials, supplies and services incident to the ordinary conduct of business, generally for quantities required for LCR's business and at prevailing market prices. LCR is party to various unconditional purchase obligation contracts as a purchaser for products and services, principally take-or-pay contracts for hydrogen, electricity and steam. At December 31, 2002, future minimum payments under these contracts with noncancelable contract terms in excess of one year and fixed minimum payments were as follows:

<u>Millions of dollars</u>	
2003	\$ 49
2004	45
2005	43
2006	44
2007	46
Thereafter through 2021	419
Total minimum contract payments	<u>\$ 646</u>

Total LCR purchases under these agreements were \$68 million, \$94 million and \$78 million during 2002, 2001 and 2000, respectively. A substantial portion of the future minimum payments and purchases were related to a hydrogen take-or-pay agreement with Equistar (See Note 4).

Crude Supply Agreement—Under the Crude Supply Agreement (“CSA”), which will expire on December 31, 2017, PDVSA Oil is required to sell, and LCR is required to purchase 230,000 barrels per day of extra heavy Venezuelan crude oil, which constitutes approximately 86% of the Refinery's refining capacity of 268,000 barrels per day of crude oil (See Note 4). Since April 1998, PDVSA Oil has, from time to time, declared itself in a force majeure situation and subsequently reduced deliveries of crude oil. Such reductions in deliveries were purportedly based on announced OPEC production cuts. PDVSA Oil informed LCR that the Venezuelan government, through the Ministry of Energy and Mines, had instructed that production of certain grades of crude oil be reduced. In certain circumstances, PDVSA Oil made payments under a different provision of the CSA in partial compensation for such reductions.

In January 2002, PDVSA Oil again declared itself in a force majeure situation and stated that crude oil deliveries could be reduced by up to 20.3% beginning March 1, 2002. Beginning in March 2002, deliveries of crude oil to LCR were reduced to approximately 198,000 barrels per day, reaching a level of 190,000 barrels per day during the second quarter 2002. Crude oil deliveries to LCR under the CSA increased to the contract level of 230,000 barrels per day during the third quarter of 2002, averaging 212,000 barrels per day for the third quarter. Although deliveries of crude oil increased to contract levels during the third quarter 2002, PDVSA Oil did not revoke its January 2002 force majeure declaration during 2002.

A national work stoppage in Venezuela began in early December 2002 and disrupted deliveries of crude oil to LCR under the CSA, causing LCR to temporarily reduce operating rates. PDVSA Oil again declared a force majeure and reduced deliveries of crude oil to LCR. LCR compensated for the loss in supply by reducing its inventories of CSA crude oil and increasing purchases of crude oil in the merchant market (See Note 12). Recent media reports indicate that the force majeure has been lifted.

LCR has consistently contested the validity of PDVSA Oil's and PDVSA's reductions in deliveries under the CSA. The parties have different interpretations of the provisions of the contracts concerning the delivery of crude oil. The

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NOTES TO FINANCIAL STATEMENTS—(Continued)

contracts do not contain dispute resolution procedures and the parties have been unable to resolve their commercial dispute. As a result, on February 1, 2002, LCR filed a lawsuit against PDVSA and PDVSA Oil in connection with the force majeure declarations. From time to time, Lyondell and PDVSA have had discussions covering both a restructuring of the CSA and a broader restructuring of the LCR partnership. LCR is unable to predict whether changes in either arrangement will occur.

Subject to the consent of the other partner and rights of first offer and first refusal, the Partners each have a right to transfer their interest in LCR to unaffiliated third parties in certain circumstances. In the event that CITGO were to transfer its interest in LCR to an unaffiliated third party, PDVSA Oil would have an option to terminate the CSA. Depending on then-current market conditions, any breach or termination of the CSA, or reduction in supply thereunder, would require LCR to purchase all or a portion of its crude oil feedstocks in the merchant market, could subject LCR to significant volatility and price fluctuations and could adversely affect the Partnership. There can be no assurance that alternative crude oil supplies with similar margins would be available for purchase by LCR.

