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THE STRUCTURE OF THE U.S. PETROLEUM INDUSTRY

A SUMMARY OF SURVEY DATA

Prepared for the Chairman

SPECIAL SUBCOMMITTEE ON INTEGRATED OIL OPERATIONS

of the

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
UNITED STATES SENATE

pursuant to

S. Res. 45
THE NATIONAL FUELS AND ENERGY POLICY STUDY

Serial No. 94–37 (92–127)



Printed for the use of the
Committee on Interior and Insular Affairs

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COMMITTEE PRINT

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National Fuels and Energy Policy Study

(SENATE RESOLUTION 45, 92D CONGRESS)

This publication is printed for the use of Senators participating in the National Fuels and Energy Policy Study, authorized by Senate Resolution 45 of the 92d Congress.

Senate Resolution 45, introduced by Senators Jennings Randolph and Henry M. Jackson, was amended and agreed to by the Senate on May 3, 1971. The resolution authorized the Senate Committee on Interior and Insular Affairs and ex-officio members of the Committees on Commerce and Public Works and the Joint Committee on Atomic Energy to make a comprehensive study of programs and policies required to meet national energy needs.

Subsequently, the Senate approved the addition of ex-officio members from the Committees on Aeronautical and Space Sciences, on Finance, on Foreign Relations, on Government Operations, and on Labor and Public Welfare.

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Special Subcommittee on Integrated Oil Operations

On July 31, 1973, Senator Henry M. Jackson, chairman of the Committee on Interior and Insular Affairs, established the Special Subcommittee on Integrated Oil Operations for the purpose of delineating the structure and performance of the petroleum industry, and to educe a factual record upon which to base the formulation of new and effective public policies.

MEMORANDUM OF SENATOR HASKELL

To Members and Ex Officio Members of the National Fuels and Energy Policy Study (S. Res. 45, 92d Congress):

In establishing the Special Subcommittee on Integrated Oil Operations in June, 1973, the Chairman of the full Committee on Interior and Insular Affairs emphasized that the Subcommittee was to be a fact-finding body. In order to fullfill that objective, the Subcommittee prepared a comprehensive questionnaire which was sent to 89 companies involved in all segments of the petroleum industry. The questionnaire requested basic factual information concerning the intricate relationships among those companies themselves, and between them and other financial and legal institutions.

A summary of the questionnaire responses is presented in this Summary of the Survey Data. They were summarized by a group at Cornell University led by Dr. Duane Chapman. Funds for the study were made available through the National Science Foundation and the Library of Congress. The survey itself was an unprecedented attempt by a committee of Congress to acquire and assess basic information about an industry which plays an integral part in our nation's economy and our way of life.

The Summary of Survey Data does not purport to be a judgment or recommendation of the Subcommittee. It is simply a compilation and summary of the responses to the questionnaire. Neither the members of the Subcommittee nor the members of the full Committee have reviewed the Summary; publication of it in no way represents the Committee's endorsement of its conclusions or comments.

The results of the survey are particularly important because of the current national debate concerning the structure and performance of the petroleum industry. Much of the material in this survey is "new" to the public and has not been published in this form before, though the basic data is two years old. It is my hope the data will play a role in the national policy debate and help shift our discussions from rhetoric and ideology to a factual examination of the industry's structure and performance. I feel confident it will give us greater insight and understanding of the role of competition in that industry.

The paper presented here is a basic summary of the survey data. The entire data base for the survey will be published on machine readable tape and will be available through the National Technical Information Service and Cornell University. This service to scholars and other researchers has been made possible by grants from the National Science Foundation and the Congressional Research Service of the Library of Congress to Cornell University. The publication of the basic, factual data obtained as a result of the survey—over three million data entries—is significant in and of itself. Never before has so much information been assembled in one place for scholars and political observers to understand, evaluate, and assess its significance. Publication of the Summary of Survey Data is just the first step in gleaning the significance and import of the Subcommittee study.

The survey includes previously unpublished lists of directors of petroleum companies and their affiliations with financial and other institutions. The information concerning the companies' indebtedness and creditors has never published. Nor have the interlocking relationships with holding companies, mutual creditors, mutual financiers, mutual accounting firms, and mutual stockholders. Some of the financial data on profits at each level of the industry is also new. The information concerning inter-company joint ventures is new as well. In the marketing area it shows the extent of cooperation in trading finished products, the similarity of present marketing patterns to the original Sandard Oil Trust patterns, and indicates that the conventional approach to measuring national market shares shows the least amount of concentration as compared to other methods. It also details the control of coal companies by oil companies, along with the oil company dominance of nuclear power.

Perhaps there is equal significance in the information that is lacking. The questionnaire requested basic data on all aspects of the industry; many of the questions went unanswered because the recipients said the information is not available in the form requested. Nor were they able to supply it in any other usable form that would allow comparison of the responses from two or more companies. Some of the information received was simply impossible to summarize and has not been printed.

A word of caution is necessary for those who are interpreting the data presented. The questionnaire was submitted to the companies with an extensive list of definitions in an attempt to obtain statistically comparable information from diverse sources. The information presented should be looked at with those definitions in mind. Some of those companies responding provided footnotes with their answers; those footnotes have been included in detail in the data tape.

Some of the companies responding to the questionnaire requested confidential treatment of all or a part of their answers. The full Interior Committee spent a great deal of time considering these requests and discussing various options which would enable publication without forfeiting a great deal of data. Eighty-nine companies were sent the questionnaire; 63 responded; 11 requested some form of confidential treatment. The Committee has granted two of those requests where it was our judgment that particular economic harm would result if the information were published; the others were denied. Records of the various Committee votes on the confidentiality issues are available in the Committee offices.

I appreciate the bipartisan effort that went into the drafting of the questionnaire. Members and staff of both the Minority and the Majority parties participated in this effort. They also helped formulate the list of those companies requested to respond to the questionnaire and have spent countless hours answering questions of company representatives who were attempting to comply with our request. The spirit of bipartisanship did not carry through the Committee's deliberations over the confidentiality requests and unfortunately the vote to publish the Summary was divided along party lines. Nevertheless , I hope the information presented will be of some use to those who are interested in formulating national policy towards this most vital industry.

Those who care to draw policy conclusions concerning the structure of the petroleum industry will now be able to draw them based on the best available information supplied by the companies themselves. I am grateful to all those who have supported the effort to obtain this information. I hope this process will continue as the Congress considers policy questions about an industry of increasing significance in this nation and throughout the world.

I make no pretense this study is dispositive of the policy questions and answers we seek. However, it does put clearly on the record information on which intellectually honest decisions can be made.

FLOYD K. HASKELL,
Chairman, Special Subcommittee on
Integrated Oil Operations.

FOREWORD

This summary of the survey of the petroleum industry is the result of the efforts of many individuals and organizations.

The survey was executed in 1974 and 1975, for and by the Senate Committee on Interior and Insular Affairs' Special Subcommittee on Integrated Oil Operations. Professional staff members involved in the project were Bill Van Ness, Betsy Moler, Gregg Erickson (now with the Alaska Legislative Affairs Agency), Patrick Berry, Lucille Langlois and Arlon Tussing of the Committee Staff.

John Wilson, George Donkin and Sheldon Bierman, members of the Cornell Energy Industry Study Group from January 1974 to March 1975, prepared the questionnaire and were primarily responsible for the coordination of corporate responses. The survey data were processed and summarized at Cornell University.

In addition to the groups and individuals named above, the advice and criticism of the following persons have been invaluable: Senator Floyd Haskell, Chairman of the Special Subcommittee, Timothy Mount and B. F. Stanton, Cornell University, and Bruce Smith, National Science Foundation.

Further acknowledgement is due Gary Thomas, Martha Czerwinski, William Deehan, Mrs. A. Z. Papas, Mrs. Mary Ellen Rapalee, Joseph Baldwin, Jeanne Ostro, Marianne Stein, Joan Ferroni, John Crowley, Joseph Metz, Olan Forker, Carl Pechman, Mani Karunasekera, Youngeum Lee, and Barbara Freyburger at Cornell University.

Theresa Flaim authored chapters II, III (except the acquisitions, directors, and finance sections), and IV. Silvio Flaim has written the financial data section in chapter III. I have written the remainder, chapter VII with the assistance of Charles Zimmermann. The analytical contributions of Kathy Cole and Jan Locken appear in every chapter.

The work of the Study Group was supported by the National Science Foundation RANN Program through Grant GI–41470 and Cornell University. The survey is part of an analysis of the impact of energy industry structure and Federal tax policy on energy production and consumption and environmental quality.

The Library of Congress Congressional Research Service provided support at a critical juncture in the survey's preparation. Of particular assistance were Douglas N. Jones, John Spriggs, and Jane Gravelle at the Library of Congress, who reviewed a draft of this summary report.

Any opinions, findings, results or conclusions expressed herein are those of the authors and do not necessarily reflect the views of the Library of Congress, the National Science Foundation, the Senate Interior Committee, or Cornell University.

DUANE CHAPMAN.

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THE STRUCTURE OF THE U.S. PETROLEUM INDUSTRY

A SUMMARY OF SURVEY DATA

Prepared by

Duane Chapman, Theresa Flaim, Kathy Cole, Jan Locken, and
Silvio Flaim, all of Cornell University

for the

Congressional Research Service,
Library of Congress

at the request of

Henry M. Jackson, Chairman
Committee on Interior and Insular Affairs

Floyd K. Haskell, Chairman
Special Subcommittee on Integrated Oil Operations

JUNE 1976

THE STRUCTURE OF THE U.S. PETROLEUM INDUSTRY

A SUMMARY OF SURVEY DATA

I. Introduction

The growth of the energy and petroleum industry in the United States in this century is part of a larger pattern of change in the structure of the national economy. In a span of three generations, from 1900 to 1973, our population has increased threefold, the Gross National Product is 13 times as large, and disposable personal income per capita is 4 times higher than in 1900.[1]

But just as these aggregate measures of growth show remarkable increase, the Nation has undergone a major transformation in the composition of the goods and services it consumes and the work done by its labor force in producing these goods and services. In 1900 the population was rural, agricultural, and to a considerable extent self-employed. In 1900, 60 percent of the population lived in rural areas, places with less than 2,500 residents. Today less than one-fourth of the population is rural. In 1900, 30 percent of employed persons were self-employed, while 8.5 percent are self-employed now.

In 1972 personal consumption expenditures totaled $725 billion, with 27 percent of this purchasing food and clothing. But in 1900, food and clothing accounted for 32 percent of the $160 billion [2] of personal consumption. In 1973, more than three-fourths of the households owned a car, a television set, a washing machine, and a refrigerator. Approximately a third of the households owned two cars, a color television set, a clothes dryer, a freezer, and an airconditioner. In 1900, these items were nonexistent in their present form. All of these changes in consumption patterns require greater energy consumption.

The production of these consumer goods is a major part of our economy. The automobile industry believes it provides employment, directly or indirectly, to one of every 5½ civilian workers. Considering appliance manufacturing as well, the number of civilian workers dependent upon the sale and use of automobiles and appliances in 1973 may have been 20 to 25 million.[3]

These statistics delineate in outline form the major changes in magnitude and form of our economy. The patterns are inextricably linked to the growth of energy consumption and the modern form of the organization of the energy industry. Per capita annual energy consumption in the U.S. increased from 127 million Btu's in 1900 (in-

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[1] In real terms. In 1973 dollars, disposable personal income per capita increased from $977 in 1900 to $4,195 in 1973; GNP, from $101 billion to $1.289 trillion.

[2] In 1972 dollars. $28.8 billion in 1900 dollars. The proportion of personal consumption spent on food and clothing began rising in 1973 and was 30 percent of total consumption expenditures in mid-1975.

[3] Motor Vehicle Manufacturers Association, 1975 Automobile Facts and Figures; Survey of Current Business.

cluding firewood and work animals) to 356 million Btu's in 1973.[4] Petroleum, the source of only 5 percent of our total primary energy in 1900, had risen to 56 percent in 1973. The per capita use of petroleum products was 40 gallons in 1900 and 1,250 in 1973.

Just as the structure of the economy has been transformed with respect to consumption, employment, and energy use, so has the nature of the largest industrial corporations. As shown in Table 1–A, the 10 largest corporations by assets in 1909 were in agriculture (5) metals (2) rail and marine transport (2), and Standard Oil of New Jersey in petroleum. By 1974, energy dominates the group of largest corporations. Of the 10 largest, 5 are petroleum companies, 2 are automobile companies (intensive consumers of energy in manufacture and use) 1 is a manufacturer of energy equipment and appliances, 1 is an electronics firm, and 1 is a diverse conglomerate.

TABLE 1–A.—LARGEST INDUSTRIAL CORPORATIONS, 1909, 1974, RANKED BY ASSETS

Rank	1909	1974
1	United States Steel	General Motors
2	Standard Oil-New Jersey	Exxon
3	American Tobacco	Texaco
4	International Mercantile Marine	Ford Motor
5	International Harvester	Mobil Oil
6	Anaconda	IBM
7	U.S. Leather	Gulf Oil
8	Armour	Standard Oil-California
9	American Sugar Refining	I.T. & T.
10	Pullman	General Electric

Sources: N. R. Collins and L. E. Preston, "The Size Structure of the Largest Industrial Firms, 1909–58," American Economic Review, 51:5:986–1011, December 1961; Fortune.

The recent recession is generally believed to be caused by or associated with the abrupt decline in sales of new cars, appliances, and homes. To some extent, the doubling of real prices of primary energy since 1973 is responsible for this decline. Higher energy prices have raised new car prices and gasoline prices, thereby making new cars less desirable to consumers. The decline in residential housing construction is attributable to a large degree to higher mortgage rates. However, the prospect of rising costs of automotive transportation may be contributing to a decline in the attraction of suburban residence. The implication of these observations is that energy availability and energy prices were one major cause of the recession.[5]

The present is a period of uncertainty about the future of the economy in each respect mentioned: population growth, national economic growth, personal income growth, employment, the use of automobiles and energy-using appliances, the use of energy in manufacturing and commerce, and the structure of the energy industry.

At the same time, the preceding discussion suggests that our economy is based upon and influenced by energy production and consumption. It follows that if the organization of the petroleum industry affects the production and pricing of energy and of energy using appliances and equipment, then the organization of this industry must necessarily influence the structure and behavior of the economy itself.

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[4] Primary energy consumption does not include electrical energy produced from fossil fuel. A Btu is a British thermal unit, the amount of energy necessary to raise the temperature of one pound of water by one degree Farenheit. One Btu of electrical energy will operate a 100-watt bulb for 10.5 seconds. A pound of bituminous coal contains about 760 Btu's, and a gallon of gasoline about 125,000 Btu's.

Sources: Statistical History of the United States from Colonial Times to Present; 1974 Gas Facts. In 1900 fuel wood and work animals (usually excluded from energy consumption data) contributed 26 million and 0.5 million Btu's per capita. Per capita usage of energy declined in 1974 and 1975.

[5] Certainly other factors are seen as being of equal or greater importance in the current recession. A brief listing must include money supply, institutional rigidities, investment spending, and the effects of fiscal policy and inflation on real income.

II. Description of the Survey

The survey summarized herein is intended to provide basic descriptive material related to the structure of the petroleum industry. The survey requested information from 89 companies in the petroleum industry regarding directorate affiliations, acquisitions and mergers, ownership, subsidiary holdings, association with legal, accounting, and financial groups, joint activities in oil and gas exploration, production, refining, and transportation, marketing, and operations in coal and uranium. The questionnaire and a discussion of methodology are in Appendix A; 63 companies—including the 20 largest—responded. These companies, as well as those not responding, are described in Appendix B. The survey includes approximately 3 million data entries, and is available from the National Technical Information Service or Cornell University.[1]

The survey includes the 20 largest firms by sales in 1974, 12 vertically integrated firms [2] which are generally large but not among the majors, 38 independents, and 19 subsidiaries. 46 companies have foreign operations, and 17 have an interest in coal, uranium, or geothermal operations.

Three special cases are worth noting: first is the relationship between the Shell Oil Company (U.S.A.) and Royal Dutch Shell, the second is the relationship between Standard Oil of Ohio and British Petroleum and the third is the relationship between Getty Oil Co. and Skelly Oil Co. Shell Oil Company (U.S.A.) is a part of a larger group of companies called the Royal Dutch Shell Group of Companies. According to the 1974 Annual Report of British Petroleum Co., Ltd., in 1969 British Petroleum transferred certain marketing and refining properties and Alaskan oil and gas leases to Standard Oil of Ohio in exchange for what now amounts to a 25-percent equity interest in Standard Oil of Ohio. Prior to January 1, 1984, this percentage equity may rise to a maximum of 54 percent, depending upon the rate of production from the transferred Alaskan leases. Skelly Oil Co. is approximately 70-percent owned by Getty Oil Co. The two will often be discussed together in the text, although the two companies responded to the questionnaire separately.

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[1] By means of a grant from the National Science Foundation, the survey is available in a magnetic tape form, accompanied by operating instructions, listing programs, and coding keys. Persons interested in analyzing survey data by means of this tape should first obtain "Petroleum Industry Survey Data: Users' Guide," which is also available.

[2] A vertically integrated firm is one which operates at each level of activity: exploration, production, transportation, refining, and marketing. As used here, an independent is a company which is not owned or controlled by another firm or firms and which operates at one or more—but not all—levels of activity. John J. Iannone, The Petroleum Industry, A Report on Corporate and Industry Structure and Ownership, prepared for the Federal Energy Administration, April 1975, was used in preparing this classification.

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III. Ownership, Management, and Finance

This section summarizes the results of the survey with respect to mergers and acquisitions, subsidiaries, directorate relations, stock ownership, debt holdings, security issues, legal and accounting services, and certain investment, revenue, cost, and profit data.[1]

ACQUISITION AND MERGERS

The 38 firms reporting domestic and foreign mergers and acquisitions of more than $25 million in the period 1945–73 reported 155 such actions with market value of $16.7 billion at the time of the transaction. Seventy percent of the reported actions were acquisitions, and these were most frequent in the latter half of the period. The largest seven companies by sales in 1974 (see Table 3–A) reported no merger activity. The 13 smaller companies of the largest 20 reported five mergers,[2] all occurring between 1965 and 1969.

The 20 largest companies reported 100 mergers or acquisitions with market value of $12.3 billion.[3] This may be compared to the 1954 assets of the 20 largest of $25 billion and the 1973 assets of $132.4 billion.

These actions are significant in understanding the stability of composition of the group of the 20 largest companies. Table 3–A shows petroleum companies ranked by sales in 1954 and 1974. The 20 largest firms had become 17 by 1974. This is because Tidewater Oil Co. merged with Getty Oil in 1967, and the western region of Tidewater was sold to Phillips in 1966. Pure Oil and Union Oil of California merged in 1965. The present Atlantic Richfield is the result of the merger of Atlantic Refining Co. and the Richfield Oil Corp. in 1966 and the merger of Sinclair with Atlantic Richfield in 1969. Hence the 20 largest companies of 1954 are all contained within the 20 largest of 1974. Further evidence of stability is that the largest seven firms in 1954 were the largest seven in 1974.

A study covering an earlier period of the petroleum industry reported similar patterns. Using proportions of gasoline sales (as opposed to total sales used here), Melvin de Chazeau and Alfred Kahn found that the top 16 marketers in 1926 were included in the top 19 marketers in 1954. Moreover, the top seven gasoline marketers in 1926 were the top seven marketers in 1935 and in 1954. Thus, de

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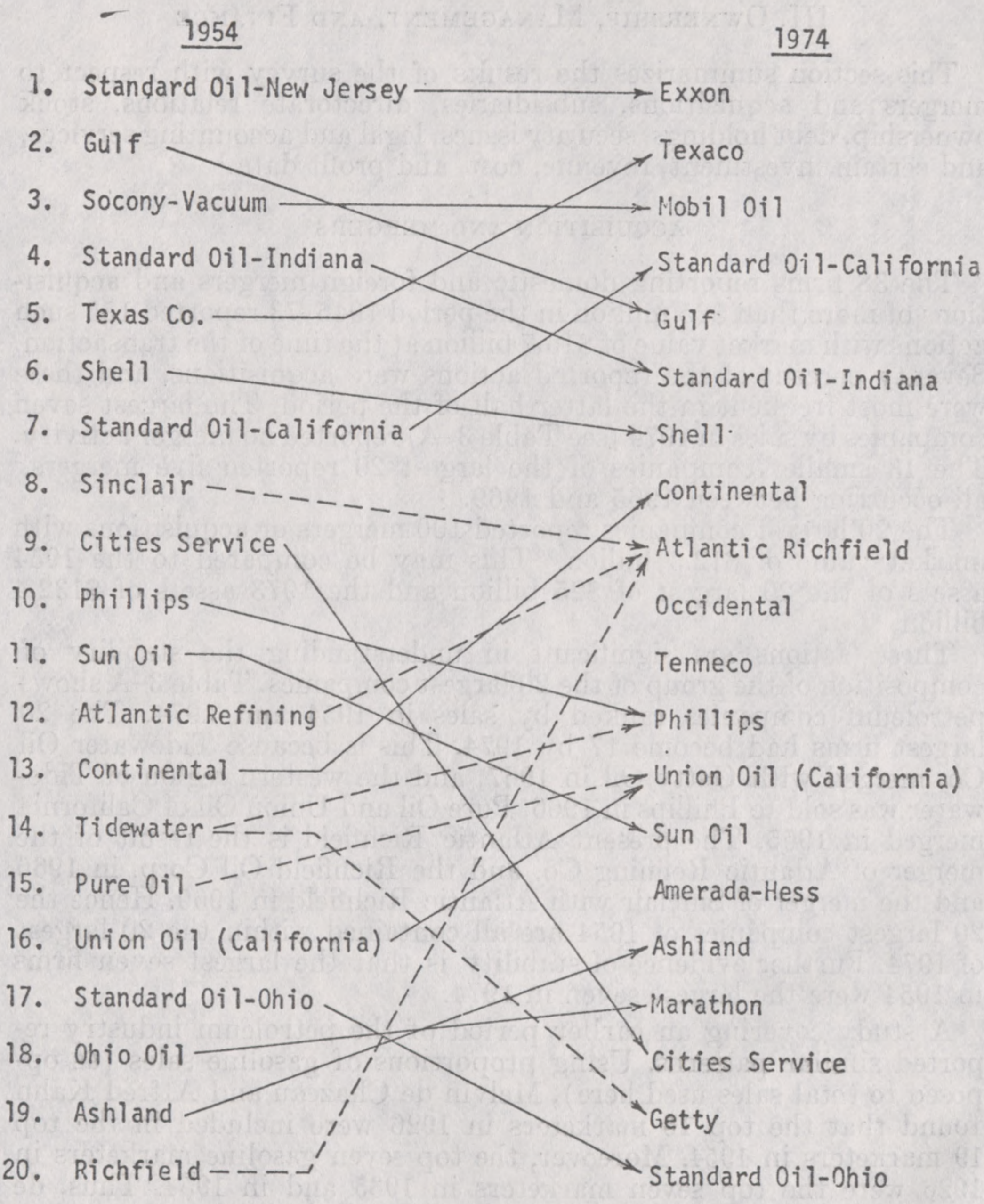
[1] Questions 1 to 5 and 32 to 34 in the survey.

[2] The mergers noted here refer to previously independent companies. In the survey, some companies reported transactions between parent and subsidiaries and some did not.

[3] These market values are in dollar value in the year of acquisition or merger, and are comparable to 1973 assets to the extent that such reported assets are valued at their cost of original acquisition. Ten transactions were of such a nature that market value was not established. Mobil did not respond to this question. Merger and acquisition data is from the survey; net assets are as reported in Fortune Magazine in 1954 and 1973, and generally are companies' year-end assets less depreciation and depletion as reported in annual reports.

Chazeau and Kahn found that the period from 1926 to 1954 "showed far more stability than change" in both the identity and relative position of the major petroleum firms.[4]

TABLE 3–A.—Change in sales status of major petroleum corporations, 1954–74 [1]



[1] Segmented lines denote major mergers and acquisitions. Solid lines indicate movement in relative position. Significant changes in name are Exxon (Standard Oil-New Jersey in 1954), Mobil (formerly Socony-Vacuum) and Marathon (formerly Ohio Oil). Sources: Survey; Fortune.

The largest 20 firms of 1974 also include 3 entrants: Occidental, Tenneco, and Amerada Hess. In the late 1960's, the Occidental

---

[4] Melvin G. de Chazeau and Alfred E. Kahn, *Integration and Competition in the Petroleum Industry,* Yale University Press, New Haven, Conn., 1959, pp. 94–102. While gasoline sales are not directly comparable to total sales, six of the seven largest firms by sales in 1974 were included in the top seven gasoline marketers in 1926, 1935 and 1954. Standard Oil of California was not among the top seven gasoline marketers in 1926, 1935 and 1954. Sinclair Oil Corp. (now part of Atlantic Richfield), a major gasoline marketer in the earlier period, was not among the top seven firms by sales in 1974.

Petroleum Corp. acquired the European operations of Signal Oil and Gas Corp., the Permian Corp., the Island Creek Coal Company and the Hooker Chemical Corp. Tenneco (formerly the Tennessee Gas Transmission Company) reported acquisitions valued at $1 billion for transactions involving net value of $25 million or greater. Included in these acquisitions were the Kern County Land Company, Newport News Shipbuilding, and the Packaging Corporation of America. Apparently more than 100 foreign and domestic subsidiaries of lesser size were acquired.[5] The Amerada Hess Corp. is the result of the 1969 merger of the Amerada Petroleum Co. and the Hess Oil and Chemical Co. Getty was not among the 1954 group; in 1974, as noted, it included the bulk of Tidewater Oil Co., eighteenth in size in 1966, and the Skelly Oil Co., twenty-third in size in 1966.

We conclude that the mergers and acquisitions reported in the survey did not significantly alter the stability of the group of largest companies.

DIRECTORS

Sixty-one companies reported 3,444 affiliations[6] of members of their boards of directors during 1964–73. These affiliations by 1,382 directors are with 3,076 organizations.

Four hundred organizations had affiliations with two or more oil companies. Fourteen instances of a single person serving simultaneously on the boards of two or more independent petroleum companies have been reported. The Federal Trade Commission has apparently begun to enforce existing Clayton Act legislation prohibiting one individual from serving on the boards of directors of two competing firms, and it may be anticipated that some or all of these 14 multiple directorships have ceased.[7] However, the efficiency and apparent legality by which one nonpetroleum company may have different employees—or directors—each serve on one petroleum corporation board would seem to make the prohibition on single person multiple directorships a moot issue.

The First National City Bank was reported as an affiliation by 16 directors from 7 oil companies, the Chase Manhattan Bank by 11 directors from 7 companies, and the Chemical Bank by 10 directors and 8 companies.

Table 3–B shows the reported affiliations for these three banks.

It is also common for an accounting, law, or investment company to be represented on multiple boards of directors, as shown by Table 3–C.

It should be noted that these affiliations between companies through banks—often termed "interlocks"—are usually not direct: Mr. Smith from the bank is not on the board of A and B. They are indirect, in the sense that Mr. Jones and Mr. Smith from the bank serve with A and B respectively.

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[5] Precisely, acquisitions were valued at $988 million. Dispositions totaling $211 million were reported, including $61 million in sales to apparent subsidiaries. (One property was sold to a subsidiary in 1969 and purchased in 1973.) Sources: Survey questions 1 and 5; *Moody's Industrial Manual*.

[6] Affiliation includes membership on another board of directors or employment or association with another corporation or group.

[7] "12 Oil Corporations Consent to End Interlocking Boards," New York Times, Apr. 23, 1975, p. 1. Two other interlocks were reported in the article but not in the survey. All these interlocking affiliations had ended or were scheduled to end.

The affiliated organizations have been classified according to major form of economic activity in a system with 51 types of activity. (Appendix C shows such affiliations for each reporting company.) Table 3–D summarizes all these data in the form of the percentages of affiliations with each type of activity for the large [8] and smaller companies.

Banking is the only category exceeding 10 percent for each group. For the largest 20 companies, 25 percent of the affiliations are with banking, insurance, and investment firms. For the other, smaller companies, the proportion of affiliations with financial interests is also 25 percent, but with less emphasis on banking.

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[8] Again, the 20 largest in sales in 1974.

TABLE 3-B.—ORGANIZATIONS WITH THE MOST AFFILIATIONS WITH PETROLEUM COMPANIES

Oil company	Director	Title with oil company	Term with oil company	Title with other company	Term with other company
First National City Bank:					
Union Texas Petroleum	Perkins, Richard S		1958 to present	Chairman of the executive committee.	
Standard Oil Co. of California	Piggott, Charles M				
Do	Haynes, J. T	Chairman of the board			1972 to present.
Phillips Petroleum Co	Spencer, William I		1971–74		
Do	Forward, Dewitt A		1964–64	Vice-chairman of the board	
Monsanto Co	Sommer, Charles H	Chairman of the board	1959 to present	Trustee	
Do	Rockefeller, James S		1966–73	Former chairman of the board	
Do	Palmer, Howard L		1972 to present		
Do	Eaton, Frederick M		1947 to present		
Mobil Oil Corp	Williams, Albert L		1960 to present		Present.
Do	Mortimer, Charles G		1962–70		
Exxon Corp	Haider, Michael L		1959–69		1964–69.
Do	Garvin, Clifford C., Jr				1973–74.
Do	Brisco, Milo M		1966–72		1971–72.
Commonwealth Oil Refining	Lockwood, William A		1973 to present	Senior vice president	
Do	Laeri, J. Howard		1972 to present	Vice chairman of the board	
Chase Manhattan Bank:					
Union Texas Petroleum	Schinn, Richard R		1973 to present		
Do	Connor, John T	Former president	1967 to present		
		Chairman of the board			
Chase Manhattan Bank, N.A.:					
Standard Oil Co. of Indiana	Swearingen, John E	Chairman of the board	1952 to present		1960 to present.
Do	Patterson, Herbert P		1970–72		1969–72.
Shell Oil Co	Cook, C. W		1973 to present		
Marathon Oil Co	Place, John B. M		1970–72		
Exxon Corp	Kappel, Frederick R		1966–70		1966–69.
Do	Jamieson, J. Kenneth		1964 to present		1965–74.
Diamond Shamrock Oil & Gas	Dilworth, J. Richardson		1969–73		
Crown Central Petroleum Corp	McNair, Malcom		1972 to present	Senior vice president	
Chemical Bank:					
Union Texas Petroleum	Nichols, C. W. Jr		1955 to present		
Texaco, Inc	McCall, Howard W		1971 to present		1960–73.
Do	Long, Augustus C	Chairman of the executive committee.	1950 to present		1965–70.
Standard Oil Co. of Indiana	Wood, Richard D		1973 to present		1974 to present.
Shell Oil Co	Spaght, M. E		1953 to present		
Mobil Oil Corp	Warner, Rawleigh, Jr	Chairman of the board	1964 to present		Present.
		Former president			
Marathon Oil Co	Place, John B. M		1970–72		
Exxon Corp	Piercy, George T		1966 to present		1971–74.
Do	Learson, T. Vincent		1969 to present		1971–74.
Amerada Hess Corp	Renchard, William S		1972	Chairman of the executive committee.	

TABLE 3-C.—SELECTED LEGAL AND FINANCIAL COMPANIES WITH MULTIPLE MEMBERSHIP ON PETROLEUM COMPANY BOARDS OF DIRECTORS

	Term with oil company	Title with other company
Baker & Botts law firm:		
Tenneco (John B. Baekin)	1972–74	
Tenneco (Malcom H. Lovett)	1959–72	Attorney.
Pennzoil (Baine P. Kerr)	1968 to present	Do.
Monsanto (Dillon Anderson)	1960–74	Partner.
Mesa (Robert L. Stillwell)	1969–74	Attorney, partner.
Kuhn Loeb & Co.:		
Getty Oil Co. (John M. Schiff)	1967 to present	Partner.
Cities Service Co. (Clifford W. Michel)	1963 to present	Do.
Burmah Oil, Inc. (A. E. Friedman)	1971–74	Do.
Lehman Bros.:		
Total Leonard, Inc. (James W. Glanville)	1966–70	Managing director.
Standard Oil of California (George W. Ball)		
Shell Oil Co. (William Blackie)	1964 to present	
Murphy Oil Co. (Edwin L. Kennedy)	1956–65	Partner.
Kerr McGee Corp. (Edwin L. Kennedy)	1965 to present	Managing director.
Husky Oil ,Ltd. (James William Glanville)	1969–72	Partner.
Getty Oil, Ltd. (Joseph A. Thomas)	1967 to present	Managing director, partner.

TABLE 3-D.—REPORTED AFFILIATIONS OF DIRECTORS OF OIL COMPANIES BY TYPE OF ECONOMIC ACTIVITY, 1964-74 (PERCENT)

Economic activity	20 largest	22 smaller	All
Agriculture	0.4257	0.9725	0.7144
Mining and quarrying	.8515	.3805	.6026
Coal	.1892	.2537	.2233
Construction	.4730	1.5645	1.0493
Food products, supermarkets, beverages, and tobacco	2.5544	1.9450	2.2326
Textiles	.2838	1.0148	.6698
Lumber and wood products	.1892	.2537	.2233
Paper and paper products	.4730	.4651	.4689
Chemicals, plastics, paint, and fertilizer	1.3718	2.9175	2.1880
Pharmaceuticals, soap, and cosmetics	.9934	.5074	.7368
Rubber, rubber products, and leather products	.1419	.1691	.1563
Glass	.4257	.1691	.2902
Stone, clay, tile, brick, cement, and concrete	.3784	.2537	.3126
Metal manufacturing and metal products	3.8789	4.4397	4.1750
Machinery	2.2706	1.1839	1.6968
Data systems, electronics, and photography	2.2233	1.1416	1.6522
Motor vehicles (automobiles, trucks, farm machinery)	1.5610	1.6913	1.6298
Recreational vehicles and equipment	.1892	.1268	.1563
Aerospace and aircraft construction	.3784	.3805	.3795
Railroads	.9461	.9725	.9600
Transit	.0946	.1691	.1340
Shipping and highway transport	.4257	.5497	.4912
Airlines and airports	.2365	.5920	.4242
Communications (radio, television, telephone, publishing)	2.2706	1.6913	1.9647
Electric and gas utilities, and water services	1.1826	1.4376	1.3173
Atomic energy	.0473	.1268	.0893
Retailing	.8515	.5920	.7144
Banking	14.3803	10.3171	12.2349
Insurance, assurance, reinsurance, retirement trusts	3.9735	8.4144	6.3184
Investment	6.2914	6.0888	6.1844
Real estate and development	.9934	1.6068	1.3173
Professional associations and institutes	1.1353	.5920	.8484
Industry associations, institutes, and congresses	4.2573	3.1290	3.6615
Research and development	1.5137	.8034	1.1386
Professional partnerships and groups	1.5137	2.1564	1.8531
Advertising	.0946	.0423	.0670
Hotels and resorts	.1419	.5497	.3572
Fine arts, libraries, and municipal amusements	2.9801	1.9450	2.4336
Medicine	3.2167	2.2833	2.7238
Educational institutions	9.1769	3.7632	6.3184
Foundations and funds	2.5544	2.1142	2.3219
Clubs, churches, charities, civic organizations, chambers of commerce	4.7304	3.6786	4.1750
Federal Government	4.7777	8.5412	6.7649
State and local Government	.5203	.2537	.3795
National interest groups	2.0814	.5497	1.2126
International councils and international interest groups	3.1220	.1268	1.5405
Unclassified fields and miscellaneous	7.2375	17.0825	12.4358

OWNERSHIP OF THE FIRMS SURVEYED

Sixty-two petroleum firms reported stockholders owning 1 percent or more of their outstanding common stock.[9] Appendix D reports the stockholders for each of the responding firms, the percentage of outstanding common stock owned,[10] and the organizations represented by the stockholder, where reported.[11] The information requested here differs from that reported to the Securities and Exchange Commission in two ways. First, the SEC requires a company to report owners having 10 percent or more of the company's securities including stock of each class while the survey requested companies to report owners of 1 percent or more of common stock. Second, the survey requested information with respect to beneficial interest, representation, and nominees. In these respects the survey data is superior to that available in other sources. However, we conclude that the response to this question as shown in tables 3–E, 3–F, and appendix D precludes an accurate description of ownership.