Environmental Remediation—With respect to liabilities associated with the Refinery, Lyondell generally has retained liability for events that occurred prior to July 1, 1993 and certain ongoing environmental projects at the Refinery under the Contribution Agreement, retained liability section. LCR generally is responsible for liabilities associated with events occurring after June 30, 1993 and ongoing environmental compliance inherent to the operation of the Refinery. LCR's policy is to be in compliance with all applicable environmental laws. LCR is subject to extensive national, state and local environmental laws and regulations concerning emissions to the air, discharges onto land or waters and the generation, handling, storage, transportation, treatment and disposal of waste materials. Many of these laws and regulations provide for substantial fines and potential criminal sanctions for violations. Some of these laws and regulations are subject to varying and conflicting interpretations. In addition, the Partnership cannot accurately predict future developments, such as increasingly strict environmental laws, inspection and enforcement policies, as well as higher compliance costs therefrom, which might affect the handling, manufacture, use, emission or disposal of products, other materials or hazardous and non-hazardous waste. Some risk of environmental costs and liabilities is inherent in particular operations and products of the Partnership, as it is with other companies engaged in similar businesses, and there is no assurance that material costs and liabilities will not be incurred. In general, however, with respect to the capital expenditures and risks described above, the Partnership does not expect that it will be affected differently than the rest of the refining industry where LCR is located.

LCR estimates that it has a liability of approximately \$1 million at December 31, 2002 related to future assessment and remediation costs. Lyondell has a contractual obligation to reimburse LCR for approximately half of this liability. Accordingly, LCR has reflected a current liability for the remaining portion of this liability that will not be reimbursed by Lyondell. In the opinion of management, there is currently no material estimable range of loss in excess of the amount recorded. However, it is possible that new information associated with this liability, new technology or future developments such as involvement in investigations by regulatory agencies, could require LCR to reassess its potential exposure related to environmental matters.

Clean Air Act—The eight-county Houston/Galveston region has been designated a severe non-attainment area for ozone by the U.S. Environmental Protection Agency ("EPA"). Emission reduction controls for nitrogen oxides ("NOx") must be installed at the Refinery located in the Houston/Galveston region during the next several years. Recently adopted revisions by the regulatory agencies changed the required NOx reduction levels from 90% to 80%. Under the previous 90% reduction standard, LCR estimated that aggregate related capital expenditures could total between \$130 million and \$150 million before the 2007 deadline. Under the revised 80% standard, LCR estimates that capital expenditures would decrease to between \$50 million and \$55 million. However, the savings from this revision could be offset by costs of stricter proposed controls over highly reactive, volatile organic compounds ("HRVOC"). LCR is still assessing the impact of the proposed HRVOC revisions and there can be no guarantee as to the ultimate capital cost of implementing any final plan developed to ensure ozone attainment by the 2007 deadline. The timing and amount of these expenditures are also subject to regulatory and other uncertainties, as well as obtaining the necessary permits and approvals.

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NOTES TO FINANCIAL STATEMENTS—(Continued)

The Clean Air Act also specified certain emissions standards for vehicles, and in 1998, the EPA concluded that additional controls on gasoline and diesel fuel were necessary. New standards for gasoline were finalized in 1999 and will require refiners to produce a low sulfur gasoline by 2004, with final compliance by 2006. A new "on-road" diesel standard was adopted in January 2001 and will require refiners to produce ultra low sulfur diesel by June 2006, with some allowance for a conditional phase-in period that could extend final compliance until 2009. LCR estimates that these standards will result in increased capital investment totaling between \$175 million to \$225 million for the new gasoline standards and between \$250 million to \$300 million for the new diesel standard, between now and the implementation dates. In addition, these standards could result in higher operating costs.

General—LCR is involved in various lawsuits and proceedings. Subject to the uncertainty inherent in all litigation, management believes the resolution of these proceedings will not have a material adverse effect on the financial position, liquidity or results of operations of LCR.

In the opinion of management, any liability arising from the matters discussed in this note is not expected to have a material adverse effect on the financial position or liquidity of LCR. However, the adverse resolution in any reporting period of one or more of these matters discussed in this note could have a material impact on LCR's results of operations for that period without giving effect to contribution or indemnification obligations of codefendants or others, or to the effect of any insurance coverage that may be available to offset the effects of any such award.

12. Subsequent Event

Due to the national work stoppage in Venezuela that began in early December 2002, the resulting force majeure declared by PDVSA Oil and the related reduction of CSA crude oil deliveries, LCR began purchasing significant volumes of crude oil in the merchant market in late December 2002 and January 2003 (See Note 11). As a result of these merchant market purchases and the lower CSA deliveries, LCR operated at approximately 70% of capacity in January 2003. Operating rates returned to 265,000 barrels per day beginning in February 2003 as CSA deliveries returned to the contractual level, despite the force majeure declaration. Given the uncertainties surrounding the restoration of normal operations at PDVSA, future effects on the CSA cannot be determined. Recent media reports indicate that the force majeure has been lifted.

Item 9. *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure*

None.

PART III

Item 10. *Directors and Executive Officers of the Registrant*

The information regarding directors and executive officers appearing under the headings "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" of Lyondell's proxy statement relating to its 2003 Annual Meeting of Shareholders (the "2003 Proxy Statement") is incorporated herein by reference.

The SEC recently issued a new rule regarding identification of "financial experts" on audit committees. The rule will become effective later this year. Although the Board of Directors has not yet considered the matter, each member of the Audit Committee has advised management that he or she believes he or she would qualify as a "financial expert" for this purpose.

Item 11. *Executive Compensation*

The information appearing in Lyondell's 2003 Proxy Statement under the headings "Executive Compensation," "Compensation Committee Interlocks and Insider Participation," "Certain Relationships and Related Transactions" and "Compensation of Directors" is incorporated herein by reference.

Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

The information appearing in Lyondell's 2003 Proxy Statement under the headings "Principal Shareholders," "Security Ownership of Management" and "Equity Compensation Plan Information" is incorporated herein by reference.

Item 13. *Certain Relationships and Related Transactions*

The information appearing in Lyondell's 2003 Proxy Statement under the headings "Compensation Committee Interlocks and Insider Participation" and "Certain Relationships and Related Transactions" is incorporated herein by reference.

PART IV

Item 14. Controls and Procedures

- (a) *Evaluation of disclosure controls and procedures.* During the 90-day period prior to the filing of this Annual Report on Form 10-K, Lyondell performed an evaluation, under the supervision and with the participation of its management, including the President and Chief Executive Officer (principal executive officer) and Senior Vice President and Chief Financial Officer (principal financial officer), of the effectiveness of the design and operation of Lyondell's disclosure controls and procedures, as defined in Rules 13a-14(c) and 15d-14(c) under the Securities Exchange Act of 1934 (the "Exchange Act"). Based upon that evaluation, the President and Chief Executive Officer and the Senior Vice President and Chief Financial Officer concluded that Lyondell's disclosure controls and procedures are effective.
- (b) *Changes in internal controls.* There were no significant changes in Lyondell's internal controls or in other factors that could significantly affect these controls subsequent to the date of the evaluation.

Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K

(a) The following exhibits are filed as a part of this report:

- 3.1 Amended and Restated Certificate of Incorporation of the Registrant(28)
- 3.2 Amended and Restated By-Laws of the Registrant(24)
- 4.1 Indenture dated as of March 10, 1992, as supplemented by a First Supplemental Indenture dated as of March 10, 1992, between the Registrant and Continental Bank, National Association, Trustee(3)
- 4.1(a) Second Supplemental Indenture dated as of December 1, 1997 among the Registrant, Equistar Chemicals, LP and First Trust National Association(12)
- 4.1(b) Third Supplemental Indenture dated as of November 3, 2000 among the Registrant, Equistar Chemicals, LP and U.S. Bank Trust, National Association (19)
- 4.1(c) Fourth Supplemental Indenture dated as of November 17, 2000 among the Registrant, Equistar Chemicals, LP and U.S. Bank Trust, National Association (19)
- 4.2 Indenture dated as of January 29, 1996, as supplemented by a First Supplemental Indenture dated as of February 15, 1996, between the Registrant and Texas Commerce Bank, as Trustee(9)
- 4.2(a) Second Supplemental Indenture dated as of December 1, 1997 among the Registrant, Equistar Chemicals, LP and Texas Commerce Bank National Association(12)
- 4.2(b) Third Supplemental Indenture dated as of November 3, 2000 among the Registrant, Equistar Chemicals, LP and The Chase Manhattan Bank (19)
- 4.2(c) Fourth Supplemental Indenture dated as of November 17, 2000 among the Registrant, Equistar Chemicals, LP and The Chase Manhattan Bank (19)
- 4.3 Specimen common stock certificate(1)
- 4.4 \$70,000,000 Revolving Credit Agreement dated as of December 10, 2002 among LCR, the lenders from time to time parties thereto, and Credit Suisse First Boston, as Issuer and Administrative Agent and Bank of America, N.A., as Issuer
- 4.5 \$450,000,000 Credit Agreement dated as of December 10, 2002 among LCR, the lenders from time to time parties thereto, and Credit Suisse First Boston, as Administrative Agent
- 4.6 Rights Agreement dated as of December 8, 1995 between the Registrant and the Bank of New York, as Rights Agent(8)
- 4.6(a) Amendment to Rights Agreement dated August 22, 2002(29)
- 4.6(b) Amendment to Rights Agreement dated January 1, 2003
- 4.7 Amendment and Restated Credit Facility dated as of August 24, 2001 among Equistar Chemicals, LP, the lenders from time to time party thereto and Citicorp USA, Inc. and Credit Suisse First Boston, as co-syndication agents, Bank of America, N.A., as serving agent and as administrative agent and The Chase Manhattan Bank, as collateral agent and as administrative agent(22)