Table 3–E reports the stockholders, the percentage of stock owned and the organization represented by the stockholder for the 20 largest petroleum firms by sales for 1974.

Table 3–F lists the organizations which own stock in 2 or more of the 20 largest petroleum firms. For example, Cede & Co. is reported as a stockholder for 14 of the 20 largest firms. Cede & Co. is a clearing house for stock sellers and is listed as a representative for various banks and brokers, including the New York Stock Exchange and the Stock Clearing Corp. Thus, the actual owners remain unknown.

A further complication exists in determining ownership. Occidental Petroleum Corp., for example, lists five stockholders as owning 1 percent or more of their common stock. Occidental Petroleum also provided a breakdown of shares held in the name of Cede & Co., its largest stockholder. Among the 154 firms listed for Cede & Co. were Merrill Lynch, Pierce, Fenner and Smith, Inc., the Chase Manhattan Bank, Bankers Trust Co., and Manufacturers Hanover Trust Co., five of the major organizations owning stock in the largest petroleum firms. Merrill Lynch is listed by Occidental Petroleum as owning 853,921 shares, but another 3,742,293 shares are owned by Merrill Lynch in the name of Cede & Co.

Almost all of the major organizations owning stock in two or more of the largest petroleum firms are either nominees or brokers which, according to the response given by Standard Oil of California, "typically do hold stock for the account of and subject to the instructions of other beneficial owners for whom the nominee registration serves as a convenience." Pitt & Co., and Sior & Co. are nominees for Bankers Trust Co.; Cudd & Co. and Kane & Co. are hominees for the Chase Manhattan Bank; Sigler & Co. is a nominee for Manufacturers Hanover Trust Co.; Lerche & Co. is a nominee for the Bank of New York; Whitelaw & Co. is a nominee for the National City Bank of

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[9] As of Jan. 1, 1974.

[10] Occidental Petroleum Corp. reported numbers of shares rather than percentages. American Petrofina is the only company which distinguished between types of common stock.

[11] Holders of beneficial interest, where reported, are available in the original data entries.

Cleveland. Thus, there are basically only eight recorded stockholders (all large institutional investors) which own 1 or more percent of the outstanding common stock of 2 or more of the 20 largest petroleum firms.

Standard Oil of California made the following statement regarding disclosure of ownership:

> Our company is a Delaware corporation whose law provides for disclosure of stockholder accounts only to stockholders upon a showing of a proper purpose. With that exception it is the company's policy to keep such matters confidential. However, aside from the company policy, we feel that providing the subcommittee with the names, addresses, and percentage ownership of stock held by nominees or brokers would not be informative. Furthermore, such information if released to the public could be misleading to anyone who was not familiar with "nominee accounts".

Unless public disclosure becomes required, it will be impossible to determine who actually owns many of the firms in the industry, who controls the voting stock, and whether petroleum firms own stock in other petroleum firms.[12]

TABLE 3-E.—OWNERSHIP OF THE 20 LARGEST FIRMS BY SALES FOR 1974 [1]

Petroleum firm and stockholder	Percent of stock owned	Representative of—
Amerada Hess Corp.:		
Hess, Leon	20.000	
Cede & Co	6.000	Stock Clearing Corp.
Hess Fdn., Inc	5.700	
Lerche & Co	3.800	Bank of New York.
Kane & Co	2.500	Chase Manhattan Bank.
Sigler & Co	2.300	Manufacturers Hanover Trust.
Equitable Life Assurance Society, United States	1.900	
Ince & Co	1.500	Morgan Guaranty Trust Co. of New York.
Carothers & Clark	1.400	Bank of Delaware.
Calpers & Co	1.200	Bank of California, N.A.
Bark & Co	1.200	State Street Bank & Trust Co.
Cudd & Co	1.200	Chase Manhattan Bank, N.A.
Gepco	1.100	Prudential Insurance of America.
OTR	1.100	State Teachers Retirement Board of Ohio.
Ashland Oil, Inc.:		
Cede & Co	7.730	New York Stock Exchange brokers and, New York City banks.
Douglass & Co	2.200	Affiliated Fund, Inc.
Edal & Co	1.540	Puritan Fund, Inc.
Lerche & Co	1.800	Dreyfus Fund, Inc.
Trude & Co	3.890	
Atlantic Richfield Co.:		
Cede & Co	6.300	
Kane & Co	2.600	
Cudd & Co	2.200	
Trustees of Atlantic Richfield thrift plan	2.200	
Pitt & Co	1.800	
Sigler & Co	1.100	
Cities Service Co.:		
Cede & Co	6.840	Stock brokers, list unknown.
Bird & Co	6.230	Manufacturers Hanover Trust Co.
Sigler & Co	0.730	Do.
Tegge & Co	2.540	Morgan Guaranty Trust Co.
Wenonah Development Co	1.920	
Brown Bros. Harriman & Co	2.400	
Lerche and Co	1.260	

See footnotes at end of table.

[12] For a complete description of corporate ownership reporting, particularly the use of nominee accounts, and the need for public disclosure of corporate ownership, see: "Disclosure of Corporate Ownership," prepared by the Subcommittees on Intergovernmental Relations, and Budgeting, Management, and Expenditures of the Committee on Government Operations, U.S. Senate, U.S. Government Printing Office, Washington, D.C. Mar. 4, 1974.

TABLE 3–E.—OWNERSHIP OF THE 20 LARGEST FIRMS BY SALES FOR 1974 [1]—Continued

Petroleum firm and stockholder	Percent of stock owned	Representative of—
Continental Oil Co.:		
Cede & Co	4.030	Various brokers and banks.
Cudd & Co	1.260	
Lerche & Co	1.470	
Pace & Co	2.370	
Pitt & Co	3.290	
Salkeld & Co	4.090	
Exxon Corp.:		
Bankers Trust Co	1.800	
Bank of New York	1.700	
Cede & Co	3.100	Stock Exchange Central Certificate Service.
Chase Manhattan Bank	4.100	
Chemical Bank	1.200	
Exxon Corp. (treas. shares)	1.200	
Exxon Thrift Fund	2.000	
First National Bank of Boston	1.600	
Manufacturers Hanover Trust Co	1.800	
Morgan Guaranty Trust Co. of New York	2.400	
State Street Bank & Trust	1.000	
United States Trust Co	1.400	
Getty Oil Co.:		
Cede & Co	2.526	
J. Paul Getty	21.802	
J. Paul Getty as trustee	42.591	
Perc & Co	1.071	
Sior & Co	1.315	Bankers Trust Co
Pitt & Co	1.223	
Skelly Oil Co. (Getty):		
Carolyn S. Burford	1.130	
Cede & Co	1.640	
First & Co	3.320	Skelly Savings & Investment Plan.
Getty Oil Co	3.560	
Mission Corp [2]	72.530	
Gulf Oil Corp.:		
Cede & Co	7.070	Stock Clearing Corp.
Cost & Co	4.630	Mellon Bank, N.A.
Richard King, Mellon Foundation	1.020	Wimington Trust Co.
Lack & Lindsay	1.480	Do.
Mac & Co	6.160	Mellon Bank, N.A.
Paul Mellon	1.230	Wilmington Trust Co.
Scott & Co	5.250	Morgan Guaranty Trust Co.
Marathon Oil Co.:		
(No name given)	1.400	
Whitelaw & Co	5.400	National City Bank of Cleveland.
Mobil Oil Corp.:		
Pitt & Co	5.430	
Cede & Co	3.150	
Kane & Co	2.480	
Cudd & Co	1.600	
Mobil Oil Corp	1.430	
Carson & Co	1.150	
Trussal & Co	1.040	
Nabank & Co	1.000	
Occidental Petroleum Corp.:		
Hammer, Armand	[3] 1,073,144	
Cede & Co	[3] 14,751,745	
Merrill Lynch, Pierce, Fenner & Smith	[3] 853,921	
Ruch & Co	[3] 829,435	Swiss American Corp.
Settle & Co	[3] 1,410,179	Chase Manhattan Bank.
Phillips Petroleum Co.:		
Anderson & Co	1.046	
Atwell & Co	1.349	
Banner & Co	4.419	Phillips Petroleum Co. thrift plan.
Carban & Co	2.568	Do.
Kane & Co	1.525	
Merrill Lynch, Pierce, Fenner & Smith	1.575	
Sior & Co	1.360	
Shell Oil Co.:		
Broekman's Administrative Kanor, N.V	1.090	
Cede & Co	1.330	Various banks and brokerage houses.
Royal Dutch Petroleum Co	41.760	
Shell Transport & Trading Co., Ltd	27.800	
Sigler & Co	4.870	Manufacturers Hanover Trust.
Standard Oil of California: Yerba & Co	6.300	Crocker National Bank, San Francisco Calif.
Standard Oil of Indiana:		
Amer. Trad. and Prod. Corp	2.980	
Cede & Co	2.300	Stock Clearing Corp.
Finat & Co	7.580	First National Bank, Chicago Trust under Standard Oil of Indiana employees saving plan.
Gepco-Oneco-Quinco-Treco	1.340	Prudential Insurance Co. of America.
Kane & Co	1.680	Chase Manhattan Bank.

See footnotes at end of table.

TABLE 3–E.—OWNERSHIP OF THE 20 LARGEST FIRMS BY SALES FOR 1974 [1]—Continued

Petroleum firm and stockholder	Percent of stock owned	Representative of—
Standard Oil of Ohio:		
British Petroleum (Overzee) N.V	24.710	
Dean & Davis	1.280	Pension trust account.
Kane & Co	1.650	Pensions and other employee benefits.
Pitt & Co	1.300	Tax-qualified employee benefit trusts.
Sheldon & Co	1.100	
Whitelaw & Co	3.930	SOHIO employees investment plan and others.
Sun Oil Co.:		
Glenmede Trust Co	20.076	Pew Memorial Trust.
Do	18.565	
Walter C. Pew	2.229	
Texaco, Inc.: Superior Oil Co	1.330	
Tenneco, Inc.:		
Cede & Co	4.720	New York Stock Exchange.
Thrift & Co	4.030	Company profit-sharing plan.
Stone & Webster, Inc	1.540	Firm and customers.
Merrill Lynch, Pierce, Fenner & Smith	1.390	Do.
Union Oil of California:		
Cede & Co	8.400	Various brokers.
King & Co	1.500	First National City Bank (over 70 accounts).
Lerche & Co	1.100	Bank of New York.
Merrill Lynch, Pierce, Fenner & Smith	4.300	
Fivco, Forco, Gepco, Oneco, Quinco, Treco	2.500	Prudential Insurance Co.
Security Pacific National Bank	5.600	Union Oil employees incentive and profit-sharing plan.

[1] Entries in this table are as reported in questionnaire responses.
[2] Getty Oil Co. owns 88.96 percent of Mission Corp. which owns 72.53 percent of Skelly. Thus Getty owns 70.01 percent of Skelly in total. See Iannone, op. cit., pp. 189–190.
[3] Shares.

TABLE 3–F.—*Organizations owning 1 or more percent of the outstanding common stock of 2 or more of the 20 largest petroleum firms by sales for 1974* [1]

SECTION A.—ORGANIZATIONS LISTED AS NOMINEES FOR OTHER ORGANIZATIONS

Stockholder and petroleum firm	*Percent of stock owned*
Cede & Co.,[2] Box 20, Bowling Green Station, New York, N.Y. 10004:	
Amerada Hess Corp	6.000
Ashland Oil Co	7.730
Atlantic Richfield Co	6.300
Cities Service Co	6.840
Continental Oil Co	4.030
Exxon Corp	3.100
Getty Oil Co	2.526
Skelly Oil Co. (Getty)	1.640
Gulf Oil Corp	7.07
Mobil Oil Corp	3.150
Occidental Petroleum Corp.—14,751,745 shares	
Shell Oil Co	1.330
Standard Oil of Indiana	2.300
Tenneco, Inc	4.720
Union Oil of California	8.400
Cudd & Co., Chase Manhattan Bank, Box 1508, Church St. Station, New York, N.Y. 10008:	
Amerada Hess Corp	[3] 1.200
Atlantic Richfield Co	[4] 2.200
Continental Oil Co	[4] 1.260
Mobil Oil Corp	1.600
Kane & Co., Chase Manhattan Bank, Box 1508, Church St. Station, New York, N.Y. 10008:	
Amerada Hess Corp	[5] 2.500
Atlantic Richfield Co	2.600
Mobil Oil Corp	2.480
Phillips Petroleum Co	1.525
Standard Oil of Indiana	[5] 1.680
Standard Oil of Ohio	[6] 1.650

See footnotes at end of table.

TABLE 3–F.—*Organizations owning 1 or more percent of the outstanding common stock of 2 or more of the 20 largest petroleum firms by sales for 1974* [1]—Continued

SECTION A.—ORGANIZATIONS LISTED AS NOMINEES FOR OTHER ORGANIZATIONS—continued

Stockholder and petroleum firm	*Percent of Stock owned*
Lerche & Co., c/o Bank of New York, Box 11203, New York, N.Y. 10049:	
Amerada Hess Corp	[7] 3.800
Ashland Oil, Inc	[8] 1.800
Cities Service Co	1.260
Continental Oil Co	1.470
Union Oil of California	[7] 1.100
Pitt & Co., Bankers Trust Co., P.O. Box 244, Church St. Station, New York, N.Y. 10008:	
Atlantic Richfield Co	1.800
Continental Oil Co	3.290
Getty Oil Co	1.223
Mobil Oil Corp	[9] 5.430
Standard Oil of Ohio	[10] 1.300
Sigler & Co., Manufacturers Hanover Trust Co., 40 Wall St., New York, N.Y. 10015:	
Amerada Hess Corp	[11] 2.300
Atlantic Richfield Co	1.100
Cities Service Co	[11] 0.730
Shell Oil Co	[11] 4.870
Sior & Co., Bankers Trust Co., Box 704, Church St. Station, New York, N.Y. 10008:	
Getty Oil Co	[12] 1.315
Phillips Petroleum Co	1.360
Whitelaw & Co., c/o National City Bank, P.O. Box 6210–N, Cleveland, Ohio:	
Marathon Oil Co	[13] 5.400
Standard Oil of Ohio	[14] 3.930

SECTION B.—ORGANIZATIONS OWNING STOCK DIRECTLY OR THROUGH NOMINEES

Stockholder and petroleum firm	*Percent of Stock owned*
Bank of New York:	
Amerada Hess Corp	[15] 3.800
Exxon Corp	1.700
Union Oil of California	[15] 1.100
Chase Manhattan Bank: [16]	
Amerada Hess Corp	[17] 2.500
Amerada Hess Corp	[18] 1.200
Exxon Corp	4.100
Occidental Petroleum Corp.—1,410,179 shares. [19]	
Standard Oil of Indiana	[17] 1.680
Merrill Lynch, Pierce, Fenner & Smith:	
Occidental Petroleum Corp.—853,921 shares	
Phillips Petroleum Co	1.575
Tenneco, Inc	1.390
Union Oil of California	4.300

See footnotes at end of table.

TABLE 3–F.—*Organizations owning 1 or more percent of the outstanding common stock of 2 or more of 19 of the 20 largest petroleum firms by sales for 1974* [1]—Con.

SECTION B.—ORGANIZATIONS OWNING STOCK DIRECTLY OR THROUGH NOMINEES—continued

Stockholder and petroleum firm	*Percent of Stock owned*
Manufacturers Hanover Trust Co.:	
Amerada Hess Corp	[20] 2. 300
Cities Serivce Co	[21] 6. 960
Exxon Corp	1. 800
Shell Oil Co	[20] 4. 870
Morgan Guaranty Trust Co. of New York:	
Amerada Hess Corp	[22] 1. 500
Exxon Corp	2. 400
Cities Service Co	[23] 2. 540
Gulf Oil Corp	2. 250
Prudential Insurance Co.:	
Amerada Hess Corp	[24] 1. 100
Standard Oil of Indiana	[25] 1. 340
Union Oil of Calif	[26] 2. 500
State Street Bank & Trust Co.:	
Amerada Hess Corp	[27] 1. 200
Exxon Corp	1. 000

[1] Footnotes in this table refer to comments made in the responses to the questionnaire; for example, Kane & Co. (a nominee for Chase Manhattan Bank) was not listed as a nominee for Chase by every firm.

[2] Cede (Certificate Depository) and Co. is the depository nominee of the Depository Trust Co., which in 1974 was a wholly owned subsidiary of the New York Stock Exchange. On October 31, 1975, the New York Stock Exchange effected the initial sale of Depository Trust Co.'s capital stock. As of November 7, 1975, the New York Stock Exchange held 61% of Depository Trust's shares. See Committee on Government Operations, Subcommittee on Reports, Accounting and Management, "Corporate Ownership and Control," U.S. Government Printing Office, Washington, D.C., November 1975, pp. 4–5, 562–564.

[3] Cudd & Co. represents Chase Manhattan Bank, N.A.

[4] Holders of beneficial interest were listed as American Mutual Fund, Inc., Chemical Fund, Inc., Eberstadt Fund, Inc., Equity Fund, Inc., International Resources Fund and Investment Co. of America. America.

[5] Kane & Co. listed as representing the Chase Manhattan Bank.

[6] Kane & Co. represents SOHIO's pensions and other employee benefits program.

[7] Lerche & Co. represents Bank of New York.

[8] Lerche & Co. represents Dreyfus Fund, Inc.

[9] Holder of beneficial interest is the Mobil Oil Corp. Employee Savings Plan.

[10] Pitt & Co. represents tax qualified employee benefit trusts.

[11] Sigler & Co. listed as representing Manufacturers Hanover Trust Co.

[12] Sior & Co. listed as representing Bankers Trust Co.

[13] Whitelaw represents National City Bank of Cleveland.

[14] Whitelaw represents SOHIO Employees Investment Plan and others.

[15] Bank of New York represented by Lerche & Co.

[16] Includes Chase Manhattan Bank and Chase Manhattan Bank, N.A.

[17] Chase Manhattan Bank is represented by Kane & Co.

[18] Chase Manhattan Bank, N.A. is represented by Cudd & Co.

[19] Chase Manhattan Bank is represented by Settle & Co.

[20] Manufacturers Hanover Trust is represented by Sigler & Co.

[21] Manufacturers Hanover Trust is represented by Sigler & Co. (0.730 percent) and by Bird & Co. (6.230 percent).

[22] Morgan Guaranty Trust is represented by Ince & Co.

[23] Morgan Guaranty Trust is represented by Tegge & Co.; Morgan is reported as the custodian of these holdings of which 2.27 percent are known to be owned by the W. Alton Jones Foundation.

[24] Prudential represented by Gepco.

[25] Prudential represented by Gepco-Oneco-Quinco-Treco.

[26] Prudential represented by Fivco, Forco, Gepco, Oneco, Quinco, Treco.

[27] State Street Bank & Trust represented by Calpers & Co.

DEBT HOLDERS

Question four requires the firms surveyed to list the 10 largest holders of their debt securities,[13] the type and principal amount of debt held, the beneficial interest, if different from record ownership, and the organization represented by the debtholder—where known.

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[13] As of Jan. 1, 1974, securities having an original term of more than 5 years.

Appendix E lists the debt holders and the amount of the debt for each of the 63 firms which responded to question four. Information regarding types of securities, nominees, and representees is available in the original data entries.

Table 3–G lists the debt holders and the amount of the debt for the 20 largest petroleum firms by sales in 1974. Table 3–H is a list of the debt holders with 2 or more affiliations among the 20 largest firms. Metropolitan Life Insurance Co. is a debt holder for 13 of the 20 largest firms; Chase Manhattan Bank is a debt holder for 9 of the 20 largest and First National City Bank for 8 of the 20. While the amount of the debt is listed beside the petroleum firm, it is important to note that since many different types of securities were reported, the amount of the debt is often not directly comparable among firms.[14]

Table 3–I is a list of the number of debt holders shared among the 20 largest petroleum firms. The maximum number of debt holders that any given firm can share with at least 1 of the other 20 largest firms is usually 10 since the firms were only asked to report their 10 largest debt holders. (However, several firms reported more than 10 debt holders.) All 20 firms shared at least 3 debt holders with at least one other firm. Atlantic Richfield shared 9 of its 10 debt holders with at least 2 other firms; Tenneco and Union Oil of California shared 8 with at least 1 other firm; Amerada Hess, Gulf, Phillips Petroleum, and Occidental Petroleum shared 7 debt holders with at least 1 other firm.

TABLE 3–G.—*10 largest debt holders for the 20 largest firms by sales for 1974*

[In thousands of dollars]

Petroleum firm and debt holder	*Amount*
Amerada Hess Corp.:	
Metropolitan Life Insurance Co	241, 344
First National City Bank	50, 850
Chase Manhattan Bank	45, 850
Chemical Bank	43, 000
Equitable Life Assurance Society of the United States	23, 750
Morgan Guaranty Trust Co. of United States	20, 000
General Electric Co., I.G.E. Export Division	12, 387
Chicago Bridge & Iron Co	2, 582
Bay Hall Trust Ltd	2, 323
First National Bank of Chicago	1, 765
Ashland Oil, Inc.:	
Chase Manhattan Bank, N.A	42, 000
Cudd & Co	11, 310
Dresdner Bank of Germany	10, 345
Northern Petrochemical Co	6, 667
State of Ohio, treasurer, custodian	5, 750
Minnret & Co	5, 070
Ronis & Co	5, 000
Teachers Retirement System of Texas	5, 000
State of New York Comptroller Trust Common Retirement Fund	3, 885
Carothers & Clark	3, 750

[14] Among the types of securities reported by the survey firms are the following: unsecured notes, notes convertible into common stock, notes payable, promissory notes, non-interest-bearing secured notes, real estate mortgage notes, notes payable secured, notes payable unsecured, convertible subordinate debentures, subordinate debentures, sinking fund debentures, income debentures, mortgages, financial leases, bank loans, leases, sales/leaseback agreements, credit arrangements under special terms, term loans, revolving credit, indenture of mortgages, first mortgage bonds, cumulative preferred stock at given interest rates, sight drafts drawn on customers, non-interest-bearing loans, notes with fixed maturities, exploration and development advances and others.

TABLE 3-G.—*10 largest debt holders for the 20 largest firms by sales for 1974*—Continued

[In thousands of dollars]

Petroleum firm and debt holder	*Amount*
Atlantic Richfield Co.:	
Metropolitan Life Insurance Co	53, 542
Morgan Guaranty Trust Co. of New York	32, 105
State of California Public Employees Retirement System	29, 155
Chase Manhattan Bank, N.A	28, 409
State of California Teachers Retirement System	20, 460
New York Life Insurance Co	17, 092
Amsterdam-Rotterdam Bank, N.V	16, 892
State of New York Comptroller Trust Common Retirement Fund	14, 751
Commonwealth of Pennsylvania School Employees Retirement Fund	14, 425
Aetna Life Insurance Co	10, 634
Cities Service Co.:	
Metropolitan Life Insurance Co	49, 001
Peny & Co	34, 050
Parrish of Calcasieu Industrial Development Board	21, 000
Cudd & Co	12, 755
State of Illinois Teachers Retirement System	10, 000
Colorado Public Employees Retirement Association	8, 700
First City National Bank of Houston	7, 905
State of Florida Treasurer	7, 000
OTR	6, 100
Indiana State Teachers Retirement Fund	5, 700
Continental Oil Co.:	
Chase Manhattan Bank	50, 516
First National City Bank	43, 443
New York State Employees Retirement Fund	30, 975
Morgan Guaranty Trust Co. of New York	28, 570
Bankers Trust Co	25, 516
Mellon Bank	21, 123
Astilleros Espanola S.A	21, 152
First National City Bank—Zurich	16, 923
Clay & Co	16, 099
State of California Teachers Retirement System	10, 458
Exxon Corp.:	
State of New York Comptroller Trust Common Retirement Fund	29, 100
Metropolitan Life Insurance Co	23, 678
TRAL & Co	20, 000
John Hancock Mutual Life Insurance Co	17, 500
State of Florida, Treasurer	16, 000
Gerlach & Co	15, 414
Salkeld & Co	15, 587
South Carolina Retirement System Treasurer	13, 899
Ohio Public Employees Retirement Board	13, 250
Mutual Benefit Life Insurance Co	10, 500
Getty Oil Co.:	
Chase Manhattan Bank, Trustee	13, 591
Metropolitan Life Insurance Co	24, 907
First Pennsylvania Banking & Trust Co	26
Bank of America N.T. & S.A	5, 263
Universal Oil Products Co	986
John or Joan Savage	622
Thomas E. Prather	83
Robert E. Prather	51
William C. Prather	45
Leroy B. & Darlene Catham	37
Mildred M. Rutledge	135
Paul F. Rutledge	1, 215
Skelly Oil Co. (Getty):	
Continental Illinois National Bank & Trust, Chicago	75, 920
Morgan Guaranty Trust Co. of New York	25, 000
Northwest Mutual Life Insurance Co	1, 595
Metropolitan Life Insurance Co	1, 498

TABLE 3–G.—*10 largest debt holders for the 20 largest firms by sales for 1974*—Continued

[In thousands of dollars]

Petroleum firm and debt holder	*Amount*
Skelly Oil Co. (Getty)—Continued	
Reing & Co	250
Central Life Assurance Co	157
Summit Lumber Co	945
Small Business Administration	2, 543
First National Bank in Dallas	1, 582
Allen Development Association	310
Sabine Development Association	310
Gulf Oil Corp.:	
Metropolitan Life Insurance Co	161, 354
Mediobanca S.P.A	61, 500
John Hancock Life Insurance Co	39, 916
Comptroller of State of New York in Trust for Common Retirement Fund	33, 800
Chase Manhattan Bank, N.A	21, 500
State of California Public Employees Retirement System	11, 104
State of California Teachers Retirement System	9, 500
Bank of Tokyo	20, 000
Prudential Insurance Co. of America	15, 750
Commonwealth of Pennsylvania, School Employees Retirement Fund	11, 000
Commonwealth of Pennsylvania (other retirement funds)	4, 700
Anlagebank Zuerich	13, 540
Marathon Oil Co.:	
Indus. Comm. of Ohio, c/o State Treasurer	12, 892
State of New York Comptroller Trust for Common Retirement Fund	10, 000
State Treasurer of Florida	8, 355
Cudd & Co	6, 115
Ronis & Co	5, 000
Carothers & Clark	4, 020
Public Employees Retirement Board of Ohio	3, 000
Eagle Co	2, 885
Portefield and Co	2, 500
EMP & Co	2, 050
Mobil Oil Corp.:	
Metropolitan Life Insurance Co	264, 577
First National City Bank	96, 034
Societe Generale	29, 000
Pennsylvania School Employee Retirement Fund	23, 470
Harris Trust & Savings Bank	21, 015
State of California State Employee Retirement System	20, 000
Inst. per lo sviluppo eco. dell Italia Meridinale	17, 000
Sasebo Heavy Industries	16, 661
Banque Nationale de Paris	12, 000
South Carolina Retirement System	11, 700
Occidental Petroleum Corp.:	
Aetna Life Insurance Co	40, 200
John Hancock Mutual Life Insurance Co	31, 150
Mutual Life Insurance Co. of New York	29, 100
New York Life Insurance Co	26, 480
Nissho-Iwai Co., Ltd	25, 000
First National City Bank	18, 618
Equitable Life Assurance Society of the United States	17, 033
Connecticut General Life Insurance Co	20, 852
Teachers Insurance & Annuity Association of America	15, 000
Chase Manhattan Bank, N.A	11, 416
Phillips Petroleum Co.:	
Metropolitan Life Insurance Co	87, 932
First National City Bank	78, 153
State of California Retirement System	54, 500
Prudential Insurance Co. of America	43, 491
Chase Manhattan Bank	33, 932

TABLE 3–G.—*10 largest debt holders for the 20 largest firms by sales for 1974*—Continued

[In thousands of dollars]

Petroleum firm and debt holder	*Amount*
Phillips Petroleum Co.—Continued	
Peny & Co	32, 200
New York Life Insurance Co	25, 960
Getty Oil Co	24, 000
Continental Illinois National Bank	19, 576
Export-Import Bank of the United States	14, 946
Shell Oil Co.:	
State of California Teachers Retirement System	16, 448
State of California Employees Retirement System	15, 295
Orrin Henry & Co	14, 644
Peny & Co	29, 367
Ronis & Co	9, 385
State of California Teachers Retirement System	9, 338
Thoma & Co	9, 000
New York Life Insurance Co	8, 667
Natural Gas Pipeline Co	39, 685
Alberta & Southern Gas Co	11, 454
Hermann Hospital Estate	16, 750
Standard Oil of California:	
Societe Nationale de Credit a L'Industrie Bank	83, 490
State of California Teachers Retirement System	29, 873
State of New York Comptroller Trust Common Retirement Fund	46, 200
Peny & Co	28, 025
Caisse Gen. D'Epargne et Retraite	22, 110
Bank of International Settlements; Basle, Switzerland	21, 500
Oceanic Contractors, Inc	20, 000
Mediobanca, S.p.A	15, 806
State of California Retirement System	41, 073
Standard Oil of Indiana:	
Sumitomo Bank, Ltd., Tokyo	40, 500
Mitsubishi Bank, Ltd. Tokyo	30, 000
Societe Nationale de Credit a L'Industrie Bank	26, 715
Claymont Investing Co	25, 278
Metropolitan Life Insurance Co	24, 545
Peny & Co	17, 050
State of Georgia Teachers Association	14, 799
State of New York Comptroller Trust Common Retirement Fund	14, 500
C. A. England & Co	12, 673
Broward, Williams, State Treasurer, Florida	11, 661
Standard Oil of Ohio:	
Mathiason Tanker Industries	33, 500
Morgan Guaranty Trust Co. of New York	26, 511
First National City Bank	16, 957
Chase Manhattan Bank	15, 302
State of Ohio (Treasurer)	14, 700
State of Florida (Treasurer)	13, 500
Chemical Bank	12, 120
First National Bank of Chicago	11, 230
United States Trust Co	11, 033
Oswego Tanker Corp	9, 000
Sun Oil Co.:	
Chase Manhattan Bank	14, 286
Metropolitan Life Insurance Co	13, 178
Commonwealth of Pennsylvania School Employees Retirement Fund	11, 000
General Electric Pension Trust	10, 002
Trunkline Gas Co	9, 424
Commonwealth of Pennsylvania Employees Retirement Fund	7, 000
Peny & Co	6, 500
State of Florida, Treasurer	6, 000
Fidelity Union Trust Co	5, 745
State of Michigan, Treasurer	5, 632

TABLE 3–G.—*10 largest debt holders for the 20 largest firms by sales for 1974*—Continued

[In thousands of dollars]

Petroleum firm and debt holder	*Amount*
Tenneco, Inc.: [1]	
Prudential Life Insurance Co	116, 473
Metropolitan Life Insurance Co	92, 363
John Hancock Mutual Life Insurance	59, 152
Equitable Life Assurance Society of the United States	48, 240
First National City Bank	36, 747
Investors Diversified Services	29, 049
Aetna Life Insurance Co	28, 965
Teachers Insurance & Annuity Association of America	20, 000
Bankers Trust Co	19, 151
Connecticut General Life Insurance Co	17, 293
Texaco, Inc.:	
Metropolitan Life Insurance Co	263, 551
Comptroller of the State of New York	45, 309
Bankers Trust Co	27, 050
State of California (Treasurer)	25, 543
Industrial Bank of Japan, Ltd	25, 000
Travelers Insurance Co	21, 875
South Carolina, Treasurer	20, 400
First National City Bank	18, 691
United States Trust Co. of New York	16, 780
Public Employees Retirement of Ohio	13, 848
Union Oil of California:	
Metropolitan Life Insurance Co	36, 253
Peny & Co	25, 162
John Hancock Mutual Insurance Co	13, 965
State of New York Comptroller Trust Common Retirement Fund	8, 800
Cudd & Co	6, 621
State of Florida Treasurer	6, 400
State of California Public Employees Retirement System	5, 500
New York Life Insurance Co	5, 500
State of Ohio, Industrial Commission	5, 300
Atwell & Co	5, 063

[1] Tenneco, Inc., appears to have reported amounts in dollars rather than thousands of dollars. The figures reported here for Tenneco have been converted to thousands of dollars; otherwise Tenneco's debts would be in billions of dollars rather than the millions reported here.