- 4.7(a) Amendment No. 1 dated as of March 26, 2002 to the Amended and Restated Credit Agreement dated as of August 24, 2001 among Equistar Chemicals, LP, the lenders from time to time party thereto and Citicorp USA, Inc. and Credit Suisse First Boston, as co-syndication agents; Bank of America, N.A., as servicing agent and as administrative agent and The Chase Manhattan Bank, as collateral agent and as administrative agent(25)
- 4.7(b) Amendment No. 2 dated as of March 7, 2003 to the Amended and Restated Credit Agreement dated as of August 24, 2001 among Equistar Chemicals, LP, the lenders from time to time party thereto and Citicorp USA, Inc. and Credit Suisse First Boston, as co-syndication agents; Bank of America, N.A., as servicing agent and as administrative agent and The Chase Manhattan Bank, as collateral agent and as administrative agent.
- 4.8 Amended and Restated Credit Agreement dated as of June 27, 2002 among the Registrant, the lenders party thereto, JPMorgan Chase Bank, as Administrative Agent, Bank of America, N. A. and Citibank, N. A., as Co-Syndication Agents and Societe Generale and UBS Warburg LLC, as Co-Documentation Agents(26)
- 4.8(a) Amendment No. 1 dated as of March 7, 2003 to the Amended and Restated Credit Agreement dated as of June 27, 2002 among the Registrant, the lenders party thereto, JPMorgan Chase Bank, as Administrative Agent, Bank of America, N. A. and Citibank, N. A., as Co-Syndication Agents and Societe Generale and UBS Warburg LLC, as Co-Documentation Agents.
- 4.9 Indenture dated as of January 15, 1999, as supplemented by a First Supplemental Indenture between Equistar Chemicals, LP and The Bank of New York(14)
- 4.9(a) Second Supplemental Indenture dated October 4, 1999 among Equistar Chemicals, LP, Equistar Funding Corporation and The Bank of New York(17)
- 4.10 Indenture dated as of June 15, 1988 between ARCO Chemical Company and Bank of New York, as Trustee(14)
- 4.10(a) First Supplemental Indenture dated as of January 5, 2000 between the Registrant and Bank of New York, as Trustee(17)
- 4.10(b) Form of 9 3/8% Debenture Due 2005 issuable under the Indenture referred to in Exhibit 4.10(14)
- 4.10(c) Form of 9.80% Debenture Due 2020 issuable under the Indenture referred to in Exhibit 4.10(14)
- 4.10(d) Form of 10.25% Debenture Due 2010 issuable under the Indenture referred to in Exhibit 4.10(14)
- 4.11 Indenture among the Registrant, the Subsidiary Guarantors party thereto and The Bank of New York, as Trustee, dated as of May 17, 1999, for 9 5/8% Senior Secured Notes, Series A, due 2007(16)
- 4.11(a) Supplemental Indenture dated as of July 3, 2002 among the Registrant, the Subsidiary Guarantors party thereto and The Bank of New York, as Trustee(26)
- 4.12 Indenture dated as of May 17, 1999 among the Registrant, the Subsidiary Guarantors party thereto and The Bank of New York, as Trustee, for 9 7/8% Senior Secured Notes, Series B, due 2007(16)
- 4.12(a) Supplemental Indenture dated as of July 3, 2002 among the Registrant, the Subsidiary Guarantors party thereto and The Bank of New York, as Trustee(26)
- 4.13 Indenture dated as of May 17, 1999 among the Registrant, the Subsidiary Guarantors party thereto and The Bank of New York, as Trustee, for 10 7/8% Senior Subordinated Notes due 2009(16)
- 4.13(a) Supplemental Indenture dated as of July 3, 2002 among the Registrant, the Subsidiary Guarantors party thereto and The Bank of New York, as Trustee(26)
- 4.14 Indenture dated as of August 24, 2001 among Equistar Chemicals, LP, Equistar Funding Corporation and The Bank of New York, as Trustee(22)
- 4.14(a) Form of Note dated as of August 24, 2001 (attached as Exhibit A to the Indenture filed herewith as Exhibit 4.14)(22)
- 4.15 Indenture among Lyondell Chemical Company, the Subsidiary Guarantors party thereto and the Bank of New York, as Trustee, dated as of July 2, 2002(26)
- 4.15(a) Form of Note dated as of July 2, 2002 (attached as Exhibit A to the Indenture filed herewith as Exhibit 4.15)(26)
- 4.16 Indenture among the Registrant, the Subsidiary Guarantors party thereto and The Bank of New York as Trustee dated as of December 4, 2001(23)
- 4.16(a) Form of Note dated as of December 4, 2001 (attached as Exhibit A to the Indenture filed herewith as

- Exhibit 4.16)(23)
- 4.16(b) First Supplemental Indenture dated as of July 3, 2002 among the Registrant, the Subsidiary Guarantors party thereto and The Bank of New York, as Trustee(26)
- 4.17 Warrant exercisable for the purchase of Lyondell common stock issued August 22, 2002 to Occidental Chemical Holding Corporation(29)
- 4.18 Stockholders Agreement dated August 22, 2002 among the Registrant and certain Stockholders(29)
- 4.19 Registration Rights Agreement dated August 22, 2002 between the Registrant and Occidental Chemical Holding Corporation(29)
- 4.20 Registration Rights Agreement dated as of December 4, 2002 by and among the Registrant, ARCO Chemical Technology, Inc., ARCO Chemical Technology, LP, Lyondell Chemical Nederland, Ltd. and Credit Suisse First Boston Corporation, J.P. Morgan Securities Inc., Bank of America Securities LLC and Salomon Smith Barney Inc.

The Company is a party to several debt instruments under which the total amount of securities authorized does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis. Pursuant to paragraph 4(iii)(A) of Item 601(b) of Registration S-K, the Company agrees to furnish a copy of such instruments to the Commission upon request.

EXECUTIVE OFFICER AND DIRECTOR COMPENSATION:

- 10.1 Amended and Restated Executive Supplementary Savings Plan(24)
- 10.2 Amended and Restated Executive Long-Term Incentive Plan(2)
- 10.3 Amended and Restated Supplementary Executive Retirement Plan(24)
- 10.4 Executive Medical Plan(10)
- 10.4(a) Amendment No. 1 to the Executive Medical Plan(10)
- 10.4(b) Amendment No. 2 to the Executive Medical Plan(10)
- 10.5 Amended and Restated Executive Deferral Plan(24)
- 10.6 Executive Long-Term Disability Plan(3)
- 10.6(a) Amendment No. 1 to the Executive Long-Term Disability Plan(10)
- 10.7 Amended and Restated Executive Life Insurance Plan(24)
- 10.8 Amended and Restated Supplemental Executive Benefit Plans Trust Agreement(24)
- 10.9 Restricted Stock Plan(5)
- 10.9(a) Amendment No. 1 to the Restricted Stock Plan(7)
- 10.9(b) Amendment No. 2 to the Restricted Stock Plan(12)
- 10.10 Form of Registrant's Indemnity Agreement with Officers and Directors
- 10.11 Amended and Restated Elective Deferral Plan for Non-Employee Directors
- 10.12 Amended and Restated Retirement Plan for Non-Employee Directors(24)
- 10.12(a) Amendment No. 1 to Amended and Restated Retirement Plan for Non-Employee Directors
- 10.13 Amended and Restated Restricted Stock Plan for Non-Employee Directors(24)
- 10.14 Amended and Restated Non-Employee Directors Benefit Plans Trust Agreement(24)
- 10.15 Stock Option Plan for Non-Employee Directors(24)
- 10.16 Amended and Restated 1999 Long-Term Incentive Plan(25)
- 10.17 Amended and Restated Lyondell Chemical Company Executive Severance Pay Plan(24)

OTHER MATERIAL CONTRACTS:

- 10.18 Limited Partnership Agreement of LCR, dated December 31, 1998(14)
- 10.19 Contribution Agreement between the Registrant and LYONDELL-CITGO Refining Company Ltd.(4)
- 10.20 Crude Oil Supply Agreement between LYONDELL-CITGO Refining Company Ltd. and Lagoven, S.A.(4)
- 10.21 Asset Purchase Agreement dated April 13, 1995 between the Registrant and Occidental Chemical Company(6)
- 10.22 Amended and Restated Limited Partnership Agreement of Equistar Chemicals, LP, dated as of November 6, 2002(30)
- 10.23 Asset Contribution Agreement among the Registrant, Lyondell Petrochemical L.P. Inc. and

- Equistar Chemicals, LP (11)
- 10.23(a) First Amendment to Asset Contribution Agreement, dated as of May 15, 1998, among the Registrant, Lyondell Petrochemical L.P. Inc. and Equistar Chemicals, LP(14)
- 10.23(b) Second Amendment to Lyondell Asset Contribution Agreement, dated as of September 30, 2001, among the Registrant, Lyondell Petrochemical LP Inc. and Equistar(22)
- 10.24 Asset Contribution Agreement among Millennium Petrochemicals Inc., Millennium LP and Equistar Chemicals, LP(11)
- 10.24(a) First Amendment to Asset Contribution Agreement, dated as of May 15, 1998, among Millennium Petrochemicals Inc., Millennium LP and Equistar Chemicals, LP(14)
- 10.24(b) Second Amendment to Millennium Asset Contribution Agreement, dated as of September 30, 2001, among Millennium Petrochemicals Inc., Millennium Petrochemicals LP LLC and Equistar Chemicals, LP(22)
- 10.25 Amended and Restated Parent Agreement dated as of November 6, 2002(30)
- 10.26 Agreement and Plan of Merger and Asset Contribution dated May 15, 1998 among Occidental Petrochem Partner 1, Inc., Occidental Petrochem Partner 2, Inc., Oxy Petrochemicals, PDG Chemical and Equistar Chemicals, LP(13)
- 10.26(a) First Amendment to Occidental Asset Contribution Agreement, dated as of September 30, 2001, among Occidental Petrochem Partner 1, Inc., Occidental Petrochem Partner 2, Inc., PDG Chemical Inc., Occidental Petrochem Partner GP, Inc. and Equistar Chemicals, LP(22)
- 10.27 Amended and Restated Master Transaction Agreement dated as of March 31, 2000 among the Registrant, Bayer AG and Bayer Corporation(18)
- 10.27(a) First Amendment to Amended and Restated Master Transaction Agreement, dated as of December 18, 2000(19)
- 10.28 Amended and Restated Master Asset and Stock Purchase Agreement dated as of March 31, 2000 among the Registrant, the entities set forth on Schedule 1 thereto, Bayer AG and Bayer Corporation(18)
- 10.29 Amended and Restated Limited Partnership Agreement of PO JV, LP dated as of March 31, 2000(18)
- 10.29(a) First Amendment to the Amended and Restated Limited Partnership Agreement of PO JV, LP(25)
- 10.30 Limited Partnership Interest Purchase and Sale Agreement dated as of March 31, 2000 among Lyondell SAT, INC., Lyondell POTechLP, Inc., BAYPO I LLC, BAYPO II LLC and BIPPO Corporation(18)
- 10.31 General Partnership Agreement dated December 18, 2000 between Bayer Polyurethanes B.V. and Lyondell PO-11 C.V.(19)
- 10.32 Parent Agreement dated December 18, 2000 between the Registrant and Bayer AG(19)
- 10.33 Securities Purchase Agreement dated as of July 8, 2002 between the Registrant and Occidental Chemical Holding Corporation(27)
- 10.34 Occidental Partner Sub Purchase Agreement dated as of July 8, 2002 among the Registrant, Occidental Chemical Holding Corporation, Oxy CH Corporation, and Occidental Chemical Corporation(27)
- 12 Statement Setting Forth Detail for Computation of Ratio of Earnings to Fixed Charges
- 21 Subsidiaries of the Registrant
- 23 Consent of PricewaterhouseCoopers LLP
- 24 Powers of Attorney
- 99.1 Certificate of Principal Executive Officer pursuant to Section 906 of Sarbanes-Oxley Act of 2002.
- 99.2 Certificate of Principal Financial Officer pursuant to Section 906 of Sarbanes-Oxley Act of 2002.