TABLE 3–H.—*Debt holders with 2 or more affiliations among the 20 largest petroleum firms by sales for 1974*

[In thousands of dollars]

Debt holder and petroleum firms	*Amount*
Aetna Life Insurance Co.:	
Atlantic Richfield Co	10, 634
Occidental Petroleum Corp	40, 200
Tenneco, Inc	28, 965
Bankers Trust Co.:	
Continental Oil Co	25, 516
Tenneco, Inc	19, 151
Texaco, Inc	27, 050
Chase Manhattan Bank:	
Amerada Hess Corp	45, 850
Ashland Oil, Inc	42, 000
Atlantic Richfield Co	28, 409
Continental Oil Co	50, 516
Getty Oil Co	13, 591
Occidental Petroleum Corp	11, 416
Phillips Petroleum Co	33, 932
Standard Oil of Ohio	15, 302
Sun Oil Co	14, 286

TABLE 3–H.—*Debt holders with 2 or more affiliations among the 20 largest petroleum firms by sales for 1974*—Continued

[In thousands of dollars]

Debt holder and petroleum firms	*Amount*
Chemical Bank:	
Amerada Hess Corp	43,000
Standard Oil of Ohio	12,120
Commonwealth of Pennsylvania, School Employee Retirement Fund:	
Atlantic Richfield Co	14,425
Gulf Oil Corp	11,000
Mobil Oil Corp	23,470
Sun Oil Co	11,000
Comptroller of the State of New York in Trust for the Common Retirement Fund:	
Ashland Oil, Inc	3,885
Atlantic Richfield Co	14,751
Exxon Corp	29,100
Gulf Oil Corp	33,800
Marathon Oil Co	10,000
Standard Oil of California	46,200
Standard Oil of Indiana	14,500
Union Oil of California	8,800
Cudd & Co.:	
Ashland Oil, Inc	11,310
Cities Service Co	12,755
Marathon Oil Co	6,115
Union Oil of California	6,621
Equitable Life Assurance Society of the United States:	
Amerada Hess Corp	23,750
Occidental Petroleum Corp	17,033
Tenneco, Inc	48,240
First National Bank of Chicago:	
Amerada Hess Corp	1,765
Standard Oil of Ohio	11,230
First National City Bank:	
Amerada Hess Corp	50,850
Continental Oil Co	43,443
Mobil Oil Corp	96,034
Occidental Petroleum Corp	18,618
Phillips Petroleum Co	78,153
Standard Oil of Ohio	16,957
Tenneco, Inc	36,747
Texaco, Inc	18,691
John Hancock Mutual Life Insurance Co.:	
Exxon Corp	17,500
Gulf Oil Corp	39,916
Occidental Petroleum Corp	31,150
Tenneco, Inc	59,152
Union Oil of California	13,965
Metropolitan Life Insurance Co.:	
Amerada Hess Corp	241,344
Atlantic Richfield Co	53,542
Cities Service Co	49,001
Exxon Corp	23,678
Getty Oil Co	24,907
Skelly Oil Co	1,498
Gulf Oil Corp	161,354
Mobil Oil Corp	264,577
Phillips Petroleum Co	87,932
Standard Oil of Indiana	24,545
Sun Oil Co	13,178
Tenneco, Inc	92,363
Texaco, Inc	263,551
Union Oil of California	36,253

TABLE 3–H.—*Debt holders with 2 or more affiliations among the 20 largest petroleum firms by sales for 1974*—Continued

[In thousands of dollars]

Debt holder and petroleum firms	*Amount*
Morgan Guaranty Trust Co. of New York:	
Amerada Hess Corp	20,000
Atlantic Richfield Co	32,105
Continental Oil Co	28,570
Skelly Oil Co. (Getty)	25,000
Standard Oil of Ohio	26,511
New York Life Insurance Co.:	
Atlantic Richfield Co	17,092
Occidental Petroleum Corp	26,480
Phillips Petroleum Co	25,960
Shell Oil Co	8,667
Union Oil of California	5,500
Peny & Co.:	
Cities Service Co	34,050
Phillips Petroleum Co	32,200
Shell Oil Co	29,367
Standard Oil of California	28,025
Standard Oil of Indiana	17,050
Sun Oil Co	6,500
Union Oil of California	25,162
Prudential Insurance Co.:	
Gulf Oil Corp	15,750
Phillips Petroleum Co	43,491
Tenneco, Inc	116,473
Societe Nationale de Credit a L'Industrie Bank:	
Standard Oil of California	83,490
Standard Oil of Indiana	26,715
State of California, Public Employee Retirement System:	
Atlantic Richfield Co	29,155
Gulf Oil Corp	11,104
Mobil Oil Corp	20,000
Phillips Petroleum Co	54,500
Shell Oil Co	15,295
Standard Oil of California	41,073
Union Oil of California	5,500
State of California Teachers Retirement System:	
Atlantic Richfield Co	20,460
Continental Oil Co	10,458
Gulf Oil Corp	9,500
Shell Oil Co	25,786
Standard Oil of California	29,873
State of Florida, Treasurer:	
Cities Service Co	7,000
Exxon Corp	16,000
Marathon Oil Co	8,355
Standard Oil of Ohio	13,500
Union Oil of California	6,400
Sun Oil Co	6,000
South Carolina Retirement System Trust:	
Exxon Corp	13,899
Mobil Oil Corp	11,700
Teachers Insurance and Annuity Association of America:	
Occidental Petroleum Corp	15,000
Tenneco, Inc	20,000

TABLE 3–I.—20 LARGEST PETROLEUM FIRMS BY SALES FOR 1974: THE NUMBER OF DEBT HOLDERS (AMONG THE 10 LARGEST FOR EACH COMPANY) SHARED WITH AT LEAST ONE OTHER OF THE 20 LARGEST FIRMS

Rank by sales (1974)	Petroleum firm	Number of jointly shared debt holders [1]
1	Exxon Corp	5
2	Texaco, Inc	3
3	Mobil Oil Corp	5
4	Standard Oil of California	4
5	Gulf Oil Corp	7
6	Standard Oil of Indiana	3
7	Shell Oil Co	4
8	Continental Oil Co	5
9	Atlantic Richfield Co	9
10	Occidental Petroleum Corp	7
11	Tenneco, Inc	8
12	Phillips Petroleum Co	7
13	Union Oil of California	8
14	Sun Oil Co	5
15	Amerada Hess Corp	7
16	Ashland Oil, Inc	3
17	Marathon Oil Co	3
18	Cities Service Co	4
19	Getty Oil Co./Skelly Oil Co	4
20	Standard Oil of Ohio	6

[1] Since the firms were only asked to list the top ten debt holders, the maximum number of jointly shared debt holders possible is 10. However, Getty, Gulf, and Shell reported more than 10 debt holders.

UNDERWRITERS AND INVESTMENT BANKERS

Question 32 of the questionnaire asked the surveyed firms to list the date, amount, and type of any securities issued since 1964[15] as well as the names of underwriters or lead investment bankers for each issue. Fifty-eight petroleum firms responded to this question; approximately 110 underwriters and investment bankers were reported, only 26 of which were reported by more than 1 firm.

Table 3–J lists the underwriters and/or investment bankers reported by 17 of the 20 largest petroleum firms by sales for 1974. Amerada Hess Corp., Atlantic Richfield Co., and Mobil Oil Corp. did not respond to this question.

Table 3–K lists the 17 underwriters and investment bankers reported by 2 or more of 17 of the 20 largest petroleum firms. Multiple affiliations through underwriters among the largest petroleum firms were higher than for the entire sample, that is, of the 26 underwriters reported by 2 or more of the 58 firms responding, 17 were reported by 2 or more of the 16 largest firms.

TABLE 3–J.—*Underwriters and investment bankers reported by 17 of the 20 largest petroleum firms by sales for 1974* [1]

Petroleum firm	*Underwriter or investment banker*
Ashland Oil, Inc	Dillon Read & Co., Inc. Dominion Securities, Inc. Eastman Dillon Union Securities & Co. Lehman Bros.
Cities Service Co	First Boston Corp. First City National Bank of Houston. First National City Bank. Loeb, Rhoades & Co. Morgan Guaranty Trust Co.

[1] Amerada Hess Corp., Atlantic Richfield Co., and Mobil Oil Corp., did not respond to this question.

[15] This information will be available in the original data entries. The data cover the period 1964–74 for the firms surveyed.

TABLE 3–J.—*Underwriters and investment bankers reported by 17 of the 20 largest petroleum firms by sales for 1974* [1]—Continued

Petroleum firm	*Underwriter or investment banker*
Continental Oil Co	Bankers Trust Co. Cie International, S.A. Chase Bank, London. Chase Manhattan Bank. Continental Bank. Deutsche Bank. First National City Bank. First National City Bank, London. Investors' Mortgage Security Co., Ltd. J. Henry Schroder Wogg & Co., Ltd. Leyland Motor Corp., Ltd. Lloyds Bank Ltd. Mellon Bank. Morgan Guaranty Trust Co. Morgan Stanley & Co. National-Westminister Bank. Schroder, Wogg, London. Swiss Bank Corp. Swiss Credit Bank. Union Bank of Switzerland.
Exxon Corp	Morgan & Cie International, S. A. Morgan Stanley & Co.
Getty Oil Co	None.
Skelly Oil Co (Getty)	Eastman Dillon Union Securities & Co. Salomon Bros.
Gulf Oil Corp	Deutsche Bank, A.G. First Boston Corp. Harris & Partners Ltd. Metropolitan Life Insurance Co. Morgan & Cie International, S.A. Salomon Brothers. Swiss Bank Corp. Swiss Credit Bank. Union Bank of Switzerland. White, Weld, Ltd. Wood Gundy Securities, Ltd.
Marathon Oil Co	First Boston Corp.
Occidental Petroleum Corp	Allen & Co., Inc. A.G. Becker & Co., Inc. Eastman Dillon Union Securities & Co. Lazard Freres & Co. Lehman Bros. Reynolds & Co.
Phillips Petroleum Co	Bank of America National Trust and Savings Association First Boston Corp. Swiss Bank Corp. Swiss Credit Bank Union Bank of Switzerland
Shell Oil Co	Morgan Stanley and Co., Inc.
Standard Oil of California	Amsterdam-Rotterdam and Algemene Nederland Bank. Bank of California, N.A. Blythe & Co., Inc. Caisse General d'Epargne et de Retraite. Crocker National Bank. Dean Witter and Co. First National of Boston. Grand Bahama Port Authority. Mediobanca S.p.a. Microperi. P. N. Pertambangan Minjak dan Gas Bumi Nasional.

TABLE 3–J.—*Underwriters and investment bankers reported by 17 of the 20 largest petroleum firms by sales for 1974* [1]—Continued

Petroleum firm	*Underwriter or investment banker*
Standard Oil of Indiana	Morgan & Cie International, S.A. Morgan Grenfell & Co., Ltd. Morgan Stanley & Co. Swiss Bank Corp.
Standard Oil of Ohio	McDonald & Co. Morgan Guaranty Trust Co. Morgan Stanley & Co. F. S. Moseley & Co.
Sun Oil Co	Blythe Eastman Dillon & Co., Inc. Bowery Savings Bank. Eastman Dillon Union Securities & Co. First Boston Corp. Smith Barney & Co., Inc. Westdeutsche Landesbank Gironzentrale.
Tenneco, Inc	Bayerische Vereinsbank Blyth & Co., Inc. Commerzbank Aktiengesellschaft. Europartners Securities Corp. Deutsche Bank. Halsey, Stuart & Co., Inc. Loeb, Rhoades & Co. Paine, Webber, Jackson & Curtis, Inc. Sal. Oppenheim Jr. & Cie. Stone and Webster Securities Corp. S. G. Warburg & Co. White & Weld & Co., Inc.
Texaco, Inc	Deutsche Bank, A.G. Dillon Read. Morgan & Cie International, S.A. Morgan Stanley & Co. S. G. Warburg & Company, Ltd.
Union Oil of California	Banque Blythe & Cie. Dillon, Read & Co. S. G. Warburg & Co., Ltd. White, Weld & Co., Inc.

TABLE 3–K.—*Underwriters and investment bankers reported by 2 or more of 17 of the 20 largest petroleum firms by sales for 1974*

Underwriter or investment banker	*Petroleum firm*
Deutsche Bank	Continental Oil Co. Tenneco, Inc.
Deutsche Bank, A.G	Gulf Oil Corp. Texaco, Inc.
Dillon Read & Co., Inc	Ashland Oil, Inc. Texaco, Inc. Union Oil of California.
Eastman Dillon Union Securities & Co	Ashland Oil, Inc. Occidental Petroleum Corp. Skelly Oil Co. (Getty). Sun Oil Co.
First Boston Corp	Cities Service Co. Gulf Oil Corp. Marathon Oil Co. Phillips Petroleum Co. Sun Oil Co.

TABLE 3–K.—*Underwriters and investment bankers reported by 2 or more of 17 of the 20 largest petroleum firms by sales for 1974—Continued*

Underwriter or investment banker	*Petroleum firm*
First National City Bank	Cities Service Co. Continental Oil Co.
Lehman Bros	Ashland Oil, Inc. Occidental Petroleum Corp.
Loeb, Rhoades & Co	Cities Service Co. Tenneco, Inc.
Morgan & Cie International, S.A	Exxon Corp. Gulf Oil Corp. Standard Oil of Indiana. Texaco, Inc.
Morgan Guaranty Trust Co	Cities Service Co. Continental Oil Co. Standard Oil of Ohio.
Morgan Stanley & Co	Continental Oil Co. Exxon Corp. Shell Oil Co. Standard Oil of Indiana. Standard Oil of Ohio. Texaco, Inc.
Salomon Bros	Gulf Oil Corp. Skelly Oil Co. (Getty).
Swiss Bank Corp	Continental Oil Co. Gulf Oil Corp. Phillips Petroleum Co. Standard Oil of Indiana.
Swiss Credit Bank	Continental Oil Co. Gulf Oil Corp. Phillips Petroleum Co.
Union Bank of Switzerland	Continental Oil Co. Gulf Oil Corp. Phillips Petroleum Co.
S. G. Warburg & Co., Ltd	Tenneco, Inc. Texaco, Inc. Union Oil of California.
White, Weld & Co., Inc	Tenneco, Inc. Union Oil of California.

ACCOUNTING AND LAW FIRM AFFILIATIONS

Sixty-one petroleum firms responded to question 33 which asked them to list accounting and law firms retained from 1964 to 1974. Affiliations were reported with 93 law firms, only 4 of which were retained by more than 1 petroleum firm; of these 4, only 2 were retained by more than 1 firm at the same time. The responding firms reported affiliations with 24 accounting firms. Table 3–L lists multiple accounting firm affiliations. Peat, Marwick, Mitchell & Co. was retained by 16 petroleum firms and thus had the highest number of reported affiliations. Arthur Anderson & Co. and Price Waterhouse & Co. had the second highest number of affiliations, each being retained by 11 firms. Ernst and Ernst was retained by eight petroleum firms.

TABLE 3–L.—*Multiple accounting firm affiliations*

Accounting firm	*Retaining petroleum firm(s)*
Alexander Grant & Co	Exchange Oil and Gas Corp. Powerine Oil Co.

TABLE 3–L.—*Multiple accounting firm affiliations*—Continued

Accounting firm	*Retaining petroleum firm(s)*
Arthur Anderson & Co	Atlantic Richfield Co.
	Belco Petroleum Corp.
	Champlin Petroleum Co.
	Felmont Oil Corp.
	Getty Oil Co.
	Skelly Oil Co. (Getty)
	Kerr-McGee Corp.
	Mesa Petroleum Co.
	Occidental Petroleum Corp.
	Pennzoil Co.
	Tenneco, Inc.
	Texaco, Inc.
Arthur Young & Co	Atlantic Richfield Co.
	Continental Oil Co.
	McCulloch Oil Corp.
	Phillips Petroleum Co.
Bright, Shinn & Strange	Southland Oil Co.
Coopers & Lybrand	Atlantic Richfield Co.
	Sun Oil Co.
	Union Oil of California.
Doughty & Co	Southwestern Oil & Refining Co.
Doughty, Bennight & Southerland	Southwestern Oil & Refining Co.
Elmer Fox & Co	Clinton Oil Co.
Ernst and Ernst	Ashland Oil, Inc.
	Burmah Oil, Inc.
	Clark Oil & Refining Corp.
	Crown Central Petroleum Corp.
	General American Oil Co.
	General Crude Oil Co.
	Marathon Oil Co.
	McCulloch Oil Corp.
	Standard Oil of Ohio.
George S. Olive & Co	Rock Island Refinery Co.
Haskins & Sells	Burmah Oil, Inc.
	Champlin Petroleum Co.
	Commonwealth Oil Refining Co.
	Diamond Shamrock Oil & Gas.
	Monsanto Co.
	Pennzoil Co.
	Tenneco, Inc.
	Union Texas Petroleum.
Lybrand, Ross Bros. & Montgomery	Pennzoil Co.
	Total Leonard, Inc.
Main, LaFrentz & Co	El Paso Natural Gas Co.
Peat, Marwick, Mitchell & Co	American Petrofina, Inc.
	APCO Oil Corp.
	Champlin Petroleum Co.
	Cities Service Co.
	Delhi International Oil Corp.
	Farmland Industries, Inc.
	Forest Oil Corp.
	Hamilton Brothers, Inc.
	Hunt Oil Co.
	Husky Oil, Ltd.
	Louisiana Land & Exploration Co.
	Murphy Oil Corp.
	National Cooperative Refinery Association.
	Panhandle Eastern Pipeline Co.
	Southland Oil Co.
	Texas City Refining, Inc.

TABLE 3–L.—*Multiple accounting firm affiliations*—Continued

Accounting firm	*Retaining petroleum firm(s)*
Price Waterhouse & Co	Altantic Richfield Co.
	Burmah Oil, Inc.
	Diamond Shamrock Oil & Gas.
	Exxon Corp.
	Getty Oil Co.
	Gulf Oil Corp.
	Shell Oil Co.
	Standard Oil of California.
	Standard Oil of Indiana.
	Total Leonard, Inc.
	Union Texas Petroleum.
Raymond E. Wiltshire	Beacon Oil Co.
S. D. Leidesdorf & Co	Lion Oil Co.
Touche Ross & Co	Fletcher Oil & Refining Co.
	Southland Oil Co.
	Texas Oil & Gas Corp.
William A. Southerland	Southwestern Oil & Refining Co.

SUBSIDIARY HOLDINGS

Question 5 requested a listing of subsidiary corporations and business entities in which the reporting company held one percent or more of the outstanding common stock or ownership interest. To a considerable degree the information received is comparable to that which the Federal Energy Administration recently published in *The Petroleum Industry: A Report on Corporate and Industry Structure and Ownership*.[16] This publication includes many companies which were not part of the survey, and appears to be the most comprehensive summary of subsidiary ownership information presently available.

However, comparison of survey responses with this report for Standard of California indicates the potential for error in fact or interpretation. The FEA publication reports 285 subsidiaries for Standard of California, while the company reported 470 firms in which it owned 1 percent or more of the common stock. The company listed 210 firms in the survey which are not in the FEA report, and the FEA reports 25 firms which are not in the survey response.

Jointly held subsidiaries may be formed between major companies, as with Arabian American Oil Company in Saudi Arabia. The complexity of inter-relations may be shown by the Caltex Petroleum Corporation which is half owned by Standard of California and by Texaco. Caltex, operating in foreign countries, has 66 subsidiaries of its own (according to the FEA report), or perhaps 90 subsidiaries (according to the Standard of California survey response). In financial reports, Texaco includes one-half of Caltex revenues in reported Texaco revenues. Thus Caltex contributed one-sixth of Texaco's 1974 revenues. But Standard of California reports its half share of Caltex's net profit as revenue to Standard of California.[17]

Published reports of joint activity in the industry are probably unable to accurately delineate families of subsidiaries of major companies and joint ventures formed between subsidiary members of

[16] Iannone, *op. cit.*
[17] Sources: Annual reports, Dun and Bradstreet.

major families. The consequence of this missing information is necessarily to understate the degree of cooperation between major companies.

A uniform method of defining and reporting subsidiary ownership, revenues, and profit may be the only means to resolve this problem.

SELECTED FINANCIAL DATA

Question 34 in the survey was intended to elicit data which would be useful in describing certain financial characteristics of the industry. The subjects involved are: (1) relative investment and profitability in each major stage of operations: exploration, development, and production, raw product gathering and transportation, refining, finished product transportation, and marketing; (2) relative investment and profitability in petroleum and natural gas; (3) relative investment and profitability in domestic and foreign operations. These data, if available, would provide the basis for analyzing the interaction of industry structure and taxation.

As foreign petroleum becomes increasingly important, separating it from the domestic sector provides a means to measure total corporate response to change in investment incentives.

TABLE 3-M.—NET INVESTMENT, GROSS INVESTMENT, GROSS REVENUES, OPERATING COSTS, AND PRETAX PROFITS FOR FOREST OIL, DIAMOND SHAMROCK, AND CITIES SERVICE OIL COMPANIES, 1973

[In thousands of dollars][1]

	Net investment	Gross investment	Gross revenues	Operating costs	Pretax profits
Domestic:					
(1) Oil and gas exploration, development, and production:					
Forest Oil	248,047	363,134	31,999	33,526	(1,527)
Diamond Shamrock	116,195	178,446	24,893	28,951	(4,058)
Cities Service	795,003	1,343,477	461,781	305,534	156,247
(2) Crude petroleum gathering and transmission:					
Forest Oil	200	733	93	57	36
Diamond Shamrock [2]	32,789	69,980	131,663	118,401	13,262
Cities Service	34,585	65,313	14,248	9,819	4,429
(3) Refined product transportation:					
Diamond Shamrock	17,464	22,311	3,950	2,281	1,669
Cities Service [3]	(2,838)	(2,838)	2,879	0	2,879
(4) Natural gas gathering and transportation:					
Cities Service	267,767	436,416	187,178	154,960	32,218
(5) Refined product marketing: Cities Service [4]	518,059	860,979	1,090,640	1,126,272	(35,632)
Foreign:					
(6) Oil and gas exploration, development, and production:					
Forest Oil	17,931	24,256	1,763	1,309	454
Diamond Shamrock	1,069	1,069	0	792	(792)
Cities Service	77,970	132,861	28,176	37,660	(9,484)
(7) Refined product marketing: Cities Service	20,038	20,038	46,169	44,280	1,889
Totals:					
Forest Oil	266,178	388,123	33,855	34,892	(1,037)
Diamond Shamrock	167,517	271,806	160,506	150,425	10,081
Cities Service	1,710,584	2,856,246	1,831,071	1,678,526	152,546
Total	2,144,279	3,516,175	2,025,432	1,863,843	161,590

[1] Numbers in parentheses represent negative amounts.
[2] Includes domestic refining and marketing.
[3] Investment and earnings in affiliated companies.
[4] Includes petroleum refining.

TABLE 3-N.—PRETAX PROFIT AS A PERCENT OF NET INVESTMENT, 1964-73

Year	Domestic oil and gas exploration, development and production			Domestic crude petroleum gathering and transportation		Domestic refined product transportation		Domestic marketing and refining		Domestic natural gas gathering and transportation	Foreign oil and gas exploration and development			Foreign refined product marketing
	DS	FO	CS	FO	CS	DS	CS	DS[1]	CS	CS	DS	FO	CS	CS
1964	NA	2.8	12.4	41.4	36.9	23.4	20.9	NA	−9.9	10.8	None	2.7	11.5	0
1965	NA	1.7	12.8	31.5	43.0	23.9	43.7	NA	−5.4	11.1	None	7.7	5.9	−1,066.7
1966	NA	1.4	11.8	17.4	50.5	25.0	79.0	NA	0	12.8	None	7.7	2.9	−13.5
1967	NA	−.8	10.4	14.2	28.0	31.0	104.2	NA	−.1	12.5	None	6.1	.8	−26.1
1968	2.7	−2.1	10.2	8.9	24.2	34.8	66.0	19.5	−2.5	12.0	−24.3	4.4	11.1	−25.8
1969	2.2	−1.8	10.5	4.7	23.3	11.6	67.0	22.5	−.9	11.2	−27.0	1.5	8.3	−1,500.0
1970	1.5	−2.0	11.7	10.2	23.6	7.5	72.7	27.2	−2.5	13.5	−56.4	−1.9	3.1	2.4
1971	−.5	−1.2	13.3	16.0	17.2	7.7	403.2	23.6	−6.9	11.7	−66.8	4.7	4.8	−18.3
1972	−2.3	.1	15.0	17.5	13.6	9.8	(2)	29.6	−6.4	12.8	−22.8	2.5	−5.6	−2.3
1973	−3.5	−.6	19.7	18.0	12.8	9.6	(2)	40.4	−6.9	12.0	−74.1	2.6	−12.2	9.4

[1] Includes domestic marketing and domestic crude gathering and transportation.
[2] Approximately $3,000,000 in pretax profit with no positive net investment.

DS is Diamond Shamrock Oil and Gas Company, FO is Forest Oil Corporation, and CS is Cities Service Company.

Separation by activity is particularly useful in two additional ways. First, it permits application of different analyses to the natural gas industry and petroleum production which differ markedly in degree and type of regulation. Second, disaggregation of investment expenditures separates tangible plant and equipment from stock market and other investments unrelated to petroleum. In total, this breakdown recognizes that investment response is likely to differ by activity and permits measurement by company.

The relative importance of any single activity varies from company to company. Respondents ranged in size from the fully integrated majors (Texaco, Exxon, etc.) to those engaged in a single activity, natural gas transportation, for example. Consequently, to examine corporate activity in aggregate blurs measurement simply because different size companies behave differently when forming internal investment, pricing, and tax policies. The alternatives are greater if a company has the resources to expand or contract a given activity.

To illustrate these differences, three companies were selected by examining asset size and investment diversification. All larger major oil companies had higher degrees of aggregation in their responses and some failed to respond to this question at all. All three companies discussed here have a foreign sector and engage in at least three different activities. Forest Oil Company has oil and gas exploration, development, and production in domestic and foreign sectors. In addition it has a rather minor investment in domestic crude petroleum gathering and transmission (see Table 3–M). Diamond Shamrock, in addition to the above, has refinery operations. Cities Service was selected as a large vertically integrated corporation that can control its product from exploration and development to final retail marketing and had the best response of major companies.

Each firm was requested to submit data as reported in the company's financial records. As a consequence, the definitional categories varied according to the particular accounting techniques used. Generally, net investment is defined as total assets, and gross investment equals net investment (total assets) plus depreciation, amortization and depletion. Gross revenue is the summation of all receipts, sales, and exchanges in the fiscal year. Operating costs are expenses incurred in maintaining corporate activity. Pre-tax profits are gross revenues less operating costs. Some of the figures in Table 3–M may deviate from reports made elsewhere. The figures in this table are exactly as reported in the survey response.

In domestic oil and gas exploration, development, and production activity for 1973, Forest Oil and Diamond Shamrock both reported losses. Diamond Shamrock's investments were less than half of Forest Oil's, its operating costs were about as large and gross revenues were slightly less than those figures reported by Forest Oil. The loss reported by Diamond Shamrock, however, was almost three times as large. Cities Service, on the other hand, reported over $156 million in pre-tax profits in this activity for the same year.

In the domestic refined product transportation activity for 1973, Diamond Shamrock had a $17.5 million net investment and reported over $1.5 million in pre-tax profits. Cities Service had no net investment. Its assets in this category had been depreciated, depleted, or amortized below basis, yet its pre-tax profits were nearly twice as large as Diamond Shamrock's.

Selection of one company to exemplify investment diversification would be ideal, particularly if the survey data were augmented by outside information. No single company, however, had the necessary accounting breakdowns to provide this much detail. Further, inter-company differences are at least as important as internal investment and pricing policies.

To exemplify these inter-company differences, Table 3–N presents pre-tax profits as a percent of net investment by activity and company. Forest Oil takes its highest return to net investment on its domestic crude gathering and transportation system. Cities Service and Diamond Shamrock take their highest returns from refined product transportation. All three have low or negative returns from foreign operations.[18] Only Cities Service has a significant return to its domestic oil and gas exploration, development, and production activity.

The figures reported in these tables, however, suffer from incomparability. Diamond Shamrock includes its domestic crude gathering and transportation system with refining. Cities Service includes petroleum refining with domestic refined product marketing. Forest Oil reported its pre-tax profits with all depreciation and depletion deductions taken.[19]

In total, most companies use different accounting procedures and group their activities differently. Further, Texaco, Tenneco, Exxon, Atlantic Richfield, Standard of California, and Standard of Ohio failed to provide any figures that were usable, claiming an inability to separate investment, costs, and revenues by activity. As a result there exist substantial gaps in the data, particularly since these are some of the largest companies in the industry. The survey data is primarily in the same format as annual report data as is shown by Table 3–O.

The significance of these tax accounting rules upon apparent profitability in petroleum and non-petroleum activities may be shown by reference to Cities Service. Cities Service is engaged in finding, producing, manufacturing, and distributing energy and chemical products. Its principal enterprises include petroleum and natural gas, natural gas transmission, petrochemicals, industrial chemicals, metals, and marine transport. The survey indicates substantial investment (36 percent) by Cities Service in petrochemical, marine transport, and mining facilities. Further, Table 3–O indicates that it receives nearly 80 percent of its pre-tax profits from these activities. This disproportionate contribution to net income is a consequence of depreciation and depletion deducted from pre-tax oil and gas profits. As a result, the pre-tax profit figures reported for petroleum and gas activities in the survey appear disproportionately smaller.

Another part of the survey addressing tax-related investment is that portion of question 6 reporting joint ventures in oil and gas production. Partners may apportion profits, expenses, and responsibilities as they see fit. If 50 individuals own a partnership, or an interest in a partnership, or stock in a corporation that has a limited interest

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[18] We were unable to ascertain from the survey data which specific tax provisions were used by these 3 companies for 1973 but we presumed these included: foreign tax credits, depletion, expensing preferences, and possibly the Domestic International Sales Corporations and the Less Developed Country Corporations provisions.

[19] Examination of pre-tax profits for Cities Service and Diamond Shamrock were so low that we concluded that depreciation and depletion were also deducted from pre-tax profits for these companies as well.

in a partnership, then receipts and expenses may be apportioned as such partners agree. Most often, the limited partners forgo an active interest in the management of the partnership and receive tax deductions that are already incurred. The company selling partnerships is in effect selling immediate tax deductions, exploration and development expensibles, and in addition a possibility of a very successful venture.

American Petrofina was one of the few companies that submitted a list of all its partners in well ownership in response to question 6. The list for domestic wells in 1970 is slightly more than 600, three-fourths of which appear to be individuals or estates.[20] The financial information does not reveal the nature or extent of multiple ownership by activity.

TABLE 3-0.—A COMPARISON OF SURVEY RESPONSE WITH MOODY'S INDUSTRIAL AND ANNUAL REPORTS, 1973

[In thousands of dollars]

Companies	Net investment	Gross investment	Gross revenues	Operating costs	Pretax profit	Pretax profit as percent of net investment [2]
(a) Diamond Shamrock survey response	167,517	271,806	160,506	150,425	10,081	6.017
Moody's	457,836	853,302	667,063	594,321	72,742	15.888
(b) Forest Oil survey response	266,178	388,123	33,855	34,892	(1,037)	—.389
Moody's	268,238	389,271	33,855	34,891	(1,036)	—.386
(c) Cities Service survey response	1,710,584	2,856,246	1,831,071	1,678,526	152,546	8.917
Moody's	2,659,564	3,097,211	2,034,627	1,317,716	716,911	26.955

[1] The survey seeks estimates for the petroleum activities of each company. Moody's Industrial Reports include all activities whether related to petroleum or not. Discrepancies in these figures may result from aggregation and interpretation by the respondents.

[2] Pretax profit figures are reported in the survey with depletion and depreciation deductions taken. To make the data conformable, the Moody's figures are likewise reported.

The Tax Reduction Act of 1975 attempts to reduce or remove several of the preferential tax provisions relating to oil. As of January 1, 1975, the percentage depletion allowance of 22 percent for oil and gas wells has been repealed, except for certain natural gas wells and a limited number of small independent producers. For foreign operations, the act restricts the use of foreign tax credits from foreign oil extraction income and from foreign oil related income. The amount of payments of foreign taxes creditable against U.S. tax liability on foreign oil income will be limited to 52.8 percent of tax liability in 1975 and drop to 50 percent from 1977 and thereafter. Domestic International Sales Corporation benefits are denied for sales after March 18, 1975, of energy exports and products subject to export control. The act also repeals the exception from subpart F rules that had permitted the deferral of taxation of foreign-base company income that was reinvested in less developed countries. Previously the latter two provisions enabled corporations to reduce tax liability on qualified foreign income with the possibility of deferring it indefinitely. The investment tax credit was increased from 7 to 10 percent for qualified investments but the Tax Reduction Act of 1975 denies any investment credit for foreign drilling rigs placed in use after 1975 outside the northern half of the Western Hemisphere.

[20] However, this figure only reflects limited partnerships directly with the company. It is possible to buy limited partnerships in limited partnerships.

It has been estimated that the Tax Reduction Act of 1975 will increase oil company taxes by $1.7 billion for percentage depletion and $100 million for changes in the foreign provisions. However, the net effect from the Act will be less because (1) the investment tax credit was increased, and (2) the oil companies may be able to plan to use the existing deductions more efficiently. Considering the major categories noted above and the impact of the intangible drilling expense write-off, one estimate of the magnitude of current petroleum industry tax reductions is in excess of $4 billion in 1975.[21]

Accurate industry financial data is necessary for two major public purposes. One purpose is the accurate prediction of revenue changes associated with tax code revisions. A second need for these data is in the empirical examination of the effects of the tax provisions upon reserves, production, and consumption. Whether these special tax provisions achieve their purported purposes is in part a question of empirical analysis. The Federal Energy Administration's proposed "Petroleum Company Financial Report" requests the appropriate financial data.[22] It should be made available to the Congress and to the public for both of these purposes to be served.

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[21] Jane Gravelle, Library of Congress, "Tax Subsidies in the Oil Industry," prepared for the Special Subcommittee on Integrated Oil Operations of the Senate Committee on Interior and Insular Affairs, December 1975.

[22] Federal Energy Administration, "Petroleum Company Financial Report," Federal Register, Sept. 22, 1975, 40:184, p. 43612.

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IV. Production and Reserves

Question 6 requested the number of oil and gas wells owned and gross and net production of oil and natural gas in Petroleum Administration for Defense (PAD) districts and foreign countries for the years 1964–1973. This section will deal only with data for the U.S. for the years 1971–1973. Foreign data and data for years prior to 1971 were too incomplete to provide useful information.

OIL AND GAS WELLS

Tables 4–A and 4–B list total and joint U.S. oil wells owned by major and non-major petroleum firms for the years 1971–73. (Major refers to one of the 20 largest petroleum firms by sales for 1974.) Tables 4–C and 4–D list total and joint U.S. gas wells owned by major and non-major petroleum firms for the years 1971–73. Total wells are all wells in which a firm owns an interest; joint wells are those wells owned with other firms.

For the 12 responding firms, joint oil wells averaged about 68% of total wells for the years 1971–73. This percentage is underestimated, however, because Standard of Indiana and Sun Oil only reported data on company-operated wells. Joint oil wells averaged 76% of total oil wells for the 24 smaller companies reporting 1971–73 data; if one company—Pennzoil—is excluded from the calculation, joint oil wells are 85% of total oil wells.

Joint ownership is somewhat less for gas wells for both major and non-major petroleum firms. Joint gas wells averaged 52% of total gas wells for major firms, although again this is somewhat underestimated because Standard of Indiana and Sun only reported data on company-operated wells. Joint gas wells averaged 56% of total wells for non-major firms for 1971–73.

TABLE 4–A.—U.S. OIL WELLS OWNED BY MAJOR [1] PETROLEUM FIRMS, 1971–73

[Number of wells]

Company name	1971		1972		1973	
	Total wells [2]	Joint wells [2]	Total wells [2]	Joint wells [2]	Total wells [2]	Joint wells [2]
Ashland Oil, Inc	6,545	3,197	6,878	4,772	6,471	4,867
Cities Service Co	16,276	11,633	16,696	11,421	14,715	10,818
Exxon Corp.[3]	29,526	14,988	28,564	14,989	26,694	14,201
Gulf Oil Corp	31,734	21,636	30,907	21,074	31,196	21,517
Marathon Oil Co	19,097	14,845	18,642	14,472	17,818	13,787
Occidental Petroleum Corp	357	284	375	307	359	294
Shell Oil Co	25,556	16,276	25,309	16,448	24,796	16,180
Standard Oil of California [4]					11,168	3,298
Standard Oil of Indiana [5]	12,561	6,630	12,426	6,611	12,557	6,822
Standard Oil of Ohio	6,995	6,526	6,969	6,576	6,664	6,292
Sun Oil Co.[5]	7,711	3,437	7,024	3,001	6,809	3,039
Texaco, Inc	56,169	42,717	56,539	43,316	55,522	42,813
Total, all companies	212,527	142,169	210,325	142,989	214,769	143,928
Total, all companies reporting 1971–73 data:[6]	212,527	142,169	210,325	142,989	203,601	140,630
Joint wells as a percent of total, all companies reporting 1971–73 data:[6]	67		68		69	

[1] Companies listed are those reporting companies among the 20 largest petroleum firms by sales for 1974.
[2] Total wells are all wells in which the firm owns an interest; joint wells are wells owned with others.
[3] Exxon reported only an average joint interest for the United States according to Exxon- and partner-operated wells.
[4] Socal reported wells for 1973 only.
[5] Company reported company-operated wells only.
[6] Socal is excluded because it only reported data for 1973.