-
- (1) Filed as an exhibit to the Registrant's Registration Statement on Form S-1 (No. 33-25407) and incorporated herein by reference.
 - (2) Filed as an exhibit to the Registrant's Annual Report on Form 10-K Report for the year ended December 31, 1990 and incorporated herein by reference.
 - (3) Filed as an exhibit to the Registrant's Annual Report on Form 10-K Report for the year ended December 31, 1992 and incorporated herein by reference.

- (4) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated as of July 1, 1993 and incorporated herein by reference.
- (5) Filed as an exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1994 and incorporated herein by reference.
- (6) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated as of May 1, 1995 and incorporated herein by reference.
- (7) Filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 1995 and incorporated herein by reference.
- (8) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated December 8, 1995 and incorporated herein by reference.
- (9) Filed as an exhibit to the Registrant's Registration Statement on Form S-3 dated as of January 31, 1996 and incorporated herein by reference.
- (10) Filed as an exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1996 and incorporated herein by reference.
- (11) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated as of October 17, 1997 and incorporated herein by reference.
- (12) Filed as an exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1997 and incorporated herein by reference.
- (13) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated as of May 15, 1998 and incorporated herein by reference.
- (14) Filed as an exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1998 and incorporated herein by reference.
- (15) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated April 19, 1999 and incorporated herein by reference.
- (16) Filed as an exhibit to the Registrant's Registration Statement on Form S-4 (No. 333-81831) incorporated herein by reference.
- (17) Filed as an exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1999 and incorporated herein by reference.
- (18) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated as of April 14, 2000 and incorporated herein by reference.
- (19) Filed as an exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2000 and incorporated herein by reference.
- (20) Filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2001 and incorporated herein by reference.
- (21) Filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2001 and incorporated herein by reference.
- (22) Filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001 and incorporated herein by reference.
- (23) Filed as an exhibit to the Registrant's Registration Statement on form S-4 (No. 333-76536-01).
- (24) Filed as an exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2001 and incorporated herein by reference.
- (25) Filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2002 and incorporated herein by reference.
- (26) Filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2002 and incorporated herein by reference.
- (27) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated as of July 8, 2002 and incorporated herein by reference.
- (28) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated as of August 21, 2002 and incorporated herein by reference.
- (29) Filed as an exhibit to the Registrant's Current Report on Form 8-K dated as of August 22, 2002 and incorporated herein by reference.
- (30) Filed as an exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002 and incorporated herein by reference.

Copies of exhibits will be furnished upon prepayment of 25 cents per page.
Requests should be addressed to the Secretary.

(b) Consolidated Financial Statements and Financial Statement Schedules

(1) Consolidated Financial Statements

Consolidated Financial Statements filed as part of this Annual Report on Form 10-K are listed in the Index to Financial Statements on page 68.

(2) Financial Statement Schedules

Financial statement schedules are omitted because they are not applicable or the required information is contained in the Financial Statements or notes thereto.

(c) Reports on Form 8-K

The following Current Reports on Form 8-K were filed or furnished during the quarter ended December 31, 2002 and through the date hereof:

<u>Date of Report</u>	<u>Item Nos.</u>	<u>Financial Statements</u>
August 21, 2002	5 and 7	No
August 22, 2002	2 and 7	Yes
November 26, 2002	5 and 7	No
January 17, 2003	5	No
January 30, 2003	7 and 9	Yes