TABLE 4-B.—U.S. OIL WELLS OWNED BY NON-MAJOR[1] PETROLEUM FIRMS, 1971-73

[Number of wells]

Company name	1971		1972		1973	
	Total wells[2]	Joint wells[2]	Total wells[2]	Joint wells[2]	Total wells[2]	Joint wells[2]
American Petrofina, Inc	9,379	8,454	9,220	8,246	6,696	5,910
Apco Oil Corp	3,533	3,404	3,465	3,346	4,612	4,488
Burmah Oil & Gas	3,020	2,670	3,030	2,761	3,039	2,791
Clark Oil & Refining Corp	82	80	80	80	92	92
Clinton Oil Co	3,368	2,450	3,368	2,424	3,021	2,140
Crown Central Petroleum Corp	1,205	116	1,191	121	1,231	125
Diamond Shamrock Oil & Gas Co.[3]	960	261	960	267	975	294
El Paso Natural Gas Co.[4]	39	24	42	28	46	32
Exchange Oil & Gas Corp	89	74	137	112	134	109
Forest Oil Corp	2,669	2,514	2,608	2,456	2,642	2,503
General American Oil Co. of Texas[5]					6,793	5,878
General Crude Oil Co	2,949	2,283	2,987	2,316	3,012	2,304
Hunt Oil Co.[6]	313	190	144	32	197	29
Lone Star Gas Co	2,251	2,097	2,268	2,114	2,277	2,123
Louisiana Land & Exploration Co	541	532	571	552	458	429
Mesa Petroleum Co.[5]					308	286
Monsanto Co	2,818	2,595	2,587	2,415	2,443	2,239
Panhandle Eastern Pipeline Co	2,203	1,916	1,871	1,574	1,830	1,565
Pennzoil Co	7,977	2,376	8,116	2,392	8,168	2,502
Southwestern Oil & Refining Co	22	22	22	22	22	22
Tesoro Petroleum Corp	751	350	773	417	706	309
Texas City Refining, Inc	67	58	64	55	91	52
Texas Oil & Gas Corp	398	283	286	202	182	128
Total Leonard, Inc	32	32	35	35	37	37
Union Texas Petroleum (Allied Chemical)	5,637	5,581	5,692	5,641	5,770	5,722
Total all companies	50,303	38,372	49,517	37,608	54,782	42,190
Total companies reporting 1971-73 data[7]	50,303	38,372	49,517	37,608	47,681	36,026
Joint as a percent of total, companies reporting 1971-73[7]	76		76		76	
Joint as a percent of total, all companies reporting 1971-73[7], excluding Pennzoil Co	85		85		85	

[1] All firms excluding the 20 largest by sales for 1974.
[2] Total wells are all wells in which the company owns an interest; joint wells are wells owned with others.
[3] Diamond Shamrock did not specify the number of joint wells for PAD 3 in 1971; they were assumed to be the same as for 1973.
[4] Data for Odessa Natural Corp. (a subsidiary) were excluded because of data discrepancies.
[5] 1973 data only.
[6] Hunt's reported gross wells were added to joint wells to get a total gross figure because in some cases joint wells were greater than gross.
[7] Excludes General American Oil and Mesa Petroleum because both only reported 1973 data.

TABLE 4-C.—U.S. NATURAL GAS WELLS OWNED BY MAJOR[1] PETROLEUM FIRMS, 1971-73

[Number of wells]

Company name	1971		1972		1973	
	Total wells[2]	Joint wells[2]	Total wells[2]	Joint wells[2]	Total wells[2]	Joint wells[2]
Ashland Oil, Inc	2,008	452	2,131	559	2,175	567
Cities Service Co	3,421	1,257	3,396	1,292	3,310	1,345
Exxon Corp.[3]	4,646	2,071	4,393	1,823	4,427	1,824
Gulf Oil Corp	3,143	2,063	3,200	2,052	3,207	2,070
Marathon Oil Co	1,325	1,146	1,165	987	1,061	884
Occidental Petroleum Corp	191	170	173	153	175	158
Shell Oil Co.[4]	1,734	1,072	1,829	1,157	1,828	1,147
Standard Oil of California[5]					606	275
Standard Oil of Indiana[4,6]	2,947	1,297	3,126	1,314	3,334	1,344
Standard Oil of Ohio	460	419	443	406	435	397
Sun Oil Co.[6]	1,555	725	1,440	672	1,377	642
Texaco, Inc	4,669	3,003	4,779	3,019	4,952	3,136
Total all companies	26,126	13,675	26,075	13,434	26,887	13,789
Total all companies reporting 1971-73 data[7]	26,126	13,675	26,075	13,434	26,281	13,513
Joint wells as percent of total, all companies reporting 1971-73 data:[7]	52		52		51	

[1] Companies listed are those reporting companies among the 20 largest petroleum firms by sales for 1974.
[2] Total wells are all wells in which the firm owns an interest; joint wells are wells owned with others.
[3] Exxon reported only an average joint interest for the entire United States, according to Exxon- and partner-operated wells.
[4] Excludes natural gas condensate.
[5] 1973 data only.
[6] Data are for company-operated wells only.
[7] Socal is excluded because it only reported 1973 data.

TABLE 4-D.—U.S. NATURAL GAS WELLS OWNED BY NON-MAJOR[1] PETROLEUM FIRMS, 1971–73

[Number of wells]

Company name	1971		1972		1973	
	Total wells[2]	Joint wells[2]	Total wells[2]	Joint wells[2]	Total wells[2]	Joint wells[2]
American Petrofina, Inc	307	229	283	221	347	297
Apco Oil Corp	392	378	385	372	513	499
Burmah Oil & Gas	168	144	175	147	184	159
Clark Oil & Refining Corp	18	18	16	16	14	14
Clinton Oil Co	552	356	552	365	527	353
Crown Central Petroleum Corp	261	162	257	162	260	167
Diamond Shamrock Oil & Gas Co	842	226	875	211	908	230
El Paso Natural Gas Co.[3]	4,353	1,872	4,517	1,937	4,856	2,084
Exchange Oil & Gas Corp	133	133	144	144	146	146
Forest Oil Corp	195	179	207	185	238	193
General American Oil Co. of Texas[4]					556	495
General Crude Oil Co	454	409	495	446	541	489
Hunt Oil Co.[5]	32	16	33	15	24	17
Lone Star Gas Co	775	226	784	235	835	285
Louisiana Land & Exploration Co	80	80	92	92	101	100
Monsanto Co	812	763	818	59	826	766
Panhandle Eastern Pipeline Co	1,247	576	1,179	529	1,326	641
Pennzoil Co	1,829	848	1,816	842	1,821	871
Southwestern Oil & Refining Co	16	16	12	12	11	11
Tesoro Petroleum Corp	22	9	38	17	52	41
Texas Oil & Gas Corp	577	426	667	491	745	558
Total Leonard, Inc.[6]	0	0	1	1	7	7
Union Texas Petroleum (Allied Chemical)	467	456	475	466	492	483
Total, all companies	13,532	7,522	13,821	7,665	15,330	8,906
Total all companies reporting 1971–73 data	13,532	7,522	13,821	7,665	14,774	8,411
Joint as a percent of total, all companies reporting 1971–73 data	56		55		57	

[1] All firms, excluding the 20 largest by sales for 1974.
[2] Total wells are all wells in which the firm owns an interest; joint wells are wells owned with others.
[3] Data for Odessa Natural Corp. (a subsidiary) are excluded because of discrepancies in the data.
[4] 1973 data only.
[5] Company-operated wells only.
[6] Total stated that it had no gas wells before 1972.
[7] General American Oil is excluded because it only reported 1973 data.

Jointly Owned Oil Wells and Unitization.

Table 4–E lists jointly owned U.S. oil wells among major and non-major petroleum firms. Five majors and 13 non-major firms reported the number of oil wells owned with each other petroleum firm. Similar data can be compiled for joint gas wells and for jointly owned oil and gas production. Joint ownership can also be analyzed on a regional basis by PAD districts, but only U.S. oil wells are analyzed here. Table 4–E lists jointly owned U.S. oil wells and illustrates the information on joint activity that is available in the survey data.

Table 4–E shows that joint ownership with major petroleum firms is extensive for both major and smaller petroleum firms reporting data. Howover, joint ownership in production reflects, in part, the increased practice of unitization and the number of jointly owned wells should be interpreted with caution. Unitization is the practice of managing each oil pool as a unit and allows greater efficiencies in production. Where unitization is established, all firms owning oil wells in the same oil field become "partners", even though they may not have been joint owners when the wells were originally drilled.

General American Oil Co. of Texas was the only firm which separated joint wells into unitized and non-unitized wells. (See Table 4–E.) The number of unitized wells jointly owned with each major is far greater than the number of non-unitized wells jointly owned with each firm for General American Oil. Cities Service stated that its joint

production figures "reflect field wide unitization projects . . . set forth by state regulatory agencies and do not properly represent the initial lease ownerships within these areas." While other firms did not specify whether joint wells and production were unitized or non-unitized, the extensiveness of joint activity in production is due in part to unitization and the numbers should be interpreted accordingly.

TABLE 4-E.—U.S. OIL WELLS JOINTLY OWNED AMONG MAJOR AND NON-MAJOR [1] PETROLEUM FIRMS IN 1973

Reporting company	Total wells in which reporting company owns an interest	Total wells owned with others	Major petroleum firms with whom wells are owned		Wells jointly owned with each major as a percent of reporting firm's total joint wells
			Company name	Number of gross wells	
SEC. A: MAJOR PETROLEUM FIRMS [2]					
Ashland Oil, Inc	6,471	4,867	Amerada Hess Corp	226	5
			Atlantic Richfield Co	1,149	24
			Cities Service Co	496	10
			Continental Oil Co	539	11
			Exxon Corp	936	19
			Getty Oil Co	796	16
			Gulf Oil Corp	483	10
			Marathon Oil Co	112	2
			Mobil Oil Corp	619	13
			Phillips Petroleum Co	482	10
			Shell Oil Co	101	2
			Standard Oil of California	390	8
			Standard Oil of Indiana	1,024	21
			Standard Oil of Ohio	742	15
			Sun Oil Co	409	8
			Tenneco, Inc	342	7
			Texaco, Inc	1,001	21
			Union Oil of California	184	4
Cities Service Co.[3]	14,715	10,818	Amerada Hess Corp	2,228	21
			Ashland Oil, Inc	473	4
			Atlantic Richfield Co	6,514	60
			Continental Oil Co	3,886	36
			Exxon Corp	3,676	34
			Getty Oil Co	5,116	47
			Gulf Oil Corp	3,719	34
			Marathon Oil Co	1,898	18
			Mobil Oil Corp	4,069	38
			Phillips Petroleum Co	4,433	41
			Shell Oil Co	2,440	23
			Standard Oil of California	837	8
			Standard Oil of Indiana	3,877	36
			Standard Oil of Ohio	1,301	12
			Sun Oil Co	3,763	35
			Tenneco, Inc	938	9
			Texaco, Inc	5,120	47
			Union Oil of California	1,764	16
Occidental Petroleum Corp	359	294	Exxon Corp	13	4
			Gulf Oil Corp	22	7
			Shell Oil Co	18	6
			Standard Oil of California	27	9
			Sun Oil Co	1	(*)
			Tenneco, Inc	1	(*)
Standard Oil of California	11,168	3,298	Amerada Hess Corp	1,125	34
			Ashland Oil, Inc	14	(*)
			Atlantic Richfield Co	1,355	41
			Cities Service Co	1,039	32
			Continental Oil Co	1,587	48
			Exxon Corp	1,113	34
			Getty Oil Co	1,781	54
			Gulf Oil Corp	1,190	36
			Marathon Oil Co	1,001	30
			Mobil Oil Crop	1,463	44
			Occidental Petroleum Corp	23	1
			Phillips Petroleum Co	1,417	43
			Shell Oil Co	389	12
			Standard Oil of Indiana	1,620	49
			Standard Oil of Ohio	1,253	38
			Sun Oil Co	1,298	39
			Tenneco, Inc	1,025	31
			Texaco, Inc	1,664	50
			Union Oil of California	1,610	49

TABLE 4-E.—U.S. OIL WELLS JOINTLY OWNED AMONG MAJOR AND NON-MAJOR [1] PETROLEUM FIRMS IN 1973—Con.

Reporting company	Total wells in which reporting company owns an interest	Total wells owned with others	Major petroleum firms with whom wells are owned		Wells jointly owned with each major as a percent of reporting firm's total joint wells
			Company name	Number of gross wells	
Standard Oil of Ohio	6,664	6,292	Amerada Hess Corp	1,413	22
			Ashland Oil, Inc	1,232	20
			Atlantic Richfield Co	3,425	54
			Cities Service Co	2,669	42
			Continental Oil Co	2,340	37
			Exxon Corp	2,210	35
			Getty Oil Co	3,108	49
			Gulf Oil Corp	2,947	47
			Marathon Oil Co	1,821	29
			Mobil Oil Corp	2,920	46
			Phillips Petroleum Co	2,655	42
			Shell Oil Co	685	11
			Standard Oil of California	829	13
			Standard Oil of Indiana	2,429	39
			Sun Oil Co	3,028	48
			Tenneco, Inc	1,304	21
			Texaco, Inc	3,485	55
			Union Oil of California	1,016	16
SEC. B: NON-MAJOR PETROLEUM FIRMS [4]					
American Petrofina, Inc	6,696	5,910	Amerada Hess Corp	349	6
			Ashland Oil, Inc	4	(*)
			Atlantic Richfield Co	404	7
			Cities Service Co	51	9
			Continental Oil Co	78	1
			Exxon Corp	115	2
			Getty Oil Co. [5]	[5] 209	4
			Gulf Oil Corp	537	9
			Marathon Oil Co	41	7
			Mobil Oil Corp	556	9
			Phillips Petroleum Co	345	6
			Shell Oil Co	822	14
			Standard Oil of California	306	5
			Standard Oil of Indiana	527	9
			Standard Oil of Ohio	69	1
			Sun Oil Co	333	6
			Tenneco, Inc	42	1
			Texaco, Inc	624	11
			Union Oil of California	132	2
Apco Oil Corp. [6]	4,612	4,488	Amerada Hess Corp	64	1
			Atlantic Richfield Co	786	18
			Continental Oil Co	77	2
			Exxon Corp	292	7
			Getty Oil Co	861	19
			Gulf Oil Corp	1	(*)
			Mobil Oil Corp	578	13
			Shell Oil Co	445	10
			Standard Oil of California	231	5
			Tenneco, Inc	19	(*)
			Texaco, Inc	52	1
			Union Oil of California	253	6
Crown Central Petroleum Corp.	1,231	125	Ashland Oil, Inc	2	2
			Atlantic Richfield Co	3	2
			Cities Service Co	7	6
			Continental Oil Co	2	2
			Exxon Corp	7	6
			Phillips Oil Co	10	8
			Standard Oil of Indiana	1	1
			Sun Oil Co	1	1
			Texaco, Inc	5	4
			Union Oil of California	7	6
Diamond Shamrock Oil & Gas Co.	975	294	Amerada Hess Corp	1	(*)
			Ashland Oil, Inc	2	1
			Continental Oil Co	1	(*)
			Exxon Corp	2	1
			Getty Oil Co	1	(*)
			Gulf Oil Corp	1	(*)
			Phillips Petroleum Corp	7	2
			Shell Oil Co	1	(*)
			Standard Oil of Indiana	2	1
			Union Oil of California	3	1
El Paso Natural Gas Co. [7]	46	[7] 36	Atlantic Richfield Co	35	97
			Exxon Corp	1	3
			Getty Oil Co	1	3
			Standard Oil of California	1	3
			Sun Oil Co		3

TABLE 4-E.—U.S. OIL WELLS JOINTLY OWNED AMONG MAJOR AND NON-MAJOR [1] PETROLEUM FIRMS IN 1973—Con.

Reporting company	Total wells in which reporting company owns an interest	Total wells owned with others	Major petroleum firms with whom wells are owned: Company name	Number of gross wells	Wells jointly owned with each major as a percent of reporting firm's total joint wells
				Forest-operated wells	Partner-operated wells [8]	
Forest Oil Corp.[8]	2,642	2,503	Amerada Hess Corp	1	180	7
			Atlantic Richfield Co	0	1	(*)
			Cities Service Co	104	0	4
			Continental Oil Co	100	76	7
			Exxon Corp	34	57	4
			Getty Oil Co	15	90	4
			Gulf Oil Corp	0	2	(*)
			Marathon Oil Co	0	2	(*)
			Mobil Oil Corp	0	156	6
			Phillips Petroleum Co	68	81	6
			Shell Oil Co	0	10	(*)
			Standard Oil of California	19	68	4
			Standard Oil of Indiana	101	423	21
			Standard Oil of Ohio	0	96	4
			Sun Oil Co	108	29	5
			Tenneco, Inc	2	17	1
			Texaco, Inc	103	584	27
			Union Oil of California	0	2	(*)
				Unitized wells	Non-unitized wells [9]	
General American Oil Co. of Texas.[9]	6,793	5,878	Amerada Hess Corp	2,139	6	36
			Ashland Oil, Inc	568	1	10
			Atlantic Richfield Co	3,176	16	54
			Cities Service Co	2,157	4	37
			Continental Oil Co	1,300	20	22
			Exxon Corp	3,273	34	56
			Getty Oil Co	3,010	16	51
			Gulf Oil Corp	2,981	19	51
			Marathon Oil Co	914	2	16
			Mobil Oil Corp	2,870	28	49
			Occidental Petroleum Corp	0	3	(*)
			Phillips Petroleum Co	2,260	0	38
			Shell Oil Co	2,084	2	35
			Standard Oil of California	18	12	1
			Standard Oil of Indiana	2,684	10	46
			Standard Oil of Ohio	670	6	12
			Sun Oil Co	2,001	25	34
			Tenneco, Inc	2,250	87	40
			Texaco, Inc	2,256	17	39
			Union Oil of California	521	1	9
				Number of gross wells		Wells jointly owned with each major as a percent of reporting firm's total joint wells
General Crude Oil Co	3,012	2,034	Ashland Oil, Inc	125		6
			Atlantic Richfield Co	318		16
			Cities Service Co	235		12
			Exxon Corp	148		7
			Gulf Oil Corp	250		12
			Mobil Oil Corp	116		6
			Standard Oil of California	265		13
			Standard Oil of Indiana	116		6
			Standard Oil of Ohio	32		2
			Sun Oil Co	326		16
			Texaco, Inc	376		18
			Union Oil of California	51		3
Lone Star Gas Co	2,277	2,123	Amerada Hess Corp	64		3
			Atlantic Richfield Co	78		4
			Continental Oil Co	150		7
			Exxon Corp	10		(*)
			Getty Oil Co.[10]	[10] 11		1
			Gulf Oil Corp	38		2
			Marathon Oil Co	1		(*)
			Mobil Oil Corp	3		(*)

TABLE 4–E.—U.S. OIL WELLS JOINTLY OWNED AMONG MAJOR AND NON-MAJOR [1] PETROLEUM FIRMS IN 1973—Con.

Reporting company	Total wells in which reporting company owns an interest	Total wells owned with others	Major petroleum firms with whom wells are owned		Wells jointly owned with each major as a percent of reporting firm's total joint wells
			Company name	Number of gross wells	
			Shell Oil Co	269	13
			Standard Oil of California	1,261	59
			Standard Oil of Indiana	31	1
			Standard Oil of Ohio	7	(*)
			Sun Oil Co	35	2
			Tenneco, Inc	4	(*)
			Texaco, Inc	1	(*)
Louisiana Land & Exploration Co.	458	429	Amerada Hess Corp	132	31
			Exxon Corp	26	6
			Marathon Oil Co	119	28
			Texaco, Inc	153	36
			Union Oil of California	43	11
Pennzoil Co	8,168	2,502	Atlantic Richfield Co	199	8
			Continental Oil Co	244	10
			Exxon Corp	49	2
			Getty Oil Co	39	2
			Gulf Oil Corp	217	9
			Marathon Oil Co	79	3
			Mobil Oil Corp	202	8
			Phillips Petroleum Co	100	4
			Shell Oil Co	316	13
			Standard Oil of California	46	2
			Standard Oil of Indiana	80	3
			Standard Oil of Ohio	56	2
			Sun Oil Co	2	(*)
			Tenneco, Inc	27	1
			Texaco, Inc	263	11
			Union Oil of California	1	(*)
Tesoro Petroleum Corp	706	390	Ashland Oil, Inc	39	10
			Atlantic Richfield Co	41	11
			Gulf Oil Corp	107	27
			Standard Oil of California	70	18
			Standard Oil of Indiana	99	25
			Sun Oil Co	99	25
			Tenneco, Inc	70	18
			Texaco, Inc	175	45
			Union Oil of California	43	11
Total Leonard, Inc	37	37	Shell Oil Co	1	3

*Less than 0.5 percent.

[1] Major refers to those reporting companies among the 20 largest petroleum firms by sales for 1974. Non-majors are all firms excluding majors.

[2] Texaco, Inc. and Sun Oil Co. both listed all other majors as joint owners but did not specify the number of wells owned with each. All references to Shell Oil also include the Royal Dutch Shell group of companies.

[3] Cities Service Co.'s joint wells represent unitization agreements and do not reflect original lease agreements.

[4] Southwestern Oil & Refining Co. and Texas Oil & Gas Corp. listed joint owners but none were among the majors.

[5] Both Getty and its subsidiary Skelly were listed as partners in 103 wells in PAD 3; if these wells are the same then the total wells for Getty should be 106 and not the 209 listed here.

[6] Apco's joint wells are for the operators of partner-operated wells only.

[7] El Paso reported 31 joint wells in PAD 3 and 1 in PAD 4 for 1973. However, they also reported 35 wells owned with Atlantic Richfield in PAD 3 for 1973. Consequently, the total joint wells were assumed to be 36 for 1973. El Paso also reported separate data for its subsidiary Odessa Natural Gas Corp. which owned 112 gross wells and 34 joint wells in 1973. Data for Odessa were excluded from these calculations because of discrepancies in the data reported for years prior to 1973.

[8] Forest separated wells into Forest-operated and partner-operated. The identity of joint owners on partner-operated properties, other than the partner-operator, was not reported.

[9] General American Oil was the only company which separated wells into unitized and nonunitized wells.

[10] 6 wells were jointly owned with Skelly Oil Co. and 5 with Getty.

Discrepancies in Reported Jointly Owned Oil Wells.

Table 4–F lists the discrepancies found in reported joint oil well ownership and illustrates some of the problems in interpreting aggregate data compiled from the questionnaire responses. Responding firms frequently had to qualify their responses and where qualifications were made, these are noted in the tables. (See footnotes at the end of each table.)

Table 4–F lists the reported number of oil wells owned among firms which reported joint ownership. For example, Cities Service stated

that it owned 1301 oil wells with Standard Oil of Ohio while Standard of Ohio listed 2669 oil wells as jointly owned with Cities Service. Although the jointly owned oil wells between two firms should be identical, no matter which firm is reporting the information, in no case does the number of jointly owned wells listed by the reporting company agree with the number of wells listed by the partner. There are several reasons why these discrepancies may occur. First, companies were asked to list joint owners in production properties according to the parent company (rather than subsidiary), if the parent company was known. (See Appendix A.) Frequently firms listed subsidiaries rather than. the parent company. Amoco Production Co. (Standard Oil of Indiana) was the most frequently listed subsidiary. It is possible that subsidiaries of companies were listed as joint owners and that these subsidiaries were not recognized as part of the parent company, especially when subsidiaries were not listed in published sources.

Second, some firms were unable to identify joint owners in partner-operated production. Forest Oil Corp. listed 104 wells as jointly owned with Cities Service while Cities Service listed 356 wells as jointly owned with Forest Oil. Forest, however, stated that it was unable to identify joint owners on partner-operated properties, other than the partner-operator.

TABLE 4–F.—DISCREPANCIES IN REPORTED JOINTLY OWNED U.S. OIL WELLS AMONG FIRMS FOR 1973

Reporting company and partner	Number of oil wells listed by reporting company as jointly owned with partner	Number of oil wells listed by partner as jointly owned with the reporting company
SEC. A: MAJOR PETROLEUM FIRMS[1]		
Ashland Oil, Inc.:		
Cities Service	496	473
Standard (California)	390	14
Standard (Ohio)	742	1,232
Cities Service Co:[2]		
Standard (California)	837	1,039
Standard (Ohio)	1,301	2,669
Occidental Petroleum Corp.: Standard (California)	27	23
Standard Oil of California: Standard (Ohio)	1,253	829
SEC. B: NON-MAJOR PETROLEUM FIRM[3]		
Apco Oil Corp.:[4]		
Cities Service	0	877
Standard (California)	231	39
Standard (Ohio)	0	40
American Petrofina, Inc.:		
Ashland	4	226
Cities Service Co	51	1,092
Standard (California)	306	213
Standard (Ohio)	69	1,118
Occidental	0	4
Crown Central Petroleum Corp.:		
Ashland	2	0
Cities Service Co	7	200
Standard (Ohio)	0	165
Diamond Shamrock Oil & Gas Corp.: Ashland	2	0
El Paso Natural Gas Co.:[5]		
Cities Service	0	56
Standard (California)	1	0
Standard (Ohio)	0	215
Forest Oil Corp.:[6]		
Cities Service	104	356
Standard (California)	87	56
Standard (Ohio)	96	95
Occidental	0	1
General American Oil Co. of Texas:[7]		
Ashland	569	132
Cities Service	2,161	1,181
Occidental	3	2
Standard (California)	30	48
Standard (Ohio)	676	482

TABLE 4–F.—DISCREPANCIES IN REPORTED JOINTLY OWNED U.S. OIL WELLS AMONG FIRMS FOR 1973—continued

Reporting company and partner	Number of oil wells listed by reporting company as jointly owned with partner	Number of oil wells listed by partner as jointly owned with the reporting company
General Crude Oil Co:		
Ashland	125	61
Cities Service	235	503
Standard (California)	265	989
Standard (Ohio)	32	733
Lone Star Gas Co.:		
Cities Service	0	465
Standard (California)	1,261	989
Standard (Ohio)	7	530
Louisiana Land & Exploration Co.: Standard (California)	0	2
Pennzoil Co.:		
Cities Service	0	152
Standard (California)	46	1
Standard (Ohio)	56	109
Occidental	0	22
Tesoro Petroleum Corp.:		
Ashland	39	45
Cities Service	0	50
Standard (California)	70	

[1] Major refers to those reporting companies among the 20 largest petroleum firms by sales for 1974.
[2] Cities Service Co.'s joint wells reflect unitization agreements.
[3] Nonmajors are all firms excluding the top 20 firms by sales.
[4] Apco's joint wells are for the operators of partner-operated wells only.
[5] Data for the Odessa Natural Corp. (a subsidiary) are excluded because of data discrepancies.
[6] The identity of joint owners on partner-operated properties, other than operators, is not known.
[7] Includes both unitized and non-unitized wells.

Third, some companies (such as Standard Oil of California) reported data by subsidiary and others reported aggregate data for the parent company (such as American Petrofina, Inc.). El Paso Natural Gas reported data both for itself and for a subsidiary, the Odessa Natural Corp. Information for Odessa was excluded because of discrepancies in the data and this undoubtedly accounts for some of the differences in reported well ownership between El Paso and its partners. Wherever subsidiary information was given, it was included in the calculations for the parent. It is possible, however, that responding firms were not consistent in reporting information for their subsidiaries.

Fourth, some firms listed joint ownership information for some PAD districts but not for others. Ashland Oil, for example, listed joint owners in natural gas production for PAD districts 2, 3 and 4 but stated that joint ownership information for PAD 1 was unavailable.

Fifth, many firms stated that they could provide only estimates of the production data because information requested by the survey was not kept in the requested form in company files.

Finally, some firms reported unitized wells and others did not. General American Oil separated well ownership into unitized and non-unitized wells. Cities Service stated that its joint production figures represented field-wide unitization projects and did not properly represent the initial lease ownerships within each area. Only a few firms specified whether joint figures represented unitized or non-unitized wells, and it is likely that this was also a source of the discrepancies in reported joint well ownership.

In summary, the figures representing joint ownership among firms should be interpreted with caution. In addition, where discrepancies occur, they appear to understate rather than overstate joint ownership.

In other words, it is likely that Cities Service owns at least 2669 wells with Standard Oil of Ohio even though Cities Service only reported 1301 wells. Joint ownership appears to be at least as large as the largest figure reported by either of two partners.

OIL AND GAS PRODUCTION

Tables 4–G and 4–H list gross and net oil production for major and non-major petroleum firms for the years 1971–73. Gross production is essentially total production from a given area or well and net production is the amount belonging to a single company. For a given well, then, the sum of the participating companies' net production is equal to the gross production from the well.[1] Net production for the 12 major firms reporting data for 1973 was approximately 11 times greater than net production for the 23 smaller companies in 1973.

For the 10 major firms reporting data for 1971–73, net production averaged about 47% of gross production. However, this percentage is over-estimated because Exxon, Standard of Indiana and Sun report only gross production from company-operated properties while net is from both company and partner-operated properties. If these three firms are excluded, net production is 29, 27 and 24% of gross production for 1971, 1972 and 1973 respectively. Net production averaged 20% of gross production for the 23 smaller companies for the same period.

TABLE 4–G.—U.S. OIL PRODUCTION BY MAJOR[1] PETROLEUM FIRMS, 1971–73

[In thousands of barrels]

Company name	1971		1972		1973	
	Gross production[2]	Net production[2]	Gross production[2]	Net production[2]	Gross production[2]	Net production[2]
Ashland Oil, Inc	19,445	6,476	34,957	9,592	117,778	6,851
Cities Service Co	295,479	58,894	319,260	57,145	331,114	54,624
Exxon Corp.[3]	391,645	340,180	406,610	354,050	395,660	345,655
Gulf Oil Corp	375,702	221,349	363,373	207,362	299,278	191,635
Marathon Oil Co	228,836	61,383	232,651	61,451	187,787	59,389
Occidental Petroleum Corp	9,638	4,769	9,901	4,592	11,282	4,488
Shell Oil Co.[4]			375,894	238,842	381,346	236,146
Standard Oil of California[5]					296,382	164,116
Standard Oil of Indiana[6]	250,114	201,757	248,942	201,298	256,444	214,677
Standard Oil of Ohio	142,251	14,378	155,391	13,866	175,862	12,912
Sun Oil Co.[6]	91,673	77,100	91,365	81,525	85,474	78,593
Tenneco, Inc	268,159	28,666	312,836	29,844	362,718	28,542
Total,[7] all companies	2,072,942	1,010,952	2,551,180	1,259,567	2,901,125	1,397,629
Total,[7] all companies excluding Socal and Shell[8]	2,072,942	1,010,952	2,175,286	1,020,725	2,223,398	997,367
Net as a percent of gross, all companies excluding Socal and Shell[8]	[9] 49		[9] 47		[9] 45	

[1] Major refers to those reporting companies among the 20 largest petroleum firms by sales for 1974.
[2] See App. A, definition Nos. 22 and 32 for definitions of gross and net production ,respectively.
[3] Includes crude oil, lease condensate and liquids extracted from gas at gas plants. Gross production represents Exxon's working interest in all properties plus royalty receivable from properties operated by others. Net production differs from gross by royalties payable out of Exxon's working interest. Exxon reported production in 1,000 barrels per day; the numbers have been multiplied by 365 to obtain an annual production figure.
[4] 1972–73 data only.
[5] 1973 data only.
[6] Gross production is from company-operated properties only; net production is from both company- and partner-operated properties. Thus the net/gross ratio will be overestimated.
[7] Totals may not be exact due to rounding.
[8] Excluded because they did not report data for 1971–73.
[9] This percent is too high because of the way Exxon, Standard of Indiana and Sun define "gross." See above footnotes.

[1] For the precise definitions used in the survey, see Appendix A. Definition numbers 22 and 32 refer to gross and net production respectively.

TABLE 4-H.—U.S. OIL PRODUCTION BY NON-MAJOR[1] PETROLEUM FIRMS, 1971–73

[In thousands of barrels]

Company name	1971		1972		1973	
	Gross production[2]	Net production[2]	Gross production[2]	Net production[2]	Gross production[2]	Net production[2]
American Petrofina, Inc	55,768	7,036	66,937	7,165	99,710	7,898
Burmah Oil & Gas	41,344	15,689	52,354	21,467	53,190	23,702
Clark Oil & Refining Corp	3,211	859	3,265	654	4,459	509
Clinton Oil Co	25,712	6,769	25,946	6,411	28,502	5,574
Crown Central Petroleum Corp	2,020	782	3,178	1,944	3,383	2,085
Diamond Shamrock Oil & Gas Co	3,327	1,755	3,008	1,500	2,917	1,414
El Paso Natural Gas Co.[3]	2,326	577	3,091	758	4,958	1,236
Exchange Oil & Gas Corp	2,480	642	2,340	568	2,273	494
Forest Oil Corp	32,827	5,129	31,038	4,632	29,817	4,088
General American Oil Co. of Texas[4]					185,943	9,248
General Crude Oil Co	88,706	8,063	104,463	9,520	109,792	9,571
Hunt Oil Co	39,433	5,373	34,437	5,011	22,168	3,362
Louisiana Land & Exploration Co.[5]	38,999	15,300	45,171	18,987	51,747	23,583
Monsanto Co	52,210	4,238	46,021	3,734	39,806	3,271
National Cooperative Refinery Association	27,497	2,808	25,764	3,674	26,123	3,611
Pennzoil Co	24,782	11,792	26,013	12,616	30,280	14,782
Rock Island Refinery Corp	59	18	73	20	68	18
Southwestern Oil & Refining Co	190	76	187	74	192	77
Tesoro Petroleum Corp.[6]	3,001	1,276	3,657	1,392	2,883	1,640
Texas City Refining, Inc	1,434	179	1,707	167	1,758	468
Texas Oil & Gas Corp	1,612	872	1,478	766	1,705	969
Total Leonard, Inc	41	4	66	19	50	15
Union Texas Petroleum (Allied Chemical)	67,585	7,522	68,069	7,197	69,009	6,978
Total, all companies	514,564	96,759	548,263	108,276	770,733	124,593
Total, all companies reporting 1971–73 data[7]	514,564	96,759	548,263	108,276	587,790	115,345
Net as a percent of gross, all companies reporting 1971–73 data[7]	19		20		20	

[1] All firms excluding the 20 largest by sales for 1974.

[2] See App. A definition Nos. 22 and 32 for definitions of gross and net production respectively.

[3] Data for the Odessa Natural Corp. (a subsidiary) are excluded because of discrepancies in the data.

[4] 1973 data only.

[5] Louisiana Land reported gross production in PAD 4 for 1973 as 1,000 barrels and net as 3,000 barrels; this is the only place where their reported gross was smaller than net production.

[6] Tesoro reported gross production in PAD 4 for 1973 as 142,000 barrels and net as 162,000 barrels; this is the only place where their reported gross was smaller than net production.

[7] General American Oil Co. is excluded because it only reported 1973 data.

TABLE 4-I.—U.S. NATURAL GAS PRODUCTION[1] BY MAJOR[2] PETROLEUM FIRMS, 1971–73

[In billions of cubic feet]

Company name	1971		1972		1973	
	Gross production[3]	Net production[3]	Gross production[3]	Net production[3]	Gross production[3]	Net production[3]
Ashland Oil, Inc.[4]	211	109	[4] 269	[4] 116	317	100
Cities Service Co	1,376	455	1,392	464	1,461	468
Exxon Corp.[5]	2,606	2,714	2,761	2,718	2,752	2,677
Gulf Oil Corp	2,916	1,189	3,125	1,216	2,711	1,139
Marathon Oil Co.[6]	1,346	181	1,399	166	1,340	160
Occidental Petroleum Corp	99	41	100	40	114	39
Shell Oil Co.[7]			1,779	1,101	1,676	980
Standard Oil of California[8]					784	502
Standard Oil of Indiana[9]	1,466	1,339	1,403	1,291	1,316	1,263
Standard Oil of Ohio[10]	385	65	342	60	309	51
Sun Oil Co.[9]	727	544	658	553	610	555
Tenneco, Inc.[11]	1,895	291	1,785	314	1,719	322
Total,[12] all companies	13,028	6,928	15,010	8,039	15,108	8,256
Total,[12] all companies reporting 1971–73 data[13]	13,028	6,928	13,232	6,938	12,648	6,774
Net as a percent of gross, all companies reporting 1971–73 data[13]	[14] 53		[14] 52		[14] 54	

[1] Companies were asked to include quantities of natural gas condensate.

[2] 1 Major refers to those reporting companies among the 20 largest firms by sales for 1974.

[3] See app. A, definition Nos. 22 and 32 for definitions of gross and net production respectively.

[4] Ashland did not report production figures for PAD 2 in 1972. Gross production for PAD 2 was estimated to be 134,000,000,000 ft³ and net 77,000,000,000 ft³ in 1972. These values are halfway between gross and net production for 1971 and 1973.

[5] It is assumed that Exxon reported production in billions of cubic feet rather than the million cubic feet specified in the survey; otherwise Exxon's annual production would be less than the daily sales listed in its annual report. Exxon reported gross production from Exxon-operated properties only while net is from both Exxon and partner operated properties. As a result, the net/gross production ratio will be over-estimated.

[6] Marathon's production includes natural gas liquids which were converted to cubic feet equivalents using the U.S. Bureau of Mines conversion factors (110,000 Btu's per gallon natural gas liquids and 1,031 Btu's per cubic foot of natural gas.)

[7] Shell reported natural gas condensate with oil production. Shell reported data for 1972–73 only.

[8] Socal reported gas production for PAD 1 in 1,000 barrels; it was assumed that this should be 1,000 mcf. PAD 5 production includes condensate which have been converted to cubic feet equivalents using the U.S. Bureau of the Mines conversion factors. Socal only reported data for 1973.

[9] Gross production is from company-operated properties only. Thus the net/gross ratio will be over-estimated.

[10] Sohio reported net production for PAD 3 in 1971 as 525,600,000,000 ft³. This was clearly a typing error and net production was calculated for PAD 3 as 526,000,000,000 ft³ in 1971.

[11] Tenneco reported natural gas condensate with liquid barrels (oil production).

[12] Totals may not add due to rounding.

[13] Socal and Shell are excluded because they did not report data for 1971–73.

[14] This percent is too high because of the way Exxon, Amoco and Sun report "gross". See above footnotes.

TABLE 4–J.—U.S. NATURAL GAS PRODUCTION [1] BY NON-MAJOR [2] PETROLEUM FIRMS, 1971–73

[In billions of cubic feet]

Company name	1971		1972		1973	
	Gross production [3]	Net production [3]	Gross production [3]	Net production [3]	Gross production [3]	Net production [3]
American Petrofina, Inc.[4]	116.9	21.4	100.8	21.0	116.5	19.2
Burmah Oil & Gas	127.1	36.7	141.4	46.4	161.8	58.2
Clark Oil & Refining Corp	12.0	3.1	10.0	2.5	8.4	2.1
Clinton Oil Co	207.3	52.4	206.9	42.5	191.0	36.0
Crown Central Petroleum Corp	16.4	5.2	49.3	14.5	60.7	11.4
Diamond Shamrock Oil & Gas Co.[5]	147.5	91.0	158.7	92.0	151.5	95.6
El Paso Natural Gas Co.[6]	288.0	249.8	317.5	277.5	310.5	270.5
Exchange Oil & Gas Corp	144.9	20.5	135.2	16.9	141.9	15.9
Forest Oil Corp	304.5	78.4	359.0	102.4	376.1	98.3
General American Oil Co of Texas [7]					419.7	46.8
General Crude Oil Co	257.3	23.0	276.9	22.3	355.8	23.4
Hunt Oil Co	39.5	16.7	66.2	21.8	116.9	22.7
Louisiana Land & Exploration Co	196.7	68.6	207.4	70.4	224.5	73.6
McCulloch Oil Corp	9.5	1.5	25.5	11.0	61.7	24.8
Monsanto Co	709.0	58.3	764.3	60.8	649.0	52.5
National Cooperative Refinery Association	35.3	5.6	32.2	6.3	31.1	5.9
Pennzoil Co	1,182.8	259.2	1,217.3	266.5	1,449.0	309.4
Southwestern Oil & Refinery Co	3.9	1.6	2.3	7.9	1.7	5.3
Tesoro Petroleum Corp	6.0	1.7	5.4	3.5	25.4	8.0
Texas City Refining, Inc	4.9	.9	4.8	8.0	3.5	1.2
Texas Oil & Gas Corp	93.3	33.8	129.1	47.2	155.9	54.8
Union Texas Petroleum (Allied Chemical)	350.7	91.6	338.6	81.3	365.1	85.0
Total,[7] all companies	4,253.8	1,120.9	4,548.6	1,208.3	5,377.6	1,316.1
Total,[7] all companies reporting 1971–73 data [8]	4,253.8	1,120.9	4,548.6	1,208.3	4,957.9	1,270.3
Net as a percent of gross, all companies reporting 1971–73 data [8]	26		27		26	

[1] Companies were asked to include quantities of natural gas condensate.

[2] All firms excluding the 20 largest by sales for 1974.

[3] See App. A definition Nos. 22 and 32 for definitions of gross and net production respectively.

[4] Condensate production reported for PAD 3 have been converted to cubic feet equivalents using U.S. Bureau of Mines conversion factors (129,000 Btu's per gallon condensate and 1,031 Btu's per cubic foot of natural gas).

[5] Production for PAD 3 include only working interests and Opilika ("Opilika" was not defined). Production for PAD's 2 and 4 does not include royalty or overriding royalty interests.

[3] Excludes data for Odessa Natural Corp. (a subsidiary) because of discrepancies in the data.

[7] Totals may not add due to rounding.

[8] General American Oil is excluded because it only reported data for 1973.

Tables 4–I and 4–J list gross and net natural gas production for major and non-major petroleum firms for the years 1971–73. Net gas production increased over the three-year period for both large and small companies. For the 10 majors reporting 1971–73 data, net production averaged 53% of gross production although, again, this percent is over-estimated because of the way Exxon, Standard of Indiana

and Sun defined gross production. (See footnotes to Table 4–I. Exxon's reported net gas production is actually larger than gross for 1971.) Net production averaged 26% of gross for the 21 smaller companies reporting 1971–73 data.

U.S. total crude oil and natural gas production in 1973 was 3.36 billion barrels and 22.6 trillion cubic feet respectively. The 12 major firms reporting data for 1973 accounted for 42% of U.S. crude oil production and 36% of U.S. natural gas production in 1973.

Location of Oil and Gas Production.

Figure 4–A shows the Petroleum Administration for Defense (PAD) districts. For the 12 major firms reporting oil production by region for 1973, oil production occurred in the following PAD districts:[2] PAD 1—1.1%, PAD 2—5.1%, PAD 3—77.8%, PAD 4—7.0% and PAD 5—9.0%. The percentages of total net oil production occurring in each region for the 23 smaller companies in 1973 are as follows:[3] PAD 1—9.4%, PAD 2—6.2%, PAD 3—70.2%, PAD 4—4.4%, and PAD 5—9.8%.

Natural gas production was located in the following PAD districts for 12 majors in 1973:[2] PAD 1—0.4%, PAD 2—9.8%, PAD 3—86.9%, PAD 4—1.3%, and PAD 5—1.6%. Natural gas production among the 22 smaller companies was located in the following PAD districts in 1973:[3] PAD 1—1.0%, PAD 2—4.1%, PAD 3—92.2%, PAD 4—1.8%, and PAD 5—0.9%.

There were no significant regional differences in the location of oil and natural gas production among major and non-major firms in 1973.

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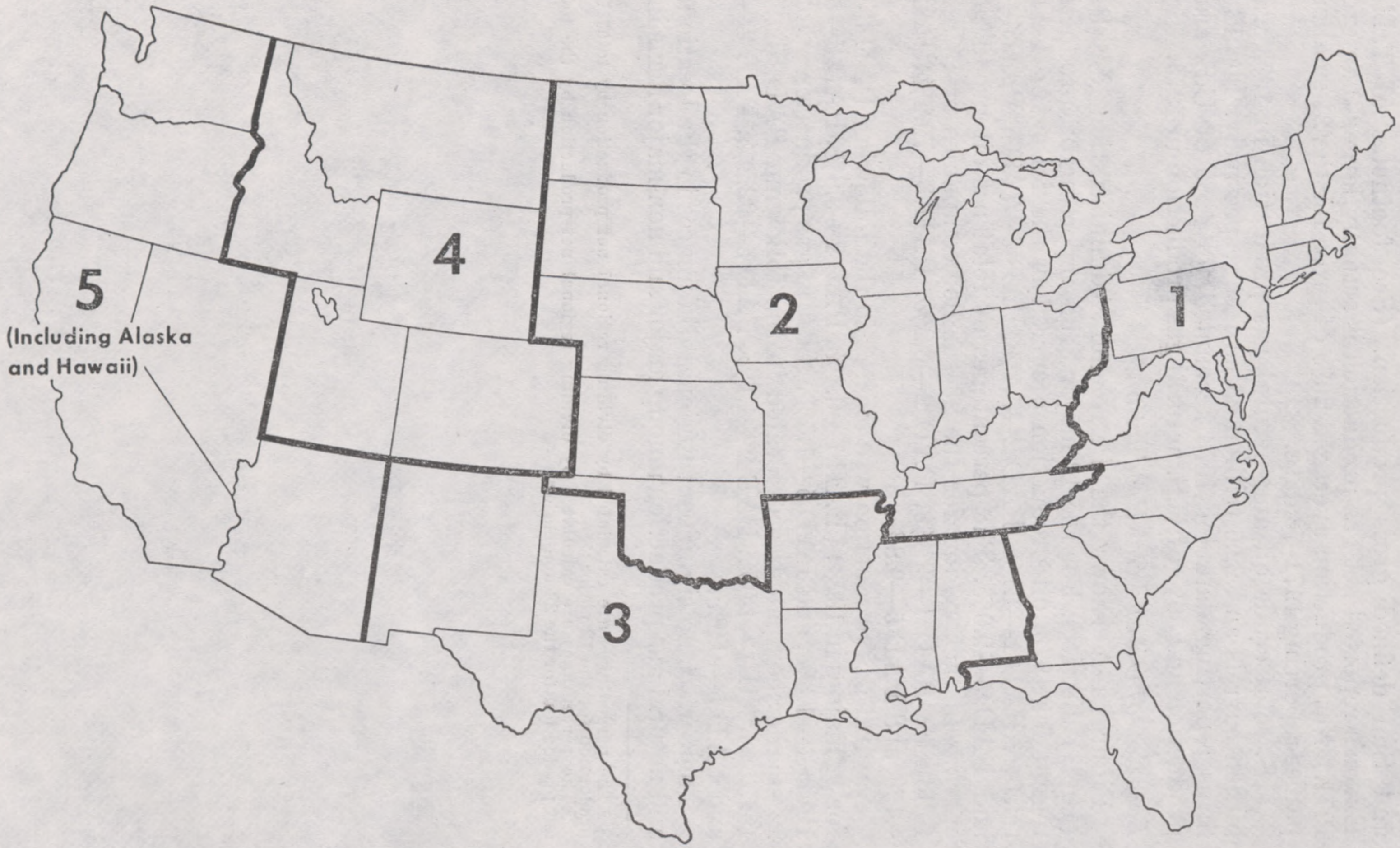
[2] The percentages are calculated by dividing regional net production by total U.S. net production for the 12 majors.

[3] The percentages are calculated by dividing regional net production by the total U.S. net production for the 23 non-majors.

FIGURE 4A. PETROLEUM ADMINISTRATION FOR DEFENSE (PAD) DISTRICTS



OIL AND GAS RESERVES

Question 8 requested information on holdings of oil and gas reserves by PAD district and by foreign country as of January 1, 1974. Firms were also asked to list the reserves owned with each other petroleum firm. Foreign data are excluded here because they were too incomplete to be useful.

The survey requested demonstrated reserves which include both measured and indicated reserves.[4] Measured reserves, according to the U.S. Geological Survey, are equivalent to what both the American Gas Association and the American Petroleum Institute refer to as proved reserves.[5]

Tables 4–K and 4–L list gross and net U.S. oil reserves of major and non-major petroleum firms. Net oil reserves for the 14 responding major companies are approximately 16 times greater than net oil reserves for the 24 smaller companies. Net reserves were 36% of gross reserves for the major companies although this is somewhat overestimated because of the way Exxon defined gross and net reserves. (See footnotes to Table 4–K.) Net reserves were 11% of gross reserves for the 24 smaller companies.

TABLE 4–K.—U.S. OIL RESERVES[1] OF MAJOR[2] PETROLEUM FIRMS AS OF JAN. 1, 1974

[In millions of barrels]

Company name	Gross reserves[3]	Net reserves[3]	Net as a per cent of gross[3]
Ashland Oil, Inc	999	66	7
Cities Service Co	3,472	569	16
Continental Oil Co	3,495	464	13
Exxon Corp.[4]	4,197	3,575	[4] 85
Getty Oil Co.[5]	7,032	1,691	24
Gulf Oil Corp.[6]	5,273	1,353	26
Marathon Oil Co	3,883	734	20
Occidental Petroleum Corp	110	100	91
Phillips Petroleum Co	2,795	410	15
Shell Oil Co.[7]	3,579	1,534	43
Standard Oil of California	3,596	1,834	51
Standard Oil of Ohio	6,883	5,242	76
Sun Oil Co	4,221	757	18
Tenneco, Inc.[8]	2,870	257	9
Total[9]	[9] 52,405	[9] 18,626	36
U.S. total proved reserves[10] of crude oil as of Dec. 31, 1973		[10] 35,300	

[1] See App. A, definition number 42(a) for definition of oil reserves.
[2] Major refers to those reporting companies among the 20 largest petroleum firms by sales for 1974.
[3] See App. A, definition numbers 23 and 33 for definitions of gross and net reserves, respectively. Percents may not be exact due to rounding.
[4] Exxon reported net reserves as being different from gross only by the royalty due others, when oil is produced. Thus, their definitions do not conform with those given in the survey and the net/gross ratio is over estimated. Exxon reported proved reserves only.
[5] Getty uses a different definition of reserves than that given in the survey. Oil reserves include all liquid barrels. Getty's reserves include Skelly's which is 70 percent owned by Getty.
[6] Recoverable reserves in which Gulf owns an interest.
[7] Shell reported proved developed reserves.
[8] Tenneco stated that its reserves did not conform to the definition specified by the survey. Oil reserves include all liquid barrels.
[9] Totals may not add due to rounding.
[10] American Gas Association, "1974 Gas Facts," p. 14. Proved reserves are not directly comparable to company reserves reported here both because the definitions differ slightly and because individual companies varied in their definitions of reserves. (See above footnotes.)

[4] For the precise definition of oil and gas reserves used in the survey, see Appendix A, definition 42(a).
[5] Department of the Interior, U.S. Geological Survey News Release, "New Estimates of Nation's Oil and Gas Reserves," May 7, 1975, p. 5.

TABLE 4-L.—U.S. OIL RESERVES[1] OF NON-MAJOR[2] PETROLEUM FIRMS AS OF JAN. 1, 1974

[In millions of barrels]

Company name	Gross reserves[3]	Net reserves[3]	Net as a percent of gross[3]
American Petrofina, Inc	1,766.9	57.2	3
Burmah Oil & Gas	813.7	202.8	25
Champlin Petroleum Co	1,082.5	70.8	7
Clark Oil & Refining Corp	13.4	1.4	10
Clinton Oil Co	152.8	28.8	19
Diamond Shamrock Oil & Gas Co	60.5	19.9	33
El Paso Natural Gas Co	95.3	8.2	9
Forest Oil Corp.[4]	[4] 1,134.5	[4] 40.4	4
General American Oil Co. of Texas	2,163.2	126.3	6
Hunt Oil Co	134.6	39.1	29
Husky Oil Ltd	38.6	31.7	82
Lone Star Gas Co	615.3	26.8	4
Louisiana Land & Exploration Co	416.8	175.6	42
McCulloch Oil Corp	22.0	11.0	50
Mesa Petroleum Co	143.2	30.5	21
Monsanto Co	307.3	29.8	10
Murphy Oil Corp	260.8	37.6	14
National Cooperative Refinery Association	270.2	16.7	6
Panhandle Eastern Pipe Line Co	190.2	19.1	10
Pennzoil Co.[5]	96.4	80.9	84
Tesoro Petroleum Corp	21.1	9.7	46
Texas Oil and Gas Corp	20.5	8.7	43
Total Leonard, Inc	3.0	0.8	27
Union Texas Petroleum (Allied Chemical)	898.6	64.5	7
Total[6]	[6] 10,721.4	[6] 1,138.1	11
U.S. proved reserves[7] of crude oil as of Dec. 31, 1973		[7] 35,300	

[1] See App. A, definition number 42(a) for definition of oil reserves.
[2] All petroleum firms excluding the 20 largest by sales for 1974.
[3] See App. A, definition numbers 23 and 33 for definitions of gross and net reserves, respectively. Percents may not be exact due to rounding.
[4] Forest reported demonstrated and indicated reserves. Since indicated reserves were not a subset of demonstrated (as defined in the survey) the numbers here represent the sum of the 2.
[5] Gross reserves calculated by using weighted average royalty interests.
[6] Totals may not add due to rounding.
[7] American Gas Association, "1974 Gas Facts," p. 14. Proved reserves are not directly comparable to company reserves reported here, both because the definitions vary slightly and because individual companies varied in their definitions of reserves. (See above footnotes.)

Tables 4–M and 4–N list U.S. natural gas reserves for major and non-major petroleum firms. The 13 major petroleum firms reporting natural gas reserves had approximately 4 times more net gas reserves than the 23 smaller companies reporting gas reserves. Net gas reserves were 33% of gross reserves for major firms but this again is somewhat overestimated. (See footnotes to Table 4–M.) Net gas reserves were 30% of gross reserves for the smaller companies.

TABLE 4-M.—U.S. NATURAL GAS RESERVES[1] OF MAJOR[2] PETROLEUM FIRMS AS OF JAN. 1, 1974

[In billions of cubic feet]

Company name	Gross reserves[3]	Net reserves[3]	Net as a percent of gross[3]
Ashland Oil, Inc	3,749	1,130	30
Cities Service Co	12,800	5,143	40
Continental Oil Co.[4]	16,515	3,042	18
Exxon Corp.[5]	30,599	26,040	85
Getty Oil Co.[6]	22,801	3,673	16
Gulf Oil Corp	29,474	9,504	32
Marathon Oil Co	18,965	2,356	12
Occidental Petroleum Corp	336	45	13
Shell Oil Co.[7]	13,505	7,232	54
Standard Oil of California	5,823	3,090	53
Standard Oil of Ohio	9,662	7,311	76
Sun Oil Co	46,700	4,500	10
Tenneco, Inc.[8]	22,047	4,159	19
Total[9]	232,976	77,224	33
U.S. proved reserves[10] of natural gas as of Dec. 31, 1973		250,000[10]	

[1] See App. A, definition number 42(a) for definition of natural gas reserves.
[2] Major refers to those reporting companies among the 20 largest petroleum firms by sales for 1974.
[3] See App. A, definition numbers 23 and 33 for definitions of gross and net reserves, respectively. Percents may not be exact due to rounding.
[4] Gas reserves are net after exclusion of royalty and include volumes not owned by Conoco that are dedicated to production-payout loans.
[5] Proved reserves only. Exxon reported grosss reserves as being different from net only by the royalty due others when gas is produced. Thus their definitions do not conform with those given in the survey and the net/gross ratio is overestimated.
[6] Proved reserves recoverable. Getty's reserves include Skelly's which is 70 percent owned by Getty.
[7] Proved developed reserves.
[8] Tenneco stated that its reserves did not conform to the definition specified by the survey.
[9] Totals may not add due to rounding.
[10] American Gas Association, "1974 Gas Facts," p. 10. Proved reserves are not directly comparable to company reserves reported here both because the definitions differ and because individual companies varied in their definitions of reserves. (See above footnotes.)

TABLE 4-N.—U.S. NATURAL GAS RESERVES[1] OF NON-MAJOR[2] PETROLEUM FIRMS AS OF JAN. 1, 1974

[In billions of cubic feet]

Company name	Gross reserves[3]	Net reserves[3]	Net as a percent of gross[3]
American Petrofina, Inc	5,120.3	209.9	4
Burmah Oil & Gas	2,148.3	398.7	16
Champlin Petroleum Co	2,741.1	886.4	32
Clinton Oil Co	1,592.5	255.9	16
Diamond Shamrock Oil & Gas Co	2,377.1	1,412.5	59
El Paso Natural Gas Co	10,394.9	6,717.3	65
Forest Oil Corp.[4]	4,487.0	1,000.1	22
General American Oil Co. of Texas	6,118.0	587.8	10
Hunt Oil Co	2,856.3	771.4	27
Husky Oil Ltd	98.9	84.8	86
Lone Star Gas Co	1,944.6	680.7	35
Louisiana Land & Exploration Co	3,273.5	910.6	28
McCulloch Oil Corp	510.7	117.6	23
Mesa Petroleum Co	3,705.8	1,459.0	39
Monsanto Co	8,093.3	306.3	4
Murphy Oil Corp	1,430.8	104.5	7
National Cooperative Refinery Association	1,438.3	42.8	3
Panhandle Eastern Pipe Line Co	2,672.7	1,974.0	74
Pennzoil Co	1,774.8	1,445.4	81
Tesoro Petroleum Corp	107.8	29.2	27
Texas Oil & Gas Corp	2,000.9	697.2	35
Total Leonard, Inc	52.7	12.2	23
Union Texas Petroleum (Allied Chemical)	3,525.2	759.7	22
Total[5]	[5] 68,734.5	[5] 20,864.2	30
U.S. proved reserves of natural gas[6] as of Dec. 31, 1973		[6] 250,000	

[1] See App. A, definition number 42(a) for the definition of natural gas reserves.
[2] All firms excluding the 20 largest by sales for 1974.
[3] See App. A definition numbers 23 and 33 for the definitions of gross and net reserves respectively. Percent may not be exact due to rounding.
[4] Forest reported demonstrated and indicated reserves. Since indicated reserves were not a subset of demonstrated reserves (as defined in the survey) the numbers here represent the sum of the 2.
[5] Totals may not add due to rounding.
[6] American Gas Association, "1974 Gas Facts," p. 10. Proved reserves are not directly comparable to company reserves reported here both because the definitions differ slightly and because individual companies varied in their definitions of reserves. (See above footnotes.)

Data for both oil and gas reserves must be interpreted with some caution. For example, five of the 14 major companies reporting oil reserves used a different definition of reserves than the definition specified in the survey. (See footnotes to Table 4–K.) In addition, total reserves of oil and gas for the U.S. listed in each table are proved reserves. Proved reserves are equivalent to measured reserves but differ from demonstrated reserves by indicated reserves. According to the U.S. Geological Survey, U.S. indicated reserves were approximately equal to 14% of measured (or proved) reserves in 1974.[6] With all of the above qualifications in mind, the 14 major petroleum firms owned somewhere between 40 and 50 percent of U.S. proved oil reserves and

[6] *Ibid.*

between 20 and 30 percent of U.S. proved natural gas reserves in 1973. One company, Exxon, owned 10% of both U.S. oil and gas proved reserves in 1973. (Exxon reported only proved reserves.)

Location of Oil and Gas Reserves.

The net oil reserves of the 13 major petroleum firms (Marathon is excluded because it only reported total reserves for the U.S., not by PAD district) were located in the following PAD districts: PAD 1—0.7%, PAD 2—3.3%, PAD 3—41.7%, PAD 4—3.5%, and PAD 5—50.8%. Net oil reserves of the 23 smaller companies (Louisiana Land and Exploration Co. is excluded because it only reported a U.S. total) were located as follows: PAD 1—1.9%, PAD 2—9.6%, PAD 3—62.6%, PAD 4—7.6%, and PAD 5—18.3%.

The location of net gas reserves for the 12 major companies (excluding Marathon) was as follows: PAD 1—0.3%, PAD 2—8.4%, PAD 3—67.3%, PAD 4—1.2%, and PAD 5—22.8%. For the 22 smaller companies (excluding Louisiana Land and Exploration) the location of net gas reserves was as follows: PAD 1—0.2%, PAD 2—18.2%, PAD 3—75.1%, PAD 4—5.9%, and PAD 5—0.6%.

The major difference in the location of oil and gas reserves between major and non-major firms is that majors have 51% of their net oil and 23% of their net gas reserves in PAD 5 which includes Alaska. Non-major firms, however, have only 18% of their net oil and 0.6% of their net gas reserves in PAD 5.

In conclusion, joint ownership of oil production and wells is general for large and small companies. Similarly, most reported oil and gas reserves are jointly owned. Large companies appear to be partners with most other large companies. Differences in reporting methods result in major discrepancies in reported well ownership between partners.

V. Refining

The refining section of the survey sought data describing refinery location, ownership, capacity, output, and disposition of output through trade with other companies and through marketing. The survey did not request data describing the sources of each refinery's feedstock, nor did it request amounts of crude oil or refined products imported or exported into or out of the United States by company.

Table 5–A indicates U.S. production, consumption, and trade in the major product categories in 1973. Gasoline and distillate oils are the major products, and imports are primarily in residual and distillate oils. Residual oil imports are nearly double domestic production. Exports are insignificant in all categories. Notwithstanding the major difficulties associated with the oil embargo in the Fall of 1973, the pattern of production, refining, and consumption for 1973 is similar to preceding years.

The product categories for which data were collected were gasoline, residual oil, distillate (specifically diesel oil and distillate No. 2), and jet fuel. These products constituted 66% of the 5.4 million barrels of U.S. refinery production and 56% of the available new supply of petroleum products.[1]

All of the 20 largest companies responded in some form as did 24 other companies. These responses appear in Table 5–B and are arranged by state. Also shown there are the Bureau of Mines operating capacity for each state, and the percentage of total operating capacity held by each company in each state.[2] The survey responses include 229 of the 260 operating refineries in the U.S. as of January 1, 1974, and 91% of the 14.5 million barrels per day of capacity.

The average size of a refinery is in general significantly larger in terms of volume handled than the average facility in exploration and production and in gasoline retailing. In 1973 there were over 10,000 companies in exploration and production and 300,000 gasoline retailers, but 131 companies active in U.S. refining. The average producing well extracted 18.5 barrels per day; the average service station sold somewhat less than 23 barrels of gasoline per day. The average U.S. refinery processed 48,000 barrels of crude oil per day in 1973.[3]

Table 5–B summarizes the ownership, location, capacity and average daily output of U.S. refineries owned by firms responding to the survey. The data are included because they are not available elsewhere, and document the variance in the ratio of refined products.

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[1] The following chapter on marketing discusses these petroleum products in the context of total U.S. energy consumption and explains the rationale for focusing upon them in the survey. The percentage statistics assume diesel and No. 2 oil are the same fraction of U.S. refined distillate and total distillate sales.

[2] Where percentages total more than 100% for a state, a refinery capacity reported in the survey for 1973 may include capacity which was listed by the Bureau of Mines as shut down on January 1, 1974 in "Petroleum Refineries in the United States and Puerto Rico."

[3] Sources: American Petroleum Institute; Bureau of Mines; Exxon Corporation, "Competition in the Petroleum Industry," testimony before the Senate Judiciary Subcommittee on Antitrust and Monopoly, January 21, 1975.

Table 5–C shows a summary of refinery capacity reported in the survey. Refineries in the largest size class of 200 to 445 thousand barrels per day capacity constitute 6% of the refineries and 31.5% of the capacity. It has been stated that new efficient refineries will be at least 200,000 barrels per day capacity,[4] and it has been estimated elsewhere that investment cost for this size is approximately $400 million.[5] The efficient size of a refinery is in part determined by economies of scale in refining. However, overall efficiency, defined in terms of dollars per barrel of refined product, is also affected by crude oil production costs and geographic patterns, transportation costs, marketing patterns, and U.S. and foreign pricing, production control, and taxation policies.

The factors influencing the market area of any given refinery include the costs of products leaving the refinery, their volume, regional consumption patterns, the marketing patterns of the refinery owner and competing companies, the extent of processing and exchange agreements, and transportation costs.

Obviously refinery market area is not well defined by state boundaries; many refineries' output will be sold in more than one state, and by more than one company. Fifteen states (including the District of Columbia) did not have a refinery. A single company owned all of the capacity in 17 States. Five states had two companies with refineries, three states (including Puerto Rico) had three companies, and eleven states had four or more companies with refineries. For those states with one or more refining companies, the petroleum company with the greatest capacity averaged 57.8% of capacity in the state. In these states the four largest [6] companies averaged 77.0% of capacity. This regional concentration is significantly higher than that existing at the national level. Nationwide, Exxon had the most capacity, 8.6% of the total. The four largest (Exxon, Texaco, Shell, Standard of Indiana), had 30.9% of the total U.S. capacity.

These statistics of national concentration in refining are similar to those of final gasoline sales as discussed in the next chapter. However, state concentration in refining is substantially greater than in gasoline sales, the leader averaging 58% of refining capacity and 17% of final gasoline sales. The average state with a refinery had the four leaders holding 77% of capacity compared to 46% of final gasoline sales.

Partly as a result of the scale and spatial pattern of refining, there is substantial trading between companies in finished product. In state X, company A purchases or trades for output from B's nearby refinery rather than transporting it from A's own distant refinery. Or A may have greater sales than refinery product, and B the reverse. Only two of the 20 largest companies submitted data on the disposition of refinery output which could be interpreted with confidence. Some companies did not separately report products refined under processing or exchange agreements, but included these refinery outputs within their own marketing totals. Others apparently used a different base for output disposition in question 17 than that reported for refinery

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[4] John H. Lichtblau, "The Outlook for Independent Domestic Refiners to the Early 1980's," in T. D. Duchesneau, Competition in the U.S. Energy Industry, 1975.

[5] Exxon, *op. cit.*

[6] Four companies in states where at least four companies had refineries; otherwise, the number of companies having refineries in the state. Although not discussed here, the survey also includes reported annual production of gasoline, residual oil, jet fuel, diesel and No. 2 fuel oil, and feedstock sources at each refinery.

production in question 16. Still others reported that sales and exchanges were customary, but that the information was not available. For the two companies with apparently reliable data (one among the five largest, the other among the second 10), both reported that they themselves marketed 50% of their own U.S. refinery output and sold, exchanged, or otherwise traded 50% of their refined gasoline to other companies. They reported trading 43% and 58% of their U.S. residual output, 41% and 55% of their No. 2 and diesel oil, and 18% and 17% of their jet fuel. Exchanged output for both companies exceeded output sold to other companies for each product (except residual oil for the larger company).[7]

If these two major companies are representative of all of the 20 largest petroleum firms, and if trade is equally prevalent among smaller firms, then somewhat less than one-half of the petroleum products refined in the United States in 1973 were sold to the final consumer by companies other than those which refined the products. The absence of adequate data prohibits a definitive summary description of markets for trade in refined products.

In conclusion, state concentration in refinery ownership is significantly greater than national concentration. Survey response with respect to trade in refinery output was generally poor. For two major companies, somewhat less than one-half of their refinery output was sold or traded to other petroleum companies for resale. The absence of adequate data prohibits an accurate summary of markets for trading in refined products.

TABLE 5-A.—MAJOR REFINED PRODUCTS: DOMESTIC PRODUCTION, IMPORTS, DOMESTIC DEMAND, EXPORTS AND INVENTORY CHANGE, 1973

[Million barrels]

Refined product	Domestic production	+	Imports	=	Available new supply	=	Domestic demand	+	Exports	−	Inventory change
Gasoline	2,401.9		48.8		2,450.7		2,452.7		1.7		−3.7
Distillate oil	1,030.9		143.2		1,174.1		1,128.7		3.2		+42.2
Residual oil	360.7		676.2		1,036.9		1,030.2		8.5		−1.7
Liquefied gases	466.4		48.0		514.4		489.5		10.0		+15.0
Jet fuel	313.7		77.6		391.3		386.6		1.6		+3.1
Other	864.5		16.2		880.7		829.6		58.7		−7.8
Total	5,438.1		1,010.0		6,448.1		6,317.3		83.7		+47.1

Note: Totals may differ from sums because of rounding error. Inventory change means change in stocks held by petroleum natural gas, and pipeline companies. Distillate and residual production and imports include very small amounts of crude oil burned as distillate or residual. "Other" petroleum products include ethane, kerosene (excluding jet fuel), petrochemical feedstocks (excluding liquefied gases), special naphthas, lubricants, wax, petroleum coke, asphalt, road oil, and byproduct still gas burned as fuel. The major export products are petroleum coke and lubricating oil.

Source: :U.S. Bureau of Mines, petroleum statement, annual.

[7] An earlier Federal Trade Commission survey has examined sales between classes of companies; see U.S. Senate Committee on Government Operations Subcommittee on Investigation, "Investigation of the Petroleum Industry," Print, 93d Congress, 1st Session, 1973. In the PAD Districts examined, independent marketers in 1971 purchased 2% of their gasoline from the eight largest majors and 43% from nine other majors (counting Getty and Skelly as a single company). Gasoline traded in processing and exchange agreements is not included in these statistics.