SIGNATURES

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

LYONDELL CHEMICAL COMPANY

Date: March 11, 2003

By: /s/ DAN F. SMITH

Dan F. Smith

President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ WILLIAM T. BUTLER*</u> (William T. Butler)	Chairman of the Board	March 11, 2003
<u>/s/ DAN F. SMITH</u> (Dan F. Smith, Principal Executive Officer)	President, Chief Executive Officer and Director	March 11, 2003
<u>/s/ CAROL A. ANDERSON*</u> (Carol A. Anderson)	Director	March 11, 2003
<u>/s/ STEPHEN I. CHAZEN*</u> (Stephen I. Chazen)	Director	March 11, 2003
<u>/s/ TRAVIS ENGEN*</u> (Travis Engen)	Director	March 11, 2003
<u>/s/ STEPHEN F. HINCHLIFFE, JR.*</u> (Stephen F. Hinchliffe, Jr.)	Director	March 11, 2003
<u>/s/ RAY R. IRANI*</u> (Ray R. Irani)	Director	March 11, 2003
<u>/s/ DAVID J. LESAR*</u> (David J. Lesar)	Director	March 11, 2003
<u>/s/ DUDLEY C. MECUM*</u> (Dudley C. Mecum)	Director	March 11, 2003
<u>/s/ WILLIAM R. SPIVEY*</u> (William R. Spivey)	Director	March 11, 2003
<u>/s/ T. KEVIN DENICOLA</u> (T. Kevin DeNicola, Principal Financial Officer)	Senior Vice President and Chief Financial Officer	March 11, 2003
<u>/s/ CHARLES L. HALL</u> (Charles L. Hall, Principal Accounting Officer)	Vice President and Controller	March 11, 2003
*By: <u>/s/ KERRY A. GALVIN</u> (Kerry A. Galvin, as Attorney-in-fact)		March 11, 2003

CERTIFICATIONS

I, Dan F. Smith, President and Chief Executive Officer of Lyondell Chemical Company, certify that:

1. I have reviewed this annual report on Form 10-K of Lyondell Chemical Company;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
 - (a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - (c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officer and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 11, 2003

/s/ DAN F. SMITH
Dan F. Smith
President and Chief Executive Officer
(Principal Executive Officer)

I, T. Kevin DeNicola, Senior Vice President and Chief Financial Officer of Lyondell Chemical Company, certify that:

1. I have reviewed this annual report on Form 10-K of Lyondell Chemical Company;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:
 - (a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - (c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officer and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 11, 2003

/s/ T. KEVIN DENICOLA
T. Kevin DeNicola
Senior Vice President and
Chief Financial Officer
(Principal Financial Officer)

Shareholder Information

STOCK EXCHANGE

Lyondell Chemical Company's original common stock is listed on the New York Stock Exchange under the symbol LYO. As of December 31, 2002, there were 1,446 shareholders of record.

ANNUAL MEETING

The Annual Meeting of Shareholders will be held on Thursday, May 1, 2003, beginning at 9 A.M. in Lyondell Chemical Company's General Assembly Room, 42nd Floor, One Houston Center, 1221 McKinney, Houston, Texas. Notice of the meeting, proxy statement and proxy card will be sent to shareholders in advance of the meeting.

SHAREHOLDER INFORMATION SERVICES

Shareholders and other interested parties can learn more about Lyondell's earnings, dividends, stock price, news releases, SEC filings and other information through the following information services:

- Visit Lyondell at <http://www.lyondell.com>.
- Call Lyondell Investor Relations at 713-652-4590.
- Mail your questions or request to us at:

Lyondell — Investor Relations Department
PO Box 3646
Houston, Texas 77253-3646

OUR INVESTOR RELATIONS CONTACT IS

Douglas J. Pike, 713-309-7141

CORPORATE GOVERNANCE

Lyondell's Corporate Governance web site is available at www.lyondell.com.

ONLINE ANNUAL REPORT

Lyondell's Annual Report is available online at www.lyondell.com.

EASY WAYS TO ACCUMULATE ADDITIONAL SHARES OF LYONDELL STOCK

Lyondell provides a convenient way to add to your stock ownership through an automatic dividend reinvestment plan. Shareholders can acquire additional shares of Lyondell stock by reinvesting cash dividends or making optional cash payments.

REGISTRAR AND TRANSFER AGENT

To enroll in the dividend reinvestment plan, or to get answers to questions about your stock account or dividends, contact:

American Stock Transfer & Trust Company
PO Box 922
Wall Street Station
New York, NY 10269-0260
1-877-749-4981
Web site: <http://investpower.com>

Address shareholder inquiries, send certificates for transfer and address changes to:

American Stock Transfer & Trust Company
59 Maiden Lane
New York, NY 10038
1-800-937-5449
Email: info@amstock.com
Web site: <http://www.amstock.com>

MARKET PRICE AND DIVIDENDS

PAID BY QUARTER

Dollars	First	Second	Third	Fourth
2002				
Market Price Per Share				
High	17.59	17.47	15.25	14.83
Low	12.07	13.05	11.15	10.33
Cash Dividends Per Share	225	225	225	225
2001				
Market Price Per Share				
High	17.95	17.65	15.40	15.93
Low	12.625	13.94	9.45	10.90
Cash Dividends Per Share	225	225	225	225