TABLE 5-B.—OWNERSHIP, LOCATION, CAPACITY, AND AVERAGE DAILY OUTPUT OF U.S. REFINERIES, 1973

[In thousands of barrels]

Region/State and company	City	Average daily output					State totals for all companies, Bureau of Mines operating capacity Jan. 1, 1974	Percentage of State capacity owned by company
		Reported capacity	Gasoline	Residual fuel oil	Jet fuel	Diesel and No. 2 combined		
New England:								
Maine								
New Hampshire								
Vermont								
Massachusetts								
Rhode Island: Mobil	East Providence	7.50	—.10	0	0	1.20	7.50	100.00
Connecticut								
Middle Atlantic:								
New York:								
Ashland	Buffalo	63.00	10.58	3.28	.36	4.74	106.80	58.99
Mobil	do	42.80	18.90	5.00	1.90	9.40		40.07
New Jersey:								
Exxon	Bayway	268.30	138.50	14.50	15.40	72.40	612.00	43.84
Mobil	Paulsboro	98.00	33.60	2.90	1.60	29.00		16.01
Socal	Perth Amboy	80.00	31.90	6.90	0	32.20		13.07
Texaco	Westville	88.00	38.00	26.00	7.00	(1)		14.38
Pennsylvania:								
Ashland	Freedom	6.80	0	.36	.36	.73	693.82	.98
Atlantic Richfield	Philadelphia	185.00	65.80	14.40	.90	20.60		26.66
Gulf	do	169.00	96.00	5.50	0	55.00		24.36
Pennzoil	Renco	1.90	.30	0	0	.40		
Do	Rouseville	10.00	2.00	0	0	3.00		1.72
Do	Karns City	0	.03	0	0	.05		
Sohio	Marcus Hook	93.20	52.30	11.30	3.50	28.00		13.43
Sun Oil	do	165.00	94.40	14.00	5.00	28.70		23.78
East north-central:								
Ohio:								
Ashland	Findlay	20.00	0	0	.36	.36	569.40	
Do	Canton	60.00	1.09	1.82	0	4.74		14.05
Gulf	Toledo	49.00	31.00	.30	4.50	10.00		
Do	Cleves	42.00	29.00	.10	3.00	7.00		15.99
Sohio	Toledo/Lima	264.40	148.10	5.20	15.20	64.50		46.43
Sun Oil	Toledo	120.00	80.80	5.90	0	9.50		21.07

Indiana:								
Atlantic Richfield	East Chicago	126.00	67.50	12.60	.20	29.50	547.00	23.03
Mobil	do	47.00	24.20	3.80	0	8.10		8.59
Rock Island	Indianapolis	26.26	16.61	1.90	0	4.47		4.80
Standard of Indiana	Whiting	315.00	138.50	30.67	23.84	61.52		57.59
Illinois:								
Clark Oil & Refining	Blue Island	67.00	56.00	7.00	0	4.00	1,155.20	8.92
Do	Hartford	36.00	25.00	1.00	0	10.00		
Marathon	Robinson	128.50	86.50	0	0	32.10		11.13
Mobil	Joliet	175.00	105.10	2.90	4.30	46.70		15.15
Shell	Wood River	255.00	136.60	15.90	37.70	37.80		22.08
Standard of Indiana	do	107.00	49.26	5.63	5.48	19.00		9.26
Texaco	Lockport	72.00	34.00	1.00	8.00	15.00		13.51
Do	Lawrenceville	84.00	43.00	5.00	10.00	20.00		
Michigan:								
Total Leonard	Alma	43.30	20.00	3.00	1.00	7.00	135.88	31.87
Marathon Oil	Detroit	61.30	30.80	5.00	0	14.30		45.11
Wisconsin: Murphy Oil	Superior	37.00	17.00	4.00	0	6.00	37.00	100.00
North west-central:								
Minnesota:								
Ashland	St. Paul Park	66.00	9.76	3.00	1.04	3.63	196.49	33.59
Conoco	Wrenshall	18.00	11.00	2.00	1.00	3.00		9.16
Iowa								
Missouri: Standard of Indiana	Sugar Creek	105.00	46.67	3.45	4.45	32.33	105.00	100.00
North Dakota: Standard of Indiana	Mandan	48.00	23.23	3.02	2.54	16.23	53.00	90.57
South Dakota								
Nebraska: Farmland Industries	Scottsbluff	5.00	3.00	.40	0	1.10	5.00	100.00
Kansas:								
American Petrofina	El Dorado	22.50	12.47	.23	0	3.80	406.81	5.53
Apco	Arkansas City	24.00	20.00			3.00		5.90
Farmland Industries	Coffeyville	35.00	18.00	1.00	0	8.00		13.52
Do	Phillipsburg	20.00	11.00	.70	0	4.00		
Mobil	Augusta	50.00	26.30	.40	3.30	10.60		12.29
National Cooperative Refinery	McPherson	54.00	29.00	1.00	0	14.00		13.27
Phillips Petroleum	Kansas City	85.00	47.10	3.70	5.80	14.50		20.89
Skelly	El Dorado	72.00	52.40	.30	0	19.00		17.70
South Atlantic:								
Delaware: Getty	Delaware City	140.00	72.10	.40	1.40	28.70	140.00	100.00
Maryland:								
Socal	Balitmore	13.50					10.00	[2] 135.00
Standard of Indiana	do	10.00	0	0	0	0		[2] 100.00
District of Columbia								
Virginia: Standard of Indiana	Yorktown	53.00	29.52	1.41	0	18.94	53.00	100.00
West Virginia: Pennzoil	Falling Rock	5.00	1.00	0	0	1.00	18.90	26.46
North Carolina							12.00	
South Carolina								
Georgia: Standard of Indiana	Savannah	12.00	0	0	0	0	14.50	82.76
Florida								

TABLE 5–B.—OWNERSHIP, LOCATION, CAPACITY, AND AVERAGE DAILY OUTPUT OF U.S. REFINERIES, 1973—Continued

[In thousands of barrels]

Region/State and company	City	Reported capacity	Average daily output				State totals for all companies, Bureau of Mines operating capacity Jan. 1, 1974	Percentage of State capacity owned by company
			Gasoline	Residual fuel oil	Jet fuel	Diesel and No. 2 combined		
East south-central:								
Kentucky:								
Ashland Oil	Louisville	25.00	3.65	.73	0	1.82	163.50	98.47
Do	Catlettsburg	136.00	21.53	2.55	.73	11.31		
Tennessee							31.50	
Alabama: Hunt Oil	Tuscaloosa		1.30	2.80	1.50	2.30	37.10	100.00
Mississippi:								
Southland Oil	Lumberton	4.27	0	.02	0	.87	289.50	5.43
Do	Sandersville	8.33	.33	.02	1.43	1.05		
Do	Yazoo City	3.14	.06	.06	.31	.51		
Socal	Pascagoula	220.00	110.20	12.30	27.40	52.60		75.99
West south-central:								
Arkansas: Lion Oil	El Dorado	40.00	7.24	1.05	0	4.90	57.20	69.93
Louisiana:								
Cities Service	Lake Charles	268.00	147.70	12.60	27.30	44.90	1,697.45	15.79
Conoco	West Lake	83.00	41.00	3.00	4.00	31.00		4.89
Exxon	Baton Rouge	436.60	208.10	10.70	46.20	87.00		25.72
Gulf	Belle Chasse	174.00	94.00	.60	9.00	67.00		11.61
Do	Venice	23.00	14.00	0	0	2.00		
Kerr-McGee	Cotton Valley	6.00	2.00	1.00	0	0		.35
Murphy Oil	Meraux	93.00	25.00	7.00	11.00	13.00		5.48
Pennzoil	Shreveport	20.00	11.10	4.10	.30	2.70		1.18
Shell	Norco	240.00	114.70	11.30	38.10	54.80		14.14
Tenneco	Chalmette	87.00	52.00	1.00	0	13.00		5.13
Texaco	Convent	140.00	71.00	11.00	25.00	34.00		8.25
Oklahoma:								
Apco	Cyril	10.00	7.00			2.00	483.64	2.07
Champlin Petroleum	Enid	48.55	32.53	0	1.28	12.65		10.04
Conoco	Ponca City	112.00	61.00	1.00	15.00	21.00		23.16
Kerr-McGee	Wynnewood	34.00	25.00	2.00	0	4.00		7.03
Sun Oil	Duncan	48.50	28.80	0	1.60	11.80		28.33
Do	Tulsa	88.50	48.90	0	0	7.30		
Texaco	do	50.00	30.00	5.00	4.00	11.00		10.34

Texas:								
American Petrofina	Big Springs	65.00	28.80	.32	2.03	11.00	3,794.25	4.61
Do	Mt. Pleasant	26.00	11.69	.71	0	4.94		
Do	Port Arthur [3]	84.00	15.93	5.10	0	12.59		
Arco	Houston	210.00	97.20	.40	8.20	60.20		5.53
Crown Central Petroleum	do	96.00	51.00	2.00	0	22.00		2.53
Diamond Shamrock	Sunray	45.00	37.00	0	4.00	11.00		1.19
Exxon	Baytown	400.00	164.00	19.90	30.10	84.40		10.54
Gulf	Port Arthur	312.10	172.43	6.98	29.47	68.94		8.23
Marathon Oil	Texas City	56.40	31.30	4.80	.20	15.50		1.49
Mobil	Beaumont	335.00	149.90	19.60	15.80	86.80		8.83
Phillips Petroleum	Borger	95.00	90.30	0	9.10	17.10		4.74
Do	Sweeny	85.00	60.90	3.90	.90	24.20		
Shell	Deer Park	268.00	107.20	25.00	18.60	23.70		7.83
Do	Odessa	29.00	19.60	1.80	2.20	4.50		
Southwestern O. & R	Corpus Christi	114.00	20.00	2.00	0	21.00		3.00
Socal	El Paso	71.00	38.00	3.00	6.00	18.00		1.87
Standard of Indiana	Texas City	333.00	177.10	6.98	.07	68.03		8.78
Sohio	Port Arthur	(3)	9.20	3.00	0	6.10		
Sun Oil	Corpus Christi	57.00	30.30	0	1.10	17.20		1.50
Texaco	Amarillo	20.00	13.00	0	1.00	3.00		
Do	El Paso	17.00	10.00	0	1.00	4.00		12.91
Do	Port Arthur	406.00	149.00	40.00	61.00	82.00		
Do	Port Neches	47.00	0	0	0	0		
Texas City Refinery	Texas City	60.00	24.00	2.00	0	16.00		1.58
Union Texas Petroleum	Winnie	9.00	8.00	0	0	2.00		.24
Mountain:								
Montana:								
Conoco	Billings	46.00	31.00	1.00	0	7.00	158.13	29.09
Exxon	do	45.00	22.80	1.70	3.40	9.10		28.46
Phillips Petroleum	Great Falls	5.70	2.60	.20	.60	1.20		3.60
Idaho								
Wyoming:								
Standard of Indiana	Casper	43.00	15.18	.12	.80	6.06	169.09	25.43
Texaco	do	21.00	10.00	1.00	1.00	4.00		12.42
Colorado: Conoco	Commerce City	27.00	11.00	2.00	4.00	4.00	47.50	56.84
New Mexico: Shell	Gallup	16.60	12.20	.30	.10	4.30	57.43	28.90
Arizona								
Utah:								
Phillips Petroleum	Woods Cross	23.00	12.80	.60	.60	6.30	131.00	17.56
Socal	Salt Lake City	43.00	18.70	3.20	4.40	12.40		32.82
Standard of Indiana	do	39.00	21.15	1.06	1.78	11.01		29.77
Nevada							14.00	

TABLE 5-B.—OWNERSHIP, LOCATION, CAPACITY, AND AVERAGE DAILY OUTPUT OF U.S. REFINERIES, 1973—Continued

[In thousands of barrels]

Region/State and company	City	Average daily output					State totals for all companies, Bureau of Mines operating capacity Jan. 1, 1974	Percentage of State capacity owned by company
		Reported capacity	Gasoline	Residual fuel oil	Jet fuel	Diesel and No. 2 combined		
Pacific:								
Washington:								
Arco	Ferndale	96.00	49.70	14.10	15.30	13.80	342.00	28.07
Mobil	do	71.50	35.20	6.10	7.70	13.80	----------	20.91
Shell	Anacortes	88.00	51.90	2.40	13.50	12.20	----------	25.73
Texaco	do	63.00	34.00	4.00	3.00	15.00	----------	18.42
Oregon: Socal	Portland	14.00	----------				14.00	100.00
California:								
Arco	Carson	165.00	67.20	34.90	22.10	18.90	1,774.74	9.30
Beacon Oil	Hanford	12.00	3.00	3.00	1.00	3.00	----------	.68
Exxon	Benica	87.00	61.40	0	9.90	8.70	----------	4.90
Fletcher Oil & Refining	Carson	----------	4.33	4.87	1.60	1.68	----------	
Gulf	Hercules	27.00	19.00	0	0	5.00	----------	4.34
Do	Santa Fe Springs	50.00	26.00	15.00	0	1.50	----------	
Mobil	Torrance	123.50	54.70	3.80	8.90	14.00	----------	6.96
Phillips Petroleum	Martinez	110.00	58.30	12.50	1.90	17.30	----------	6.20
Powerine	Santa Fe Springs	28.50	15.00	9.00	2.00	.50	----------	1.61
Shell	Martinez	100.00	43.70	13.40	10.40	5.50	----------	10.48
Do	Wilmington	86.00	41.80	16.90	14.70	10.30	----------	
Socal	Bakersfield	26.00	2.50	1.30	0	2.10	----------	24.57
Do	El Segundo	220.00	75.50	53.60	34.40	27.80	----------	
Do	Richmond	190.00	66.90	49.50	24.70	33.20	----------	
Texaco	Wilmington	75.00	39.00	19.00	0	6.00	----------	4.23
Alaska: Socal	Kenai	20.00	0	.30	3.70	5.90	60.00	33.33
Hawaii: Socal	Honolulu	35.00	13.20	14.90	8.70	3.30	40.00	87.50
Puerto Rico:								
Commonwealth Oil & Refining	Penuelas	161.00	58.60	47.10	.20	8.70	232.80	[2] 69.16
Gulf	San Juan	37.60	11.20	9.38	----------	6.44	----------	[2] 16.15
Sun Oil	Yabuco	85.00	15.70	21.60	0	28.10	----------	[2] 36.51

[1] Diesel fuel not available, No. 2 oil equals 18,000.
[2] State total percents may total more than 100 percent because operating capacity, supplied by the Bureau of Mines, was used rather than total reported capacity. Total reported capacity may or may not include shutdown capacity.
[3] American Petrofina purchased this British/Standard of Ohio refinery on July 1, 1973.

TABLE 5-C.—REFINERY CAPACITY IN SURVEY, THOUSAND BARRELS PER CALENDAR DAY

Size	Number of refineries	Capacity in this size	Average size	Percent of total capacity	Percent of refineries
0.5–99.9	190	5,281	27.8	36.5	73.1
100.0–149.9	15	1,754	117.0	12.1	5.8
150.0–199.9	9	1,592	176.9	11.0	3.5
200.0–445.0	15	4,556	303.7	31.5	5.8
Not in survey	[1] 31	1,270	41.0	8.8	11.9
Total, United States	260	14,453	55.6	100.0	100.0

[1] The largest U.S. refineries not reported in the survey were 5 in the 100,000 to 152,000 barrels per day range.

Sources: Survey; Bureau of Mines.

VI. Marketing

The survey sought information which would describe the marketing structure of major petroleum products. Gasoline is a relatively uniform product (relative to the diversity in other forms of petroleum products), and has a single major use in motor vehicles. Aviation gasoline is only seven-hundredths of 1 percent of gasoline sales. Therefore data describing gasoline marketing cover 39 percent of the volume of oil products sold in the United States in 1973.

Residual oil is used primarily in power generation, heating in large buildings, and for industrial purposes. In 1973, it accounted for 16 percent of the volume of refined product sales. More residual oil is imported than is refined in the United States.

Distillate oils have a wide range of uses, including heating, industrial boilers, power generation, locomotives, ships, and trucks. The two largest categories of distillate products are No. 2 grade hearing oil and diesel fuel with 1973 sales of 301.4 and 273.4 million barrels respectively. The survey sought marketing data on these two fuels.

Jet fuel has a single major use, aviation, and represents 6 percent of marketed products. Residual fuel has the same span of uses as distillates, but, because of its physical and economic properties, is more concentrated in electric utility and industrial boiler use. Both fuel types were part of the marketing section of the survey.

Liquefied gases come in various forms and have uses as diverse as LPG home cooking and the manufacture of synthetic rubber. Because of this diversity in form and use, data on liquefied gases were not requested in the survey.

In summary, the survey sought marketing data on the major petroleum products considered in the context of volume of domestic sales and uniformity of form and use. Table 6–A shows the products surveyed, their volume, and their estimated proportions of total volume and total energy sales in 1973.

The petroleum products included within the marketing portion of the survey constituted 72 percent of the energy in all petroleum products sold and 33 percent of all energy consumed in the United States in 1973.

TABLE 6-A.—SURVEYED PETROLEUM PRODUCTS, U.S. SALES, AND ENERGY CONTENT, 1973

Product	Sales (million barrels)	Total refined products (percent)	Energy content (quadrillion Btu)	Total refined products (percent)
Gasoline	2,452.7	38.8	12.9	37.0
Residual oil	1,030.2	16.3	6.5	18.6
Jet fuel	386.6	6.1	2.2	6.3
No. 2 heating oil	301.4	4.8	1.8	5.2
Diesel oil	273.4	4.3	1.6	4.6
Total, surveyed products	4,444.3	70.4	25.0	71.6
Total U.S. sales of all petroleum products	6,317.3	100.0	34.9	100.0

Note: Rounding error may result in difference between sums and totals. Energy content is assumed to be 5.248, 6.287, 5.606, 5.825, 5.825, and 5.517 million Btu per barrel for gasoline, residual oil, jet fuel, No. 2 heating oil, diesel oil, and the average of all products, respectively.

Sources: U.S. Bureau of Mines, Petroleum Statement, Annual, and Fuel Oil Sales, Annual.

The market structure of the industry has been viewed primarily through the concept of national or regional final sales of gasoline as a percentage of that regional or national market. Recent publications by academic observers, the Federal Trade Commission, and the Exxon Corp. reflect this approach.[1] In fact, most studies of market structure seemed based upon the annual reports appearing in National Petroleum News.

While accurate, these comparisons of gasoline percent-of-sales are not adequate to describe the interactions between petroleum companies in marketing. Gasoline is traded in many types of intercompany transaction. Consider the various ways in which a company may dispose of gasoline: (1) Sell through its own branded service stations, either company owned or dealer owned. (2) Sell directly to a large gasoline user such as a manufacturing company or a government agency. (3) Sell to another oil company for that company to resell through its service stations, et cetera. (4) Sell to an independent broker, jobber, or distributor for resale to independent service stations or to other oil companies. (5) Sell to other subsidiary or operating companies affiliated with the same parent oil company. (6) Deliver to another oil company according to the processing agreement by which the gasoline was refined. (7) Deliver to another oil company in exchange for gasoline or some other product from that company.

Seen from the perspective of the retail sale of a given brand of gasoline, the consumer may be purchasing gasoline refined by that company, or he may be purchasing gasoline refined by another oil company and received by his or her service station through any of the methods described above.

Traditionally, market structure analysis has considered only the marketing of branded gasoline. This is inadequate to describe the interactions in gasoline marketing. Suppose a company holds 15 percent of the gasoline market in a State through sales by its service stations and sells or otherwise disposes of another 15 percent to independent brands and to other majors. Now if these other companies develop their own sources of supply, the first company experiences a major reduction in volume and percentage of sales. But according to the common method of defining market structure, the company's position is unchanged.

The survey sought to compile an accurate description of interactions by requesting marketing data on a state and foreign country basis for the five product types mentioned above. In general, the responses are not adequate. These sales data were not reported by Texaco, Atlantic Richfield, Sun, Union-California, Continental, Ashland, Amerada Hess, or Tenneco for 1973. In aggregate, these 8 companies in the largest 20 had 24 percent of national final sales.[2]

However, Standard Oil of California's response can be used to indicate the type of interactions noted above. Standard Oil of California—SOCAL—reported data on six U.S. operating companies and five foreign operating companies in Canada, South America,

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[1] T. D. Duchesneau, Competition in the U.S. Energy Industry, Cambridge: Ballinger, 1975. U.S. Senate, Committee on Government Operations, "Preliminary Federal Trade Commission Staff Report on Its Investigation of the Petroleum Industry," Print, 93d Cong., 1s tsess., 1973. Exxon Corp., "Competition in the Petroleum Industry," testimony before the Senate Judiciary Subcommittee on Antitrust and Monopoly, Jan. 21, 1975.

[2] The discussion in this section is based upon the responses to question 19. Question 20 had fewer responses, fewer responses from major companies, and reported data were generally not on a state basis.

northern Europe, and southern Europe. Tables 6–B and 6–C show a summary of product sources and disposition for SOCAL's Chevron-Southern Division and Standard Oil of Kentucky.

TABLE 6-B.—STANDARD OIL OF CALIFORNIA: REFINED PRODUCT SOURCES FOR STANDARD OIL OF KENTUCKY AND CHEVRON-SOUTHERN DIVISION, 1973

Refined product	Refinery production	Processing receipts	Exchange receipts	Trade purchases	Inter-company purchases	Inventory reduction	Total
Product sources, thousands of barrels per calendar day:							
Gasoline	110.2	20.2	35.1	13.6	0	4.8	183.9
Jet fuel	25.8	0	8.8	0	4.2	0	38.8
Distillate oil	53.7	10.9	36.0	11.8	5.6	0	118.0
Residual oil	12.3	0	2.0	3.5	27.5	0	45.3
Product sources, percent:							
Gasoline	60	11	19	7	0	3	100
Jet fuel	66	0	23	0	11	0	100
Distillate oil	46	9	31	10	4	0	100
Residual oil	27	0	4	8	61	0	100

TABLE 6-C.—STANDARD OIL OF CALIFORNIA: REFINED PRODUCT DISPOSITION FOR STANDARD OIL OF KENTUCKY AND CHEVRON-SOUTHERN DIVISION, 1973

Refined product	Marketing	Resale, refinery	Inter-company sales	Processing deliveries	Exchange deliveries	Inventory increase	Total
Product disposition, thousands of barrels per calendar day:							
Gasoline	115.1	1.3	0.5	21.8	45.2	0	183.9
Jet fuel	33.7	0	2.1	0	2.5	.5	38.8
Distillate oil	72.7	1.7	3.0	1.6	29.0	9.7	118.0
Residual oil	39.0	2.2	.4	0	2.3	1.4	45.3
Product disposition, percent:							
Gasoline	63	1	0	11	25	0	100
Jet fuel	87	0	5	0	6	2	100
Distillate oil	62	1	3	1	25	8	100
Residual oil	86	5	1	0	5	3	100

If intercompany purchases or sales originate or result in trade in refined products with other companies, then Tables 6–B and 6–C understate the trade in finished products. These tables show that this operating group of SOCAL received 37 percent of its gasoline from other companies, and delivered 37 percent to other companies. In distillate oil, 50 percent was received from other companies and 27 percent was delivered to other companies. This group reported SOCAL exchange receipts and deliveries of finished products to 28 other companies in 1973, including gasoline delivery to 16 other companies and gasoline receipts with 17 companies. Trade purchases were reported with 20 companies. The other companies involved in the exchange of finished products included Ashland, Atlantic Richfield, Cities Service, British Petroleum, Marathon, Phillips, Shell, Tenneco, Union-California, Gulf, Standard of Ohio, Texaco, and Exxon.

One illustration of regional influence is the geographic pattern of leading marketers in each State where leading marketer is defined as the largest seller of gasoline through all these outlets: branded retailers and wholesalers, unbranded retailers and wholesalers, and direct sales. Figure 6–B shows this pattern. Standard of Indiana is the leading

seller in 15 States in the Midwest and Plains. Exxon is the leading seller in 14 States, including the District of Columbia, in the East and South. Standard of California is the leading seller in 8 States in the Far West and South. Mobil is the leading seller in 6 States in the Northeast.

This pattern differs somewhat from the National Petroleum News (NPN)[3] pattern in Figure 6–C. There are two reasons for this difference. One difference is that the survey responses in 6–B are on a total transactions basis while the NPN figures are on a final sales basis. A second and more significant reason is that Atlantic Richfield, Texaco, and Continental did not report State marketing data for 1973.[4] According to the NPN data, these 3 nonresponding companies were the leading marketers in final sales in 6 States; these States had 10 percent of 1973 gasoline sales.

The basic pattern is similar in each data source. Standard of Indiana, Standard of California, Exxon, and Mobil are the leading sellers in 43 States in the survey data, and are the leading marketers in 39 States in the NPN data. It is notable that the other major companies (Texaco, Shell, Gulf, Atlantic Richfield, Phillips, Sun) do not exhibit the same degree of regional dominance as the four named companies. A historical explanation is that the four regionally dominant companies were each units of the Standard Oil Trust at its dissolution in 1911 with marketing territories at that time similiar to the 1973 pattern in Figures 6–B and 6–C. Figure 6–D shows the marketing territories of the Standard Oil units in 1911.[5]

The basic relationships between the 1911 Standard Oil units and contemporary petroleum companies are as follows: (1) Standard Oil of New Jersey has become the Exxon Corp. (2) The Vacuum Oil Co.—a 1911 Standard Oil unit—merged with Standard of New York, becoming Socony Vacuum and later Mobil. (3) Standard of Kentucky is now a subsidiary of Standard of California. (4) Standard of Louisiana was acquired by Standard of New Jersey. (5) Standard of Nebraska was acquired by Standard of Indiana. (6) The Waters-Pierce Oil Co. became the Pierce Co., which was bought by Sinclair. (7) Sinclair merged with the Atlantic Richfield Co., which had itself been formed from the merger of the Atlantic Refining Co., a 1911 unit, and the Richfield Oil Co., which had been a Sinclair subsidiary.

Market concentration within a State is generally substantially higher than concentration for the country (Table 6–D.) In the average State in 1973, the leading marketer averaged 17 percent of final sales, and the four leading marketers averaged 46 percent. These may be compared to the national figures of 8 percent for the leading marketer—Texaco—and 30 percent for the four leaders, Texaco, Exxon, Shell, and Standard of Indiana. It appears that concentration within States declined from 1969 to 1972, and began rising in 1973. (It should be recalled that these figures are final sales, and that market concentration based upon total transactions which include sales to other companies for resale, exchange deliveries, et cetera, would differ.)

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[3] The National Petroleum News reports data collected by the Lundberg Survey, Inc.
[4] Exxon reported final sales rather than transactions.
[5] R. W. Hidy and M. E. Hidy, History of Standard Oil Co. (New Jersey), New York, Harper, 1955, Vol. I, p. 458.

TABLE 6–D.—4 LARGEST MARKETERS BY REPORTED SHARE OF FINAL SALES, 1973

[In percent]

	Largest	4 largest
United States	8.0	30.0
New England:		
Connecticut	14.4	44.4
Maine	13.7	46.0
Massachusetts	14.9	42.7
New Hampshire	12.4	41.4
Rhode Island	12.3	43.4
Vermont	16.5	48.4
Mideast:		
Delaware	17.8	51.3
District of Columbia	30.4	71.9
Maryland	19.3	45.7
New Jersey	19.7	44.4
New York	19.1	47.5
Pennsylvania	16.8	48.5
Southeast:		
Alabama	13.4	37.5
Arkansas	13.8	36.9
Florida	11.7	37.6
Georgia	12.4	38.8
Kentucky	16.4	49.4
Louisiana	17.5	43.0
Mississippi	13.2	37.1
North Carolina	16.8	41.4
South Carolina	18.2	46.4
Tennessee	15.4	39.5
Virginia	18.9	47.2
West Virginia	20.1	54.3
Great Lakes:		
Illinois	19.1	41.7
Indiana	14.1	37.7
Great Lakes—Continued		
Michigan	14.5	39.0
Ohio	25.9	48.1
Wisconsin	14.9	36.2
Plains:		
Iowa	18.4	38.5
Kansas	11.9	32.5
Minnesota	16.3	40.3
Missouri	14.6	33.8
Nebraska	12.2	39.8
North Dakota	27.2	62.5
South Dakota	20.9	47.1
Mountain:		
Colorado	12.3	41.2
Idaho	9.9	36.7
Montana	15.1	47.4
Utah	15.0	46.9
Wyoming	13.2	44.0
Southwest:		
Arizona	17.0	46.8
Nevada	17.3	51.5
New Mexico	12.5	39.8
Oklahoma	12.2	37.9
Texas	16.2	48.0
Far West:		
Alaska	39.2	94.0
California	16.6	52.3
Hawaii	32.0	87.7
Oregon	16.4	53.8
Washington	15.8	50.6

Source: National Petroleum News.

The survey data for residual and distillate oil and jet fuel generally show greater concentration than exists for gasoline. In 24 States, a single company supplied more than 70 percent of the residual oil in 1973 (Figure 6–E). In 35 States, a single company supplied 50 percent or more of the residual oil (Figure 6–F). Figure 6–G shows the leading company in each State.

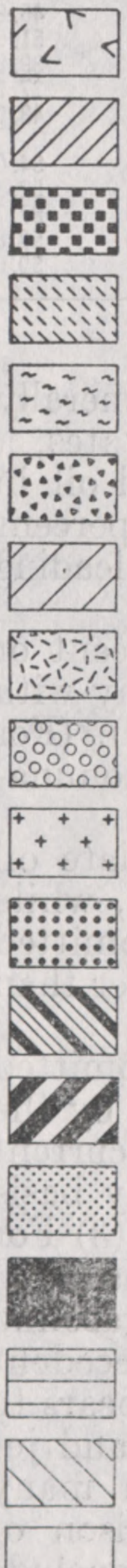
For jet fuel, 23 States had a single company with 70 percent or more of total transactions, and 38 States had a single company with 50 percent or more of total transactions (Figures 6–H—6–J). (For these comparisons of residual oil and jet fuel, recall that the denominator in each State is total transactions reported in the survey.)

Many responding companies did not separate No. 2 distillate oil and diesel oil from other types of distillate oil in their data, while other companies did make such distinctions. However, the submitted data suggests that concentration in distillate oil supply is greater than in gasoline and less than in residual oil supply.

Our major conclusions arising from the summary of the submitted marketing data are as follows: (1) There is significant trading by the companies in finished products which is not reflected in current published data. (2) Concentration measured on a total supply basis may be greater than that measured on a final sales basis. (3) For individual States, concentration is substantially higher than national concentration. (4) The pattern of leading companies in gasoline marketing resembles the marketing territories of the antecedent Standard Oil Trust Companies of 1911. (5) Concentration appears to be lowest in gasoline, followed by distillate oils, residual oil, and jet fuel. (6) The absence of survey marketing responses from many major companies inhibits firm conclusions, but the comparison of gasoline data from other sources to the survey data leads us to conclude

that the significance of the missing data is with respect to quantitative rather than qualitative description. (7) Definitive description of marketing interactions and concentration requires a continuing public information system. (8) The conventional approach to market concentration of calculating national market shares of final branded gasoline sales will show less concentration than any other measure discussed here, and necessarily omits trade in finished products between companies.

FIGURE 6A. MAP LEGEND
(Figures 6B - 6J)



Atlantic Richfield

Continental Oil

Exxon

Farmland Industries

Getty Oil

Gulf Oil

Kerr-McGee

Marathon Oil

Mobil Oil

Murphy Oil

Phillips Petroleum

Shell Oil

Southland Oil

Standard Oil of California (including KYSO and Chevron-West)

Standard Oil of Indiana

Standard Oil of Ohio

Texaco

No sales reported by any company responding to the survey

FIGURE 6B.
SURVEY DATA, GASOLINE SALES, (total transactions) , 1973
Leading marketer in each state.

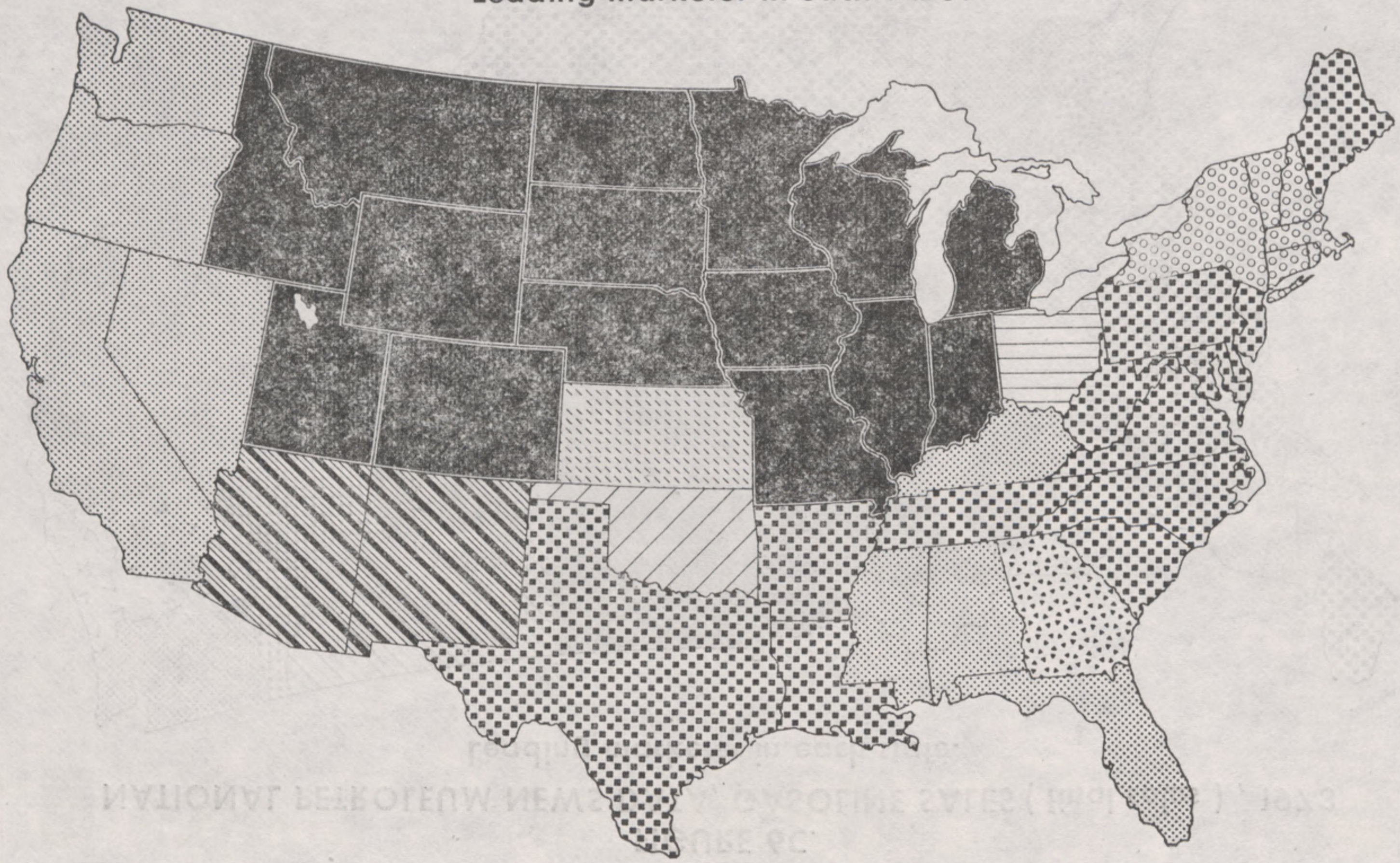


FIGURE 6C.
NATIONAL PETROLEUM NEWS DATA, GASOLINE SALES (final sales) , 1973
Leading marketer in each state.

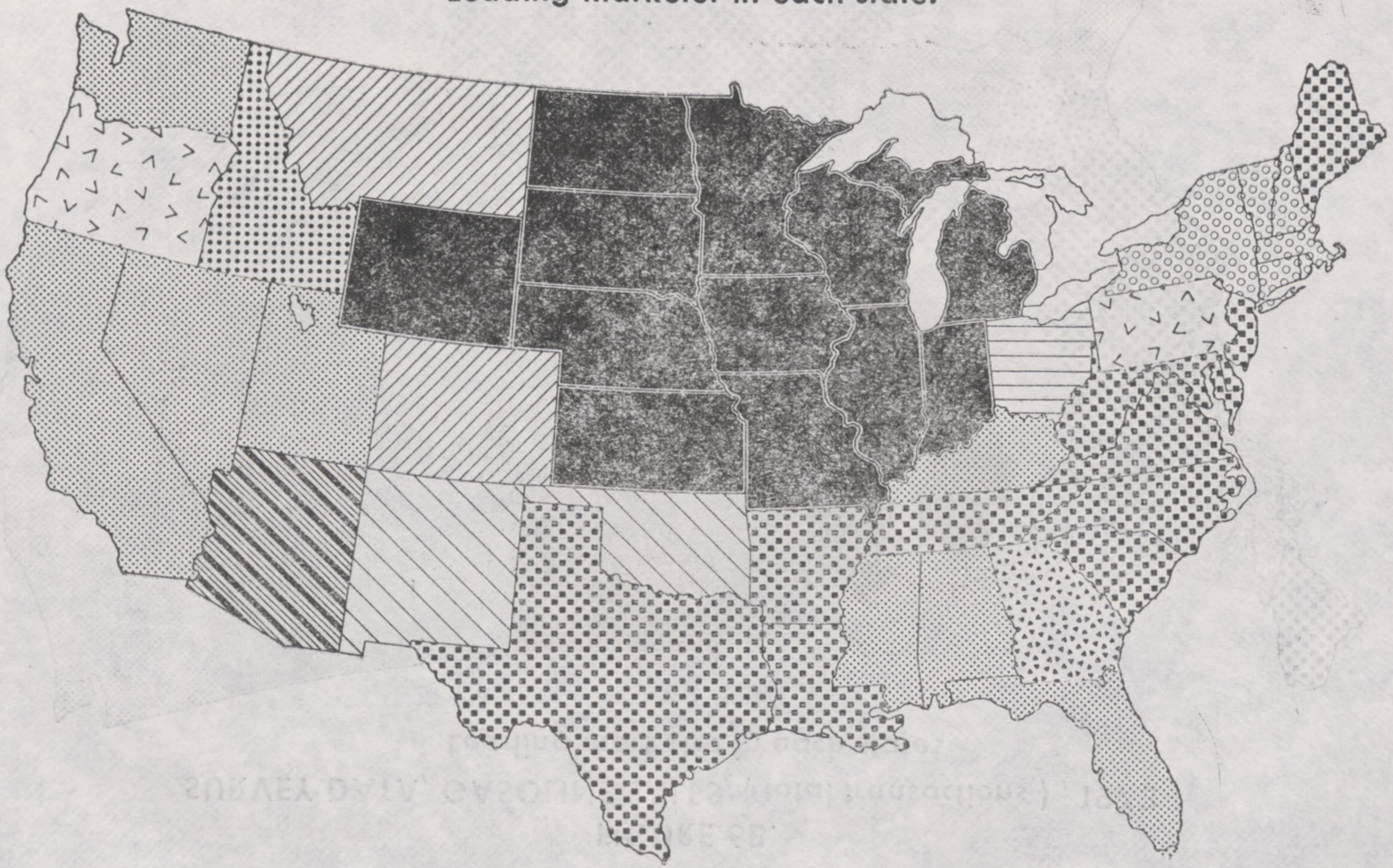


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FIGURE 6D.
MARKETING TERRITORIES, STANDARD OIL UNITS, 1911

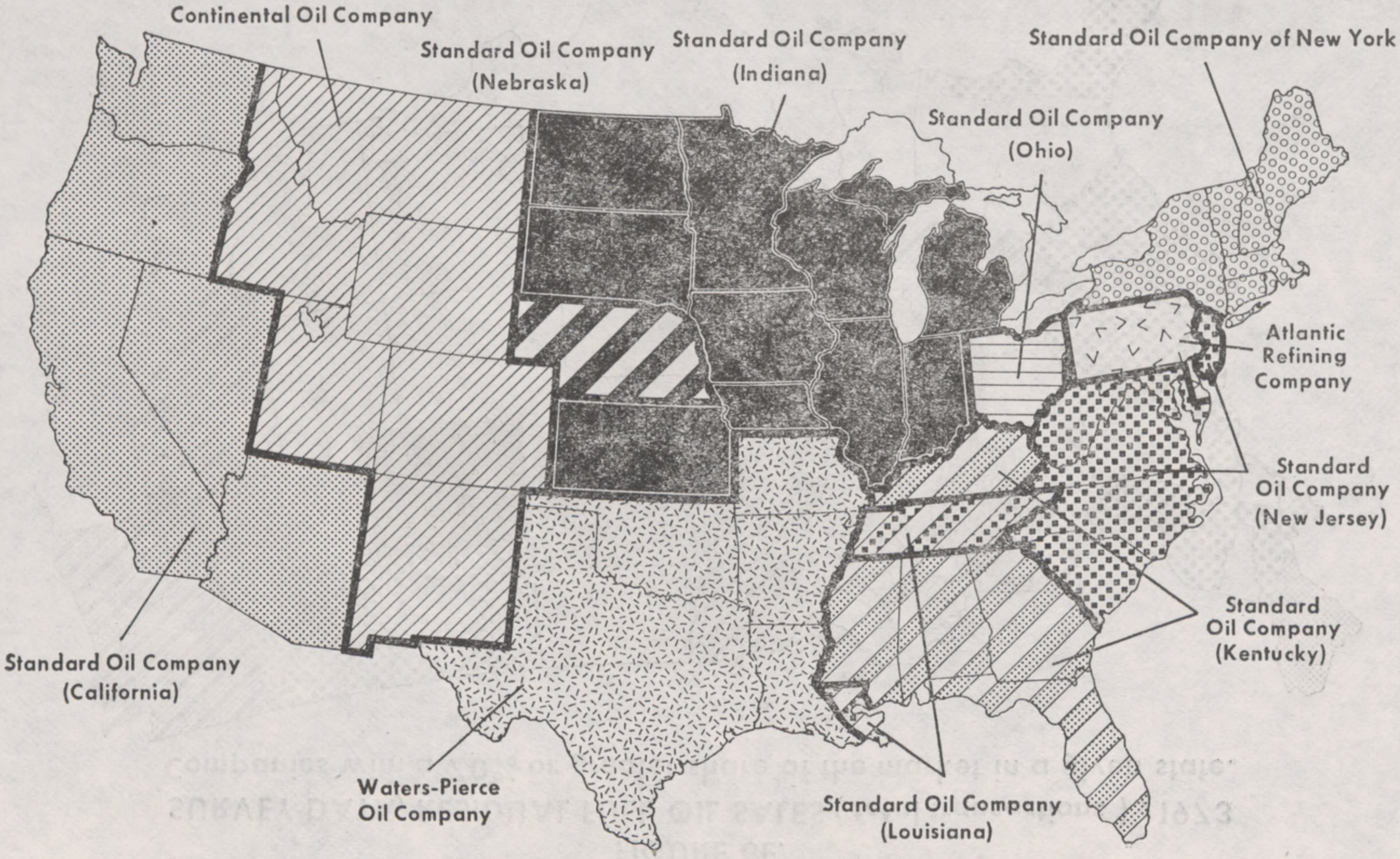


FIGURE 6E.

SURVEY DATA, RESIDUAL FUEL OIL SALES (total transactions) , 1973

Companies with a 70% or greater share of the market in a given state.

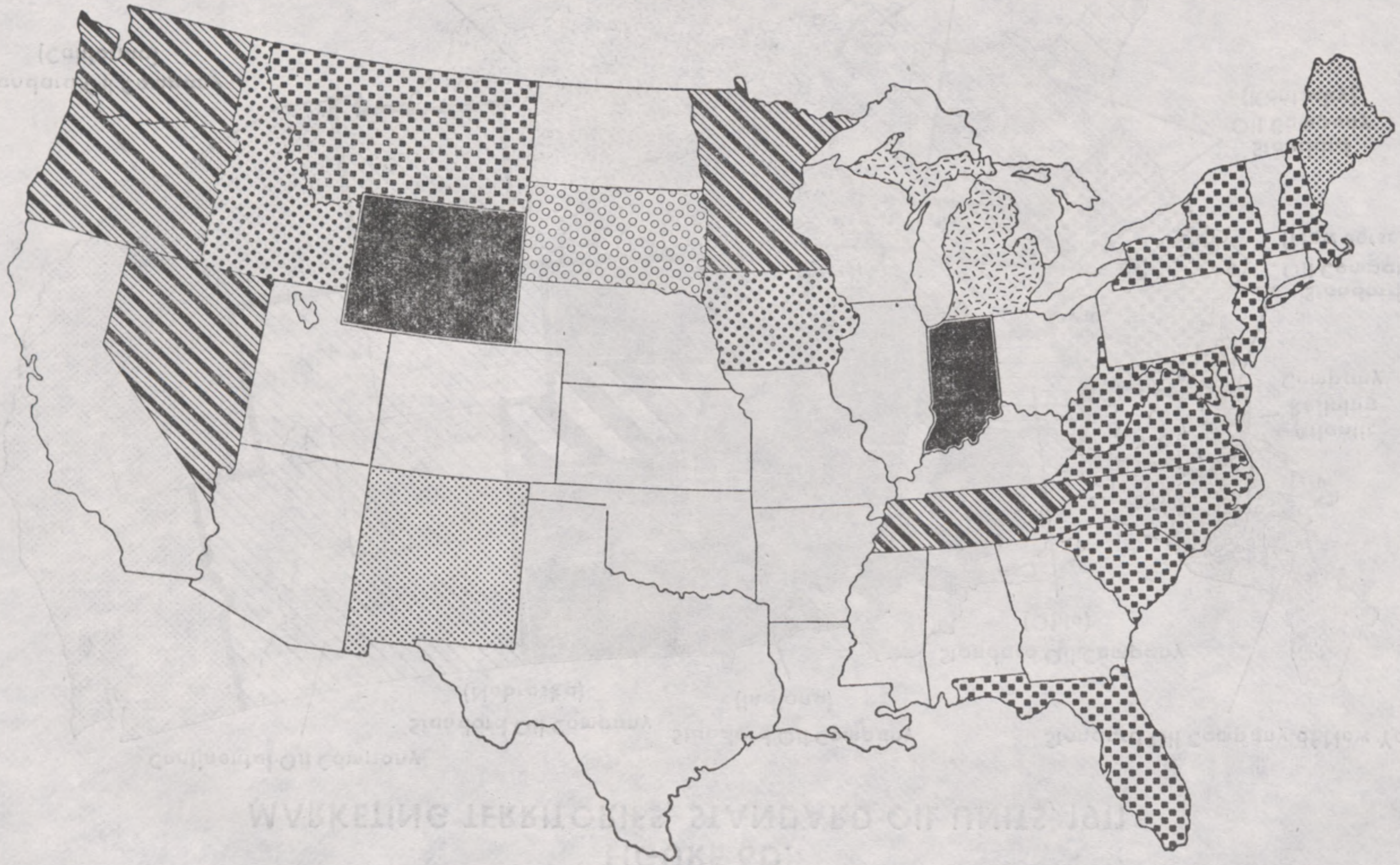


FIGURE 6F.

SURVEY DATA, RESIDUAL FUEL OIL SALES (total transactions), 1973

Companies with a 50% or greater share of the market in a given state.

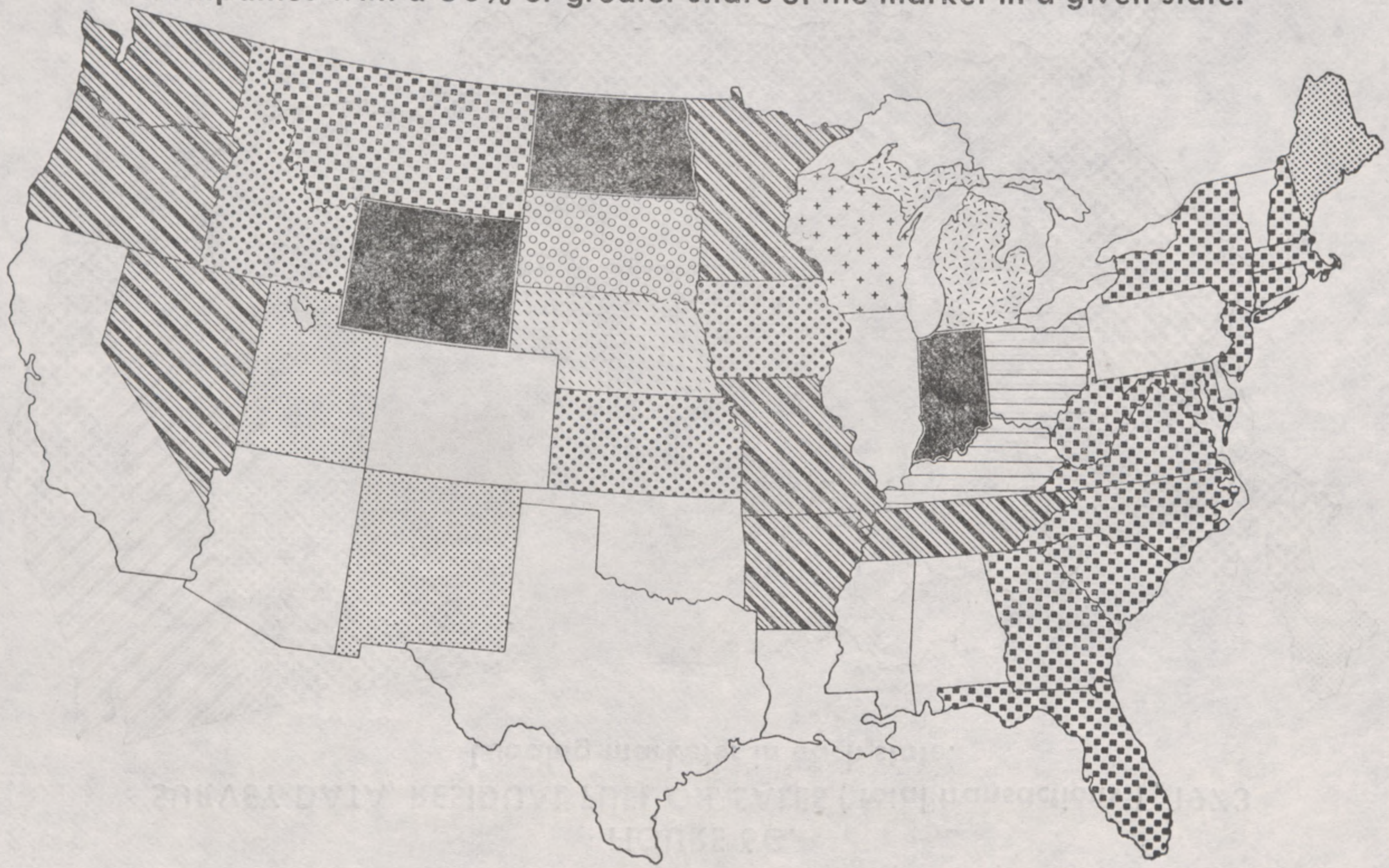


FIGURE 6G.
SURVEY DATA, RESIDUAL FUEL OIL SALES (total transactions) , 1973
Leading marketer in each state.

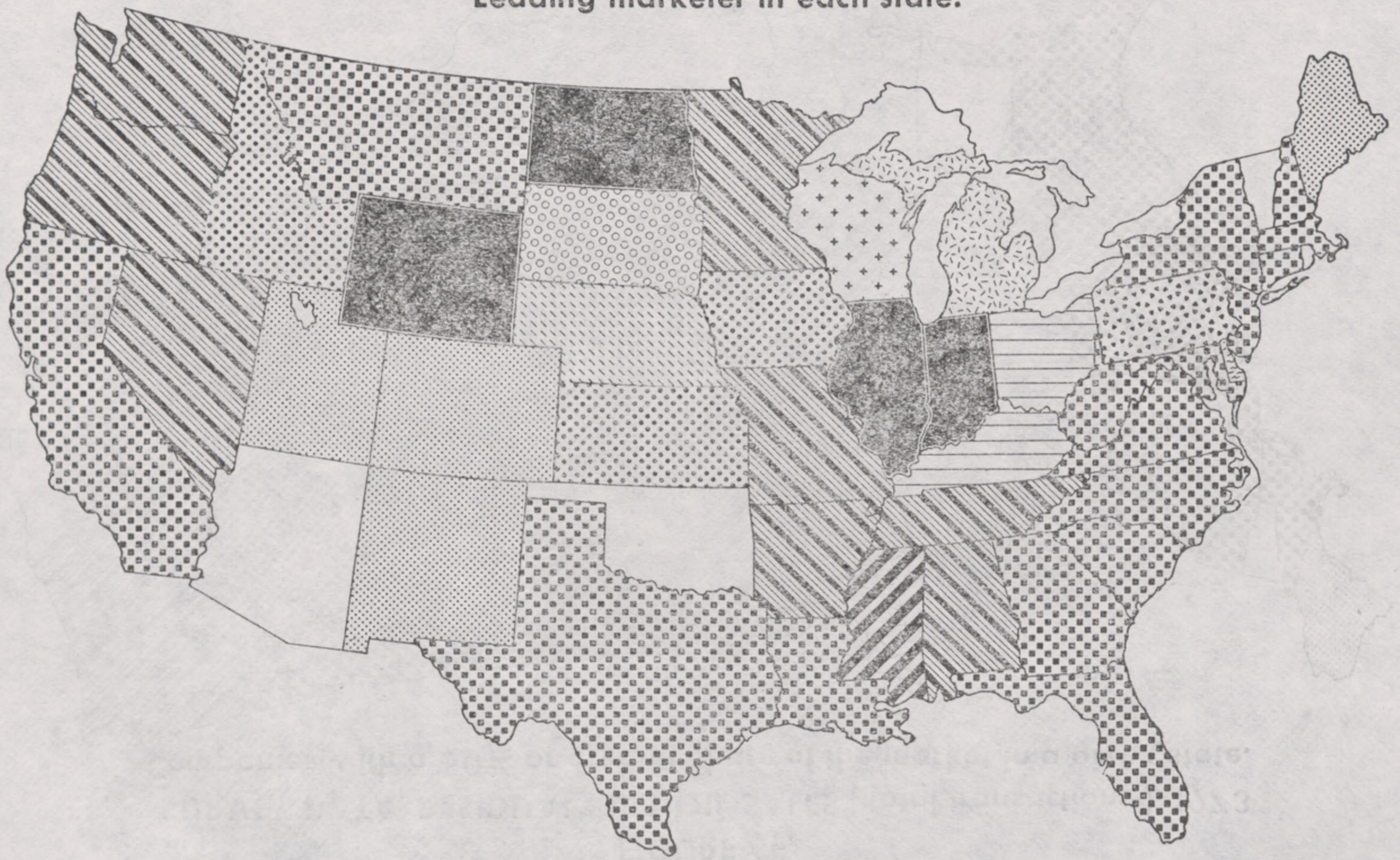


FIGURE 6H.

SURVEY DATA, JET FUEL SALES (total transactions), 1973
Companies with a 70% or greater share of the market in a given state.

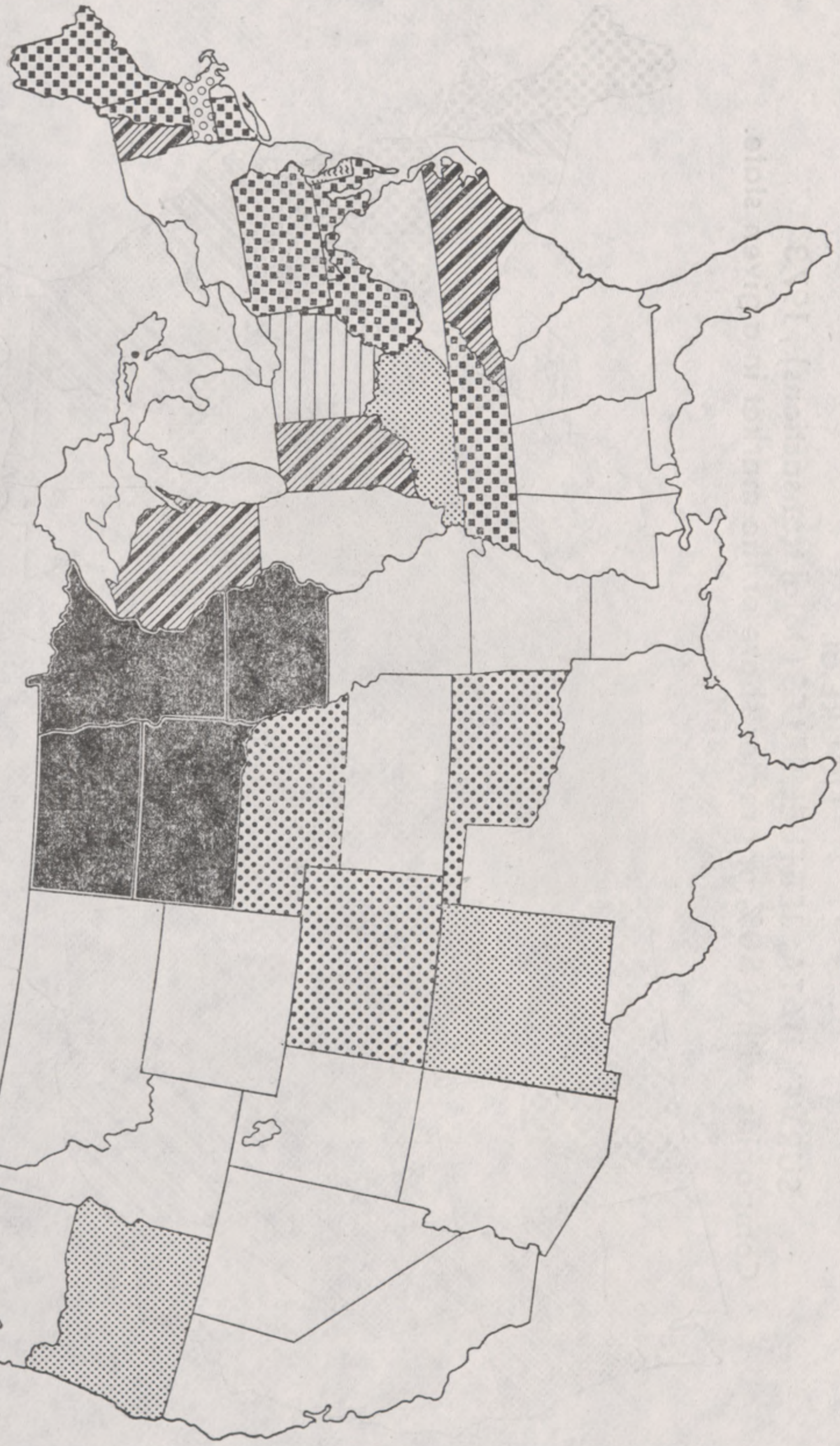


FIGURE 6I.
SURVEY DATA, JET FUEL SALES (total transactions) , 1973
Companies with a 50% or greater share of the market in a given state.

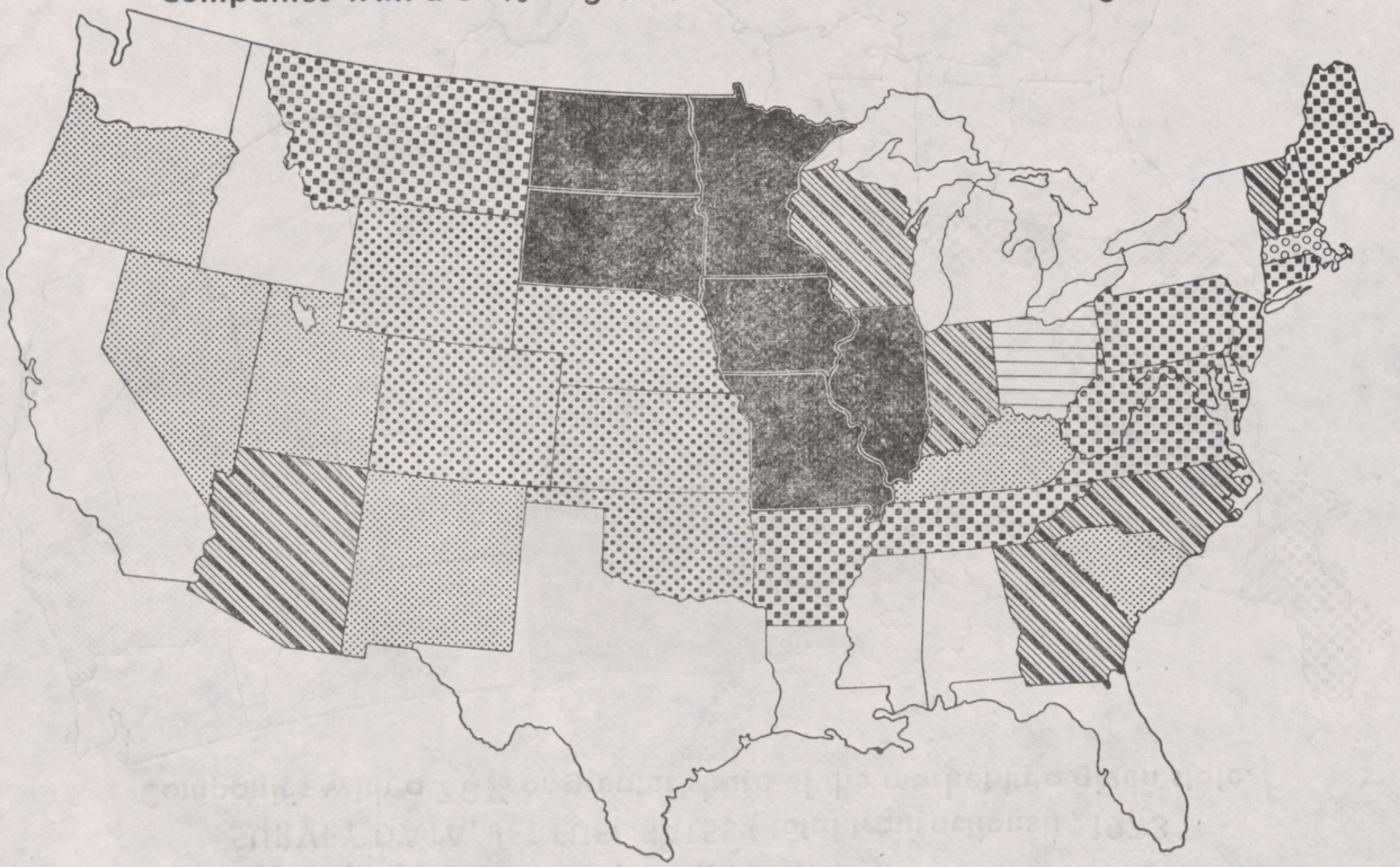
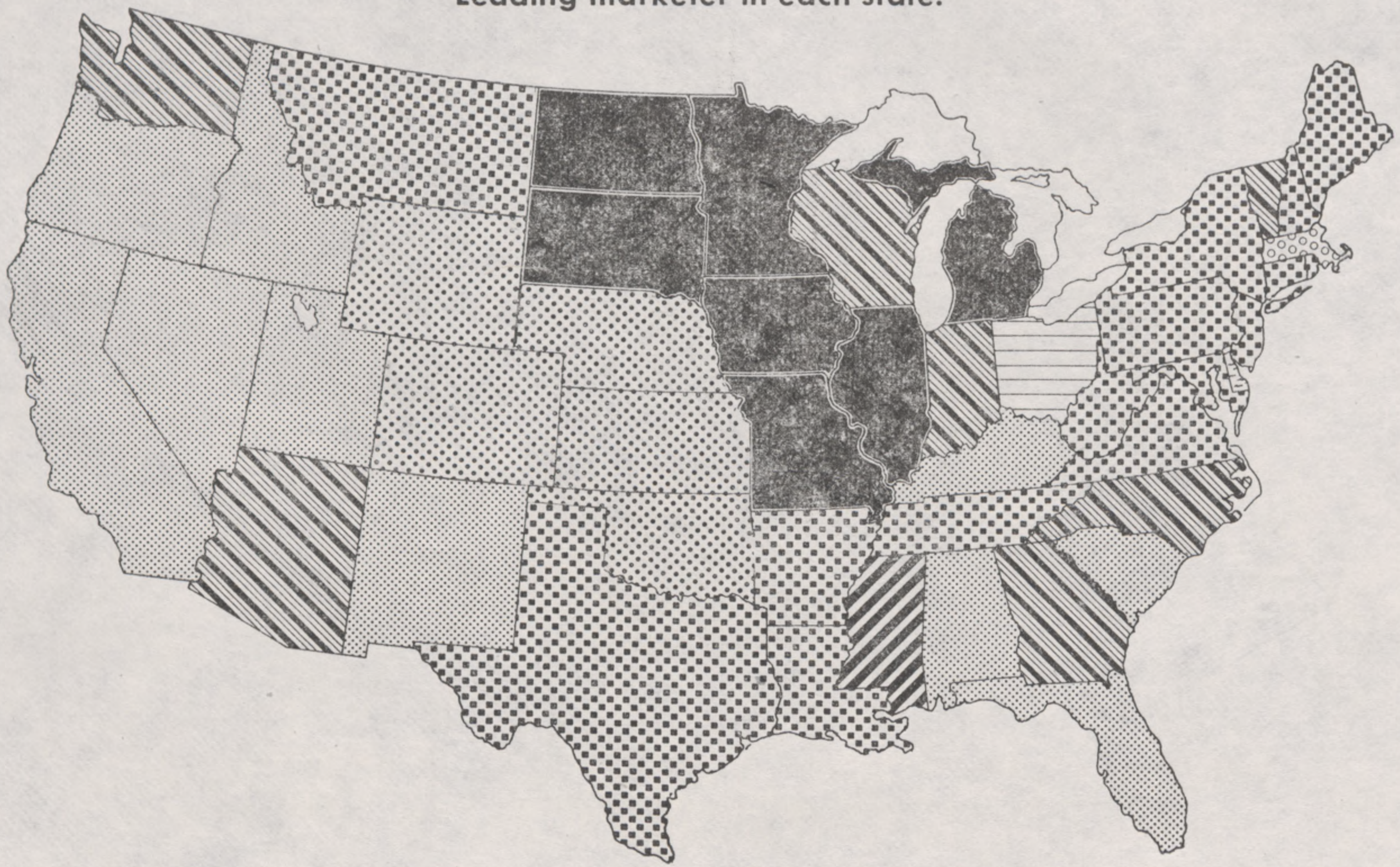


FIGURE 6J.
SURVEY DATA, JET FUEL SALES (total transactions) , 1973
Leading marketer in each state.



VII. Uranium and Coal

Within the context of overall U.S. energy consumption, the roles played by coal and uranium are in marked contrast. In 1900 coal supplied nearly all of primary energy (excluding wood), and supplied 78 percent in 1920. In 1973 coal supplied 18 percent of total energy consumption. Both Dupree and West and Hudson and Jorgenson forecast a doubling of U.S. coal use from 1973 to 2000, but with the percentage of primary energy being 16 percent.

Nuclear power in 1973 supplied only 1 percent of U.S. energy consumption but is widely believed to be the most important source of future energy growth. Table 7–A shows historical data on energy consumption, the engineering projection of Dupree and West, and the economic forecast of Hudson and Jorgenson.

In 1971 the House Subcommittee on Special Small Business Problems [1] reported that major oil companies accounted for 20 percent of domestic coal production and 30 percent of reserves, 25 percent of uranium milling capacity and over 50 percent of uranium reserves.

TABLE 7–A.—ENERGY CONSUMPTION: HISTORICAL AND SELECTED FORECASTS

Year	Total energy	Coal	Petroleum	Natural gas	Hydro power	Nuclear power
1920:						
Quadrillion Btu	19.8	15.4	2.8	0.8	0.8	0
Percent	100	78	14	4	4	0
1973: [1]						
Quadrillion Btu	75.6	13.5	34.7	23.6	2.9	0.9
Percent	100	18	46	31	4	1
2000, Hudson-Jorgenson:						
Quadrillion Btu	163.4	26.2	61.4	28.6	47.2	
Percent	100	16	38	18	30	
2000, Dupree-West:						
Quadrillion Btu	191.9	31.4	71.4	34.0	5.6	49.2
Percent	100	16	37	18	3	26

[1] 1973 consumption of coal was 561.2 million tons; petroleum, 6.30 billion barrels; natural gas, 22.85 trillion cubic feet; hydro power, 0.28 trillion kilowatthours; nuclear power, 0.08 trillion kilowatthours.

Sources: Survey of Current Business; Gas Facts; E. A. Hudson and D. W. Jorgenson, Tax Policy and Energy Conservation, January 1975 (also U.S. Energy Policy and Economic Growth, 1975–2000, Bell Journal of Economics and Management Science, autumn 1974); W. Dupree and R. West, United States Energy through 2000; Energy Policy Project, Exploring Energy Choices; Coal Facts.

[1] U.S. House of Representatives, Select Committee on Small Business, Concentration by Competing Raw Fuel Industries in the Energy Market and Its Impact on Small Business, Report, 92d Cong., 1st sess.

TABLE 7-B.—REPORTED COAL PRODUCTION AND RESERVES, 1973

Company	Reserves (million tons)	Production (million tons)
A. Survey response:		
Ashland	482	12.4
Belco	84	1.4
Cities Service	60	0
Continental	12,058	60.6
El Paso	4,954	0
Exxon	7,000	2.7
Getty	63	0
Gulf	979	8.1
Lone Star	2	0
McCulloch	124	0.4
Occidental	4,376	20.4
Panhandle	715	0
Shell	5,000	0
Standard/California	500	0
Standard/Ohio	868	11.5
Tenneco	851	0
Texaco	2,340	0
Union Texas	148	1.7
Total	40,104	119.2
B. Other sources:		
Amax (Standard/California)	4,900	16.7
Atlantic Richfield	1,500	----
Falcon	140	3.7
Kerr-McGee	1,000	----
Mapco	----	2.1
Sun	2,200	----
Zapata	265	1.0
Eastern Gas & Fuel	----	10.6
Houston Natural Gas	1,000	4.3
Total	10,005	38.4
Total, survey and other sources	51,109	157.6
Total, United States (identified reserves)	707,395	597.5
Percentage, oil companies	7.1	23.4
Percentage, oil and gas companies	7.2	26.4

Note: Reserves as reported here were defined as specific identified mineral deposits or geologically hypothetical resources. Production figures are presumably both bituminous and anthracite coal.

Sources: Other sources used in pt. B of the table include, Coal Facts; T. D. Duchesneau, Competition in the U.S. Energy Industry; National Economic Research Associates and Peabody Coal Co., Actual and Potential New Entrants into Domestic Coal Production; Peter Max, testimony before the Senate Judiciary Committee Subcommittee on Antitrust and Monopoly (June 17, 1975); and Federal Energy Administration, The Petroleum Industry, A Report on Corporate and Industry Structure and Ownership. National reserve data is for 1972; national production for 1972 was 602,500,000 tons.

Eighteen oil companies in the survey reported current coal reserves or production in 1973 as reported in Table 7–B. In 1973 these survey companies accounted for 20 percent of total coal production. Total coal production of oil and gas companies listed in both parts of the table accounted for 26.4 percent of annual production. This appears to reflect no significant change from 1971. However, other sources contradict this conclusion. The United Mine Workers Journal alleges that large oil and gas companies control 40 percent of coal production.[2] The Federal Energy Administration reports five oil or gas companies are active in the coal industry directly, and that 29 coal companies are subsidiaries of oil or gas companies.[3] Further, 7 of the 15 largest coal companies are subsidiaries of oil or gas companies.

[2] United Mine Workers Journal, Aug. 16–31, 1975, p. 4.
[3] See "other sources," Table 7–B.

There is some concern about the comparability and accuracy of the coal reserve data reported in the survey. It includes both identified and hypothetical reserves, and defines a reserve/production ratio of 336:1. However, national data define an identified and hypothetical reserve/production ratio of 5,350:1. Considering national data for identified bituminous and anthracite coal, the ratio is 1,174:1. If it is correct to assume that coal companies operated by petroleum companies maintain at least the same ratio of reserves to production as the coal industry as a whole, and that the national data are reasonably accurate, then the data on coal reserves as reported by petroleum companies within the survey must be viewed as inaccurate. Alternatively, both reserve/production ratios may be approximately correct and reflect different management practice.

The maximum nuclear fuel cycle in the civilian nuclear power industry consists of eight basic steps: mining, milling, gas conversion, enrichment, fabrication, power generation, reprocessing, and waste storage. The survey requested information from the petroleum companies with respect to uranium mining, reserves, milling, and fabrication. Eight companies reported activity in uranium mining and/or uranium reserves, and five companies reported uranium fuel fabrication.

Survey data on uranium milling capacity can be compared to total national milling capacity. Table 7–C presents data on uranium milling capacity according to oil company affiliation in 1973. The Bureau of Mines reported capacity at 30,550 tons of ore per day in 1973.[4] Seven companies in the survey reported ownership interest in mills, accounting for 40 percent of capacity as indicated in part A. Part B, based upon reported directorate affiliations in the survey, indicates that five companies in uranium milling share directors with oil companies, and these companies owned 36 percent of milling capacity. Twenty-nine percent of capacity is owned by companies with subsidiary oil production (part C). The remaining 4.7 percent of milling capacity was owned by groups of companies which have coal operations.

As a consequence, 95 percent of uranium milling capacity was owned by companies associated with oil production, and 100 percent of capacity was associated with oil or coal production.

Table 7–D shows data prepared by the Atomic Energy Commission for 1970. In the ensuing 3 years, oil companies added 7,850 tons per day of capacity, and companies with subsidiary oil production increased their share of national capacity from 49 percent to 69 percent.

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[4] U.S. Bureau of Mines, Division of Non-Ferrous Metals, personal communication with Duane Chapman, Sept. 23, 1975.

TABLE 7-C.—URANIUM MILLING CAPACITY AND AFFILIATION WITH OIL COMPANIES, 1973

	Gross capacity	Net capacity	Net, percent United States
A. Ownership reported in survey:			
Atlantic Richfield	(250)	(250)	
Continental	1,175	1,115	
Pioneer Natural Gas		635	
Exxon	2,000	2,000	
Kerr-McGee	7,000	7,000	
Getty	1,500	750	
Kerr-McGee		750	
Standard/Ohio	(1,100)	(550)	
Reserve Oil & Gas		(550)	
Total		12,250	40.1
B. Milling capacity owned by companies having management affiliation with oil companies:			
Union Carbide	2,300	2,300	
Anaconda	3,000	3,000	
Homestake Mining	3,500	1,050	
Cotter	450	450	
Western Nuclear	1,200	1,200	
Total		8,000	26.2
C. Milling capacity owned by companies with subsidiary oil production:			
Susquehenna-Western	2,000	2,000	
United Nuclear	3,500	2,450	
Utah International	2,400	2,400	
Atlas	1,500	1,500	
Dawn Mining	500	500	
Total		8,850	29.0
D. Milling capacity owned by companies with coal operations:			
Rio Tinto-Zinc	500	500	
American Nuclear	950	950	
Federal Resources			
Tennessee Valley Authority			
Total		1,450	4.7
Total, U.S. milling capacity, 1973		30,550	100

Notes to table 7-C: Each statement refers to circumstances in 1973 unless otherwise indicated. Pt. A—The Atlantic Richfield mill in Oregon was not operating in 1973 and is not reported by the Bureau of Mines. Exxon reported 2,800 tons per day capacity in the survey, but 2,000 tons are reported by the Bureau of Mines and in this table. Getty and Kerr-McGee reported that Getty was in partnership with its subsidiary, Skelly, and with Kerr-McGee at the Shirly Basin, Wyoming mill. Standard Oil of Ohio reported a mill under construction in partnership with Reserve Oil & Gas; this 1,100 tons per day mill is not included in the 1973 total. Pt. B—Directors of Louisiana Land & Exploration and of Commonwealth Oil Refining are directors of the Union Carbide Corp.; Union Carbide is a major user of petroleum and natural hydrocarbon feedstocks, operates natural gas pipelines, and may, according to its annual report, have oil or gas properties. 2 directors of Champlin Petroleum (owned by the Union Pacific Corp.) and 1 director of Texaco are directors of Anaconda. Homestake Mining owns part of the Grants, N. Mex. mill in partnership with United Nuclear which is in the oil, coal, and gas industries. The Cotter Corp. is wholly owned by Commonwealth Edison; 1 director of Standard Oil of Indiana is also a director of Commonwealth Edison. Western Nuclear, Inc. is wholly owned by the Phelps Dodge Corp.; directors of Monsanto (active in oil and gas production), Marathon Oil, and El Paso Natural Gas are also directors of Phelps Dodge. Pt. C—Susquehenna-Western, Inc. is a wholly owned subsidiary of the Susquehenna Corp. The Susquehenna Corp. is in turn a subsidiary of Studebaker-Worthington (38 percent ownership) which owns the STP Corp. and 52 percent of the Pasco Oil Co. United Nuclear is also in the oil, gas, and coal industries. Utah International Inc. owns the Ladd Petroleum Co. and is in the coal industry. The Atlas Corp. is also active in oil. The Dawn Mining Co. is 51 percent owned by Newmont Mining, which owns the Newmont Oil Co. Pt. D—Rio Tinto-Zinc, in coal mining, owns 51.2 percent of Rio Algom Mines. The American Nuclear Corp. is involved in a joint venture between the Federal Resources Corp. (owner of coal properties) and the Tennessee Valley Authority. The Authority, a major coal user, holds estimated reserves of 355,000,000 tons. Total active capacity declined slightly in 1973 and 1974, apparently because of less than expected growth in demand for nuclear fuel.

TABLE 7-D.—FOSSIL FUEL CORPORATIONS AND URANIUM RESERVES AND MILLING CAPACITY, 1970

	Reserves, tons U_3O_8 ($8 per lb [1])		Production capability, tons U_3O_8 per year	
	Amount	Percent	Amount	Percent
Oil companies	107,000	43	4,400	31
Oil as subordinate revenue source	17,000	7	2,500	18
Companies with natural gas or coal production	37,000	15	2,800	20
Total, oil, gas, or coal production	161,000	65	9,700	69
Total, uranium industry	246,000	100	14,000	100

[1] Recent price increases make this class of ore more valuable than at the time the $8 figure was used for planning purposes.

Source: Concentration by Competing Raw Fuel Industries in the Energy Market and Its Impact on Small Business, op. cit., p. 255.

VIII. Conclusion

In this summary of survey statistics we do not believe it is useful to address certain issues of national policy. We recognize that natural gas and oil price regulation, divestiture, nationalization, and other such issues are of importance. In this context, however, we wish to direct our attention to conclusions relating only to information availability as these conclusions arise from and are related to the survey.

A common theme to much of the discussion in the preceding sections is the desirability of a continuing information collection and dissemination system. Such a system should collect data on a uniform basis and public accessibility should be presumed in all respects. (However, the need for confidentiality or aggregation in certain areas may be a subject of future determination.)

Establishing an organization to manage such a system requires either the utilization of an existing organization or the creation of a new entity. The standards which should be met include: (1) A charter of public responsibility which places the organization in a desirable middle ground, that is, responsible neither to the executive branch nor the Congress on a sole basis, nor directed by the energy industry, nor dependent upon political or partisan support; (2) a staff competent in such areas as engineering, finance, and economics, etc. in the energy field; and (3) a data processing and publication capability.

It follows from these assumptions that industry organizations such as the American Petroleum Institute cannot assume this responsibility, although their cooperation is desirable and perhaps essential. Nor should the Federal Energy Administration be expected to fulfill responsibilities which create the potential for a major divergence of interest from that of the Executive. Nor are a series of ad hoc surveys capable of attaining the necessary competence on a continuing basis. Nor can the responsibilities be satisfactorily divided among various commissions and agencies because such division creates both gaps in coverage and the organizational politics of overspecialized data gathering.

The remaining kind of organization is that of the independent commission. We suggest that consideration be given to assigning these information responsibilities to the Federal Power Commission or to a new commission which would have these and other duties. The Commission's problems with respect to conflicts of interest and data management have been widely discussed. However, we believe that the remedies necessary for better performance already exist by means of (1) Senatorial approval of appointed commissioners, (2) budget review, and (3) corrective legislation.

The Federal Power Commission does meet the three criteria suggested above with respect to (1) a charter of public accountability, (2) a professionally competent staff, and (3) data processing and publication capability. It is one possible means.

Alternatively, a new energy commission might be established with responsibilities for data collection and dissemination related to petroleum, natural gas, electricity, coal, nuclear power, and other energy forms. Information responsibilities can logically be undertaken separately from regulatory duties (although the reverse is not so), and perhaps the question of information availability could be addressed apart from other matters.

To recapitulate the survey findings: It has collected data from individual petroleum companies with respect to mergers and acquisitions, directorate affiliations, nominal ownership of 1 percent or more of common stock, largest debt holders, subsidiary holdings, multiple affiliations with legal and accounting firms, and selected financial data; production, reserves, and joint ownership in petroleum and natural gas by geographic area; natural gas sales, refining output, ownership, and sales, and joint activities in ownership, production, and exchange; the marketing of each major refined product on a State basis, and the trade in finished products; and operations in coal and uranium.

The major findings in each area are as follows:

(1) Mergers and acquisitions since 1954, while significant in magnitude and number, have left essentially unchanged the group of 20 largest companies.

(2) Direct directorate affiliations between competing petroleum companies were infrequent. However, indirect affiliations (in the sense that bank A has employees serving on the boards of X and Y) exist in larger number. The three companies with the largest numbers of indirect affiliations were banks. Directorate affiliations with financial corporations are more common than with other kinds of economic activity, accounting for one-fourth of the directorate affiliations for both large and small oil companies.

(3) Ownership data is generally in a nominee form which effectively precludes the recording of actual or beneficial ownership.

(4) Sharing of debt holders among the 20 largest oil companies is high.

(5) Subsidiary data are generally inadequate to describe interactions. Relationships between different families of major companies cannot be determined with accuracy.

(6) Multiple affiliations by accounting firms are common, and virtually nonexistent with law firms.

(7) Reported financial data are inadequate to determine the effect of Federal tax subsidies on industry production and investment.

(8) Joint ownership of oil production and wells is general for large and small companies. Similarly, most reported oil and gas reserves are jointly owned. Large companies appear to be partners with most other large companies. Differences in reporting methods result in major discrepancies in reported well ownership between partners.

(9) State concentration in refinery ownership is significantly greater than national concentration. Survey response with respect to trade in refinery output was generally poor. For two major companies, somewhat less than one-half of their refinery output was sold or traded to other petroleum companies for resale. The absence of adequate data prohibits an accurate summary of markets for trading in refined products.

(10) Trading between petroleum companies in finished products is common. Concentration in final gasoline sales is significantly higher in the average State than for the Nation as a whole. Concentration according to quantity supplied differs from that of final sales because of intercompany trading, and is probably higher. Concentration is lowest in gasoline marketing, highest in jet fuel, and intermediate in residual oil. Concentration in distillate oil marketing appears to lie between that of gasoline and residual oil. The pattern of leading suppliers of gasoline and leading marketers in final sales on a state basis is similar to the pattern of marketing territories allocated to the antecedent Standard Oil Trust Operating Units in 1911. The measure of concentration commonly used (that of final sales of gasoline on a national basis) appears to define lesser concentration and cooperation than any other possible measure.

(11) Holdings by petroleum companies in coal production and reserves are significant, and 7 of the 15 leading coal companies are owned by companies in the oil industry.

(12) Ninety-five percent of uranium milling capacity is affiliated with companies in the oil industry, and the remaining 5 percent is owned by companies with coal properties.

In general, unreported, inaccurate, or nonuniform data, and errors in data processing, are biased in a statistical sense. That is, the defects in the survey data will in general obscure and understate the degree or nature of cooperative activities between companies.

Our interpretation of the reported data has led us to propose that future responsibility for the collection and publication of these kinds of information be placed in an independent commission as noted above.

APPENDIXES

Appendix A

Survey Questionnaire

Methodology

Letter to Questionnaire Recipients

U.S. SENATE,
Washington, D.C., May 17, 1974.

DEAR MR. ———:

During hearings recently concluded by the Special Subcommittee on Integrated Oil Operations considerable testimony was received to the effect that adequate information is not available upon which to make a competent judgment on the extent of competition or the lack thereof in various aspects of the energy industry.

In order to obtain relevant and adequate information for the Subcommittee's use and to insure that the record of this inquiry is complete the enclosed questionnaire has been devloped. I would appreciate your response to the questionnaire by July 20, 1974.

The Subcommittee recognizes the difficulty of devising a questionnaire which can be readily responded to by a number of companies. It is possible that some of the questions may not apply to your particular corporate operations. Should you have difficulties responding please contact Dr. John Wilson, consultant to the Subcommittee, at 202–393–4650 so the matter can be discussed. Furthermore, in the event that your records are such that responses to any of the questions cannot be given, please so indicate. You will note that answer sheets have been provided for each question. Should the answer to any question require additional space please duplicate the appropriate answer sheet for your use.

You should be advised that some of the analysis of the responses will be done under the auspices of a grant of the National Science Foundation which will provide, among other things, computer support services for the analysis of responses to the questionnaire. Additional analysis will be done by personnel from the General Accounting Office.

You may have already submitted some of the requested information to other agencies and bodies of the Federal government. If so, this will certainly facilitate your being able to respond to the questionnaire.

I would appreciate it if you would inform the Subcommittee of the individual in your organization whom you have made primarily responsible for preparation of your response.

Very truly yours,

FLOYD K. HASKELL,
Chairman, Special Subcommittee on Integrated Oil Operations.

SPECIAL SUBCOMMITTEE ON INTEGRATED OIL OPERATIONS QUESTIONNAIRE

A. General Corporate

1. List all mergers regardless of size, and all common stock or asset acquisitions or dispositions amounting to $25 million or more (where the market value of assets less liabilities was $25 million or more at the time of the transaction) in which your company was involved as either the acquiring firm or the disposing firm, since 1945. Please state:
   a. From whom acquired or to whom disposed.
   b. Date of agreement to acquire or dispose.
   c. Description of property acquired or disposed.
   d. Market value of property acquired or disposed.
   e. Consideration (whether stock or otherwise) given or received for property acquired or disposed.
2. List the following for all individuals who have served as a director of your company since 1964:
   a. Name.
   b. Business address.
   c. Occupation and title.
   d. Other corporate and institutional directorates held by individuals since 1964.
   e. Dates of service on each board.
3. List the names of all stockholders who, as of January 1, 1974, owned more than 1 percent of your common stock. For each of these owners, state:
   a. Business address.
   b. Percentage ownership of outstanding common stock owned.
   c. Where known, beneficial interest if different than record ownership.
   d. Where known, if nominee, who nominee represents.
4. List the names of the 10 largest holders of your company's debt securities (bond, debenture, financial lease, or note having an original term of more than 5 years) as of January 1, 1974, stating for each:
   a. Business address.
   b. Type and principal amount of debt held (or capitalized value of financial leases). Include in description of type of debt any terms of convertibility, or subordination, or any special security such as back-up guarantees.
   c. Where known, beneficial interest if different than record ownership.
   d. Where known, if nominee, who nominee represents.
5. List as of January 1, 1974:
   a. All corporations in which you own 1 percent or more of the outstanding common stock, indicating the percentage of outstanding common shares owned.
   b. All joint ventures, partnerships or other unincorporated business entities in which you have an ownership interest of 1 percent or more.

c. Your percentage ownership or share and the percentage ownership or share of each other company in each entry under (b) above.
d. Business addresses of each entry in (a) and (b) above.
e. Date of acquisition or formation.

B. Production and Reserves

6. List for each U.S. Petroleum Administration for Defense district (PAD)[1] and for each foreign country for each year from 1964 to 1973, inclusive:

a. Gross number of producing oil and gas wel's.
b. Gross number of producing oil and gas wells jointly owned.
c. Where jointly owned, number of wells jointly owned with each other petroleum company.
d. Gross amount of oil production and gross amount of natural gas production.
e. Net amount of oil and gas production owned by you.
f. Percentage of gross oil and gas production jointly owned with each other petroleum company.

7. List as of January 1, 1974, for each United States PAD district and for each foreign country your company's:

a. Gross number of producing and nonproducing oil and gas leases.
b. Gross acreage of producing and nonproducing oil and gas leases.
c. Gross number of jointly owned producing and nonproducing oil and gas leases.
d. Gross acreage of jointly owned producing and nonproducing oil and gas leases.
e. Net acreage of producing and nonproducing oil and gas leases.
f. Percentage of your gross producing and nonproducing oil and gas acreage owned jointly with each other petroleum company.

8. List as of January 1, 1974, for each United States PAD district and for each foreign country, your company's:

a. Gross oil and gas reserves.
b. Your net oil and gas reserves.
c. The percentage of your gross oil and gas reserves held jointly with each other petroleum company.

(In addition to oil and gas reserves, if your company owns oil shale or oil sand reserves, please make a similar listing for each of these resources.)

9. List for each United States PAD district and for each foreign country, for each year from 1964 to 1973, inclusive, the number of assignments made by you to third parties stating:

a. Number of assignments.
b. Net acreage assigned.
c. Third parties to whom assignments were made and the number of assignments and acreage assigned to each.

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[1] Offshore reserve, well, drilling, lease, and production data, et cetera, are to be included in the applicable PAD district data; for example, offshore Texas and Louisiana producing wells are to be listed under PAD 3 and offshore California data are to be listed under PAD 5.

10. List for each United States PAD district and for each foreign country for each year from 1964 to 1973, inclusive, leases obtained by you as a third party, stating:
    a. Number of assignments obtained.
    b. Net acreage obtained.
    c. Gross acreage obtained.
    d. Second parties from whom assignments were obtained, and the number of assignments and acreage obtained from each.
    e. Number of leases obtained by you.
    f. Indicate whether leases in (e) above were producing or non-producing.
11. List for each United States PAD district and for each foreign country for each year from 1964 to 1973, inclusive:
    a. The total number of instances in which you guaranteed bottom hole or dry hole money in excess of $1 million.
    b. Other petroleum companies to whom you made guarantees and the number of guarantees and total dollar amount made to each.
    c. The total number of instances in which you were guaranteed bottom hole or dry hole money in excess of $1 milion.
    d. Other petroleum companies by whom these guarlantees were made and the number of guarantees and dollar amount from each.
12. List for each United States PAD district and for each foreign country for each year from 1964 to 1973 inclusive:
    a. The total number of exploratory and developmental wells drilled on acreage owned or leased by you.
    b. The number of exploratory and developmental wells drilled with partners or joint venturers (or through any other mutual financial arrangement with another company in which drilling was done on acreage owned or leased by you).
    c. List other petroleum companies with whom joint drilling efforts were undertaken and the number of wells drilled with each other petroleum company.
    d. Total number of feet drilled on acreage owned or leased by you.
13. List for each United States PAD district and for each foreign country for each year from 1964 to 1973, inclusive:
    a. Your total natural gas sales (include gas sold for others) broken down according to:
        (1) interstate natural gas sales and
        (2) Intrastate natural gas sales made to each other petroleum company
        (3) in (1) and (2) above list to whom sold.
    b. Amount of natural gas produced by you that you then consumed.
    c. Your total consumption of natural gas.
    d. Percentage of your total natural gas consumption purchased in intrastate commerce.
14. List as of January 1, 1974:
    a. All natural gas processing plants in which you owned an interest.
    b. Capacity of each plant.

c. Location of each plant.
d. Where a plant is jointly owned, and percentage ownership held by each party.
e. Operator of each plant.

15. List, as of January 1, 1974:
a. All natural gas gathering systems in which you owned an interest.
b. Capacity of each gathering system at the exit terminal of the system.
c. Location of each gathering system.
d. Percentage ownership for each party in each gathering system owned jointly with others by you.
e. Operator of each gathering system in which you owned an interest.

C. Refineries

16. List for each State and for each foreign country for each year from 1964 to 1973, inclusive, each refinery owned by you stating:
a. Location.
b. Capacity.
c. Average annual daily output by fuel product.
d. If owned jointly: (1) list joint owners and the percentage share held by each, and (2) list production by product for each joint owner in each year.

17. For each oil refinery listed in answer to question No. 16, list for each year the:
a. Percentage and quantity of each product marketed by you.
b. Percentage and quantity of each product sold to other marketers.
c. Percentage and quantity of each product exchanged by you with each other petroleum company.

18. For each oil refinery listed in answer to question No. 16, list for each year the:
a. Total consumption of feedstock.
b. Percentage of total feedstock consumed by you which was produced by you.
c. Percentage of total feedstock consumed by you under agreements to process oil for others.
d. Amount of feedstock consumed by others under agreements to process oil for you.

D. Marketing

19. List for each State and for each foreign country for each year from 1964 to 1973, inclusive, your sales volumes of:
a. Gasoline.
b. No. 2 fuel oil.
c. Residual fuel oil.
d. Jet fuel.
e. Diesel fuel.

For a., b., c., d., and e., above, list the percentage sold:
(1) Directly through your own tank wagon sales—
(a) to your own company owned or leased branded retail dealers,

(b) to branded retail dealers who operate under a product sales agreement with you;
(2) directly through your own tank wagon sales to unbranded retailers;
(3) through your independent branded wholesale jobbers and distributors;
(4) through unbranded jobbers and distributors; or
(5) direct sales (such as those to government bodies).

20. List the following for each State and for each foreign country for each year from 1964 to 1973, inclusive:
a. Percentage of each of your branded fuel products marketed by you which was produced in your own refineries.
b. Percentage of each of your branded fuel products marketed by you which was purchased from each other petroleum company.
c. Percentage of each of your branded fuel products marketed by you which was realized from exchanges with each other petroleum company.

E. Transportation Systems

21. List as of January 1, 1974:
a. Each pipeline in which you had an equity interest.
b. Indicate whether each is a crude oil pipeline, a product pipeline or a natural gas pipeline.
c. Percentage interest owned by you.
d. Percentage interest owned by each other petroleum company.
e. Book value of assets, net of depreciation, for each pipeline.
f. Long term debt for each pipeline (original term of 5 years or longer).
g. Total capacity and average throughput for each pipeline.
h. List for each pipeline listed in (a) above, debt guarantees by your company and by each other petroleum company.

22. List as of January 1, 1974, for each pipeline listed in 21(a) above:
a. The daily quantity of oil which your company and each other petroleum company have agreed to tender for shipment to the pipeline or pay charges as if such tenders had been made (for example, throughput agreements).
b. Actual throughput by you annually from 1964 to 1973, inclusive.
c. Actual throughput for each percentage owner annually from 1964 to 1973, inclusive.
d. Actual throughput by those other than percentage owners annually from 1964 to 1973, inclusive.
e. Total throughput for each year from 1964 to 1973, inclusive.

23. List for each pipeline listed in 21(a) above:
a. Whether each is a fungible products system, and
b. Whether shipments are segregated.

24. a. Please provide a map of each pipeline system listed in 21(a) above. This map should include the designation of laterals and their ownership and capacity.

b. Have you ever been effectively denied access to any common carrier pipeline? If yes, indicate time, place and circumstances.

25. List as of January 1, 1974:
   a. Number of ocean tankers and tanker capacity owned by you.
   b. Number of ocean tankers and tanker capacity leased by you to each other company.
   c. Number of ocean tankers and tanker capacity leased by you from each other company.
   d. Amount of your own crude oil and each of your other waterborne petroleum products carried in tankers owned by you or in tankers chartered by you for a term of 3 years or longer for each year from 1968 to 1973.
   e. Amount of crude oil and each other waterborne product owned by each other company, carried in tankers owned by you or in tankers chartered by you for a term of 3 years or longer for each year from 1968 to 1973.
   f. Amount of your own crude oil and each of your other waterborne petroleum products carried in tankers owned, leased, or chartered by each other company, for each year from 1968 to 1973, inclusive.
   g. Total amount of your crude oil and other waterborne petroleum products carried in tankers for each year from 1968 to 1973, inclusive.

26. List for each crude oil or petroleum product storage facility owned or leased in whole or in part by you as of January 1, 1974:
   a. Whether facility is wholly owned or jointly owned.
   b. If facility is jointly owned, percentage ownership of each joint owner.
   c. Type of commodity for which the facility is used; where more than one commodity is involved, state the approximate percentage share of each.
   d. Initial date of use.
   e. Location.
   f. Capacity.
   g. Mode of delivery to facility; where more than one type of delivery is involved, state the approximate share of each.
   h. Percentage use of each facility by companies not having an interest in the storage facility, for each year from 1969 to 1973, inclusive.
   i. Percentage use of each facility by each company having an interest in the storage facility, for each year from 1969 to 1973, inclusive.

F. Foreign Operations

27. List as of January 1, 1974, all foreign companies or enterprises in which you have an interest. For each listing state:
   a. Name of company or enterprise.
   b. Country of operation(s).
   c. Type of operation(s); (for example, petroleum production, refining, marketing, uranium exploration, etc.).
   d. 1973 gross revenue (in dollars).

e. Net worth as carried on your books as of January 1, 1974.
f. Percentage of equity owned by you.
g. Percentage of equity owned by each other petroleum company.

G. Uranium and Coal

28. Are you engaged in the uranium mining industry? If yes, list as of January 1, 1974, for each such operation:
a. Total gross reserves in which you have an interest, broken down according to: (1) Recoverable (2) Paramarginal, and (3) Submarginal.
b. Net reserves owned by you, broken down as in (a) above.
c. Ownership, if any, of each other company in your gross reserves, broken down as in (a) above.
d. Your total gross production for each year from 1969 to 1973, inclusive, broken down according to: (1) Your net production (2) The ownership share, if any, of each other company in your gross production.

29. Are you engaged in the uranium milling industry? If yes, list as of January 1, 1974 for each such operation:
a. Amount of U_3O_8 produced in each year from 1969 to 1973, inclusive.
b. Total milling capacity in which you have an ownership interest.
c. If the facilities related to (b) above are not wholly owned by you, list your percentage ownership share and the percentage ownership share of each other owner.

30. Are you engaged in the uranium fabricating industry? If yes, list as of January 1, 1974, for each such operation:
a. Amount of enriched uranium fabricated by you in each year from 1969 to 1973, inclusive.
b. Total fabricating capacity in which you have an ownership interest.
c. If the facilities related to (b) above are not wholly owned by you, list your percentage ownership share and the percentage ownership share of each other owner.

31. Are you engaged in the coal mining industry? If yes, list as of January 1, 1974, for each such operation:
a. Total gross reserves in which you have an interest, broken down according to: (1) Estimated identified resources, and (2) Hypothetical resources.
b. Net reserves owned by you, broken down as in (a) above.
c. Ownership, if any, of each other company in your gross reserves, broken down as in (a) above.
d. Your total gross production for each year from 1969 to 1973, inclusive, broken down according to: (1) Your net production (2) The ownership share, if any, of each other company in your gross production.
e. Have you spent any funds during the past five years for research and development of coal or for locating potential coal properties for possible lease or purchase? If yes, specify when, for what purpose, and what amount.

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H. Financial

32. If you have issued securities since 1964, list:
   a. Date(s) of issue.
   b. Amount of each issue (for example, principal amount of each debt issuance or capitalized value of financial leases).
   c. Type of each issue, including any terms of subordination or convertibility, or special security such as backup guarantees.
   d. Names of underwriters or lead investment bankers for each issue.

33. List the accounting firm(s) retained by you as auditors and the law firm(s) which have acted as your general corporate counsel since 1964.

34. List for each year from 1964 to 1973, inclusive, for each enterprise area below, your company's:
   a. Net investment as it appears on your books.
   b. Gross investment as it appears on your books.
   c. Gross revenues.
   d. Operating costs.
   e. Pre-tax profits for:
      (1) Domestic oil and gas exploration, development, and production.
      (2) Foreign oil and gas exploration, development, and production.
      (3) Domestic crude petroleum gathering and transportation.
      (4) Foreign crude petroleum gathering and transportation.
      (5) Domestic refined product transportation.
      (6) Foreign refined product transportation.
      (7) Domestic natural gas gathering and transportation.
      (8) Foreign natural gas gathering and transportation.
      (9) Domestic petroleum refining.
      (10) Foreign petroleum refining.
      (11) Domestic refined product marketing.
      (12) Foreign refined product marketing.

35. Please supply a copy of your internal accounting manual and related data showing profit centers, accounting procedures and the like.

36. Please supply a copy of your company's annual report to stockholders for each of the last 5 years.

Special Subcommittee on Integrated Oil Operations Questionnaire

definitions*

1. Acquisition: Obtaining of property of another business enterprise in exchange for cash, securities or other consideration.

2. Affiliate: Any company which is directly or indirectly subject to control by your company, or which controls your company, or which is subject to common control with your company; this shall include all companies in which you own 20% or more of the proprietary interest or which own 20% or more of the proprietary interest in your company or where 20% or more of the proprietary interest is subject to common ownership. If no other entity owns 20% or more, this shall include all

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*Where used in the accompanying questionnaire, the following words refer to the following subjects.

companies in which you own 10% or more of the proprietary interest or which own 10% or more of the proprietary interest in your company or where 10% or more of the proprietary interest is subject to common ownership.

3. Assignment: The act of transfering interests to a third party, either in full or with a reservation.

4. Beneficial Interest: The right to the profit, benefit or advantage as distinct from legal ownership.

5. Bottom Hole Guarantee: A contribution toward the cost of a well payable regardless of whether the well proves to be productive or a dry hole. The contribution does not confer an ownership interest in the well.

6. Company: Your business entity, including all corporations, partnerships, agencies, ventures and other affiliates. Wherever "company" is included in the questionnaire, please respond in terms which include your affiliates' holdings.

7. Control: The actual or legal power or substantial influence over another person, whether direct or indirect. Control may arise through direct or indirect ownership of proprietary interests (such as capital stock), interlocking directorates or officers, contractual relations, agency agreements, consulting agreements, or leasing arrangements.

8. Development Well: Those wells which are drilled within the proven area of an oil and gas reservoir to the depth of the stratigraphic horizon known to be productive.

9. Disposition: The transfer of property from your corporation in return for value.

10. Dry Hole Guarantee: A contribution toward the cost of a well that is payable only if the well proves to be a dry hole. The contribution does not confer an ownership interest in the well.

11. Exchange: Any agreement for the purchase, receipt, sale or delivery of crude oil or unfinished oils which provides for consideration other than money, including the execution or performance of a reciprocal agreement for sale, delivery, purchase or receipt of other crude oil, unfinished oils, or petroleum products. This includes, but is not limited to "3-cut exchanges," "value exchanges," "posted price exchanges," and "phantom exchanges."

12. Exploratory Well: Those wells drilled to find limits of an oil or gas-bearing formation that is partly developed; those drilled in search of a new productive formation in an area that is already productive; and those drilled in an area where neither oil nor natural gas has ever been found.

13. Feedstock: Liquid and gaseous hydrocarbons used as raw materials for their chemical properties in creating an end product.

14. Fungible Products System: Pipeline systems in which shipments of like substances are co-mingled, and shippers take delivery from any portion of the like substance shipped.

15. Gas (Natural Gas): A mixture of hydrocarbon compounds and small quantities of various non-hydrocarbons existing in the gaseous phase or in solution with oil in natural underground reservoirs at reservoir conditions. For purposes of this questionnaire, natural gas shall include (1) non-associated natural gas not in contact with crude oil in the reservoir and (2) the combined volume of associated-dissolved

gas which occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with the crude oil (dissolved). Volumes of natural gas production, reserves and productive capacity shall be expressed in thousand cubic feet at 14.73 pounds per square inch absolute pressure and 60° F. temperature.

16. Gas Processing Plant: A facility which recovers ethane, propane, butane, and/or natural gas products from mixtures of natural gas or natural gas liquids.

17. Gross Acreage: The undivided total acres for all mineral leases in which your company owns an interest. This shall include all interests owned by all parties holding interests in this acreage.

18. Gross Assets: The total value of assets recorded on the audited books of your corporation without reduction for depreciation, depletion or amortization.

19. Gross Investment: Present total investment in an enterprise area.

20. Gross Non-Producing Leases: The undivided total number of non-producing oil and gas leases in which your company owns an interest.

21. Gross Producing Leases: The undivided total number of producing oil and gas leases in which your company holds an ownership interest.

22. Gross Production: The undivided total production from all reserves in which your company owns an interest. This shall include all working interest volumes, overriding royalty interest volumes, lessors' royalty interest volumes, or other mineral interest volumes owned by all parties.

23. Gross Reserves: The undivided total reserves from all reservoirs or mineral deposits in which your company owns an interest. This shall include all working interest volumes, overriding royalty interest volumes, lessors' royalty interest volumes or other mineral interest volumes owned by all parties.

24. Gross Wells: The total number of wells in which your company owns an interest.

25. Jointly Owned Wells: Oil and/or gas wells in which interests are shared with others.

26. Joint Venture: Any business enterprise, incorporated or unincorporated, which is undertaken by two or more persons or corporations. Joint ventures include, but are not limited to, tenancies-in-common, associations and partnerships.

27. Market Value: The economic consideration that would be given by a willing buyer to a willing seller, trading at arms' length.

28. Merger: The union of two or more corporations into a single new or surviving corporation.

29. Natural Gas Gathering System: A pipeline system that delivers natural gas from a number of wells to either a processing plant or a main transmission pipeline.

30. Net Acreage: The share of gross acreage attributable to your ownership interests.

31. Net Investment: Present total investment in an enterprise area net of depreciation, amortization, and depletion.

When responding to questions pertaining to gross and net investment please note the Subcommittee's intention: Where so carried use

the sums for investment, revenues, operating costs, and pre-tax profits appearing on the audited books of your company. In the event that investment is not separately identifiable for an enterprise area, allocate investment to this area in accordance with the latest cost of operations study done by or for your company for the area, or in the absence of such a study allocate investment in proportion to your company's practices for cost allocations between areas.

32. Net Production: Your company's owned interest volumes, plus its proportionate share of any overriding royalty interest volumes, lessors' royalty interest volumes or other mineral interest volumes from gross production in which your company owns an interest.

33. Net Reserves: Those mineral reserves representing your company's working interests in gross reserves, plus your proportionate share of any overriding royalty interests and lessors' royalty interests in gross reserves in which your company possesses owned interests.

34. Nominee: A person designated to act for another as a representative in a limited sense.

35. Non-Producing Lease: Any mineral lease not classified as a "producing lease" as that term is defined (36) below.

36. Oil (Crude Oil): A mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. For purposes of this questionnaire, volumes reported as crude oil shall include (1) liquids technically defined as crude oil (2) small amounts of hydrocarbons that exist in the gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and (3) small amounts of non-hydrocarbons produced with oil. All data reported pertaining to crude oil production, reserves and productive capacity shall be reported as liquid equivalents at the surface (excluding basic sediment and water) measured in terms of stock tank barrels of 42 U.S. gallons at atmospheric pressure, and corrected to 60° F.

37. Partnership: Any "syndicate," group, pool, joint venture or other unincorporated organization through or by means of which any business, financial operation, or venture is carried on, and which is not within the meaning of a corporation or a trust or estate.

38. Petroleum Company: See list accompanying these definitions.

39. Person: Shall mean any individual, corporation, partnership, firm, association or other business or legal entity.

40. Producing Lease: Any mineral lease from which production of oil or gas is taking place or which contains oil or gas wells which are temporarily shut-in.

41. Refinery: A plant for the processing of crude or unfinished oils to produce other or additional finished or unfinished oils.

42. Reserves:

a. Petroleum (Crude Oil) and Natural Gas:

Demonstrated: includes both measured reserves (material for which estimates of the quality and quantity have been computed, within a margin of error of less than 20%, from analyses and measurements from closely spaced and geologically well known sample sites) and indicated reserves (material for which estimates of the quality and quantity have been computed partly from sample analyses and measurements and partly from reasonable geologic projections.

b. Uranium:
Recoverable Resources: Those that can be extracted profitably under 1974 economic conditions.
Paramarginal Resources: Those that might be extracted profitably with a 50% to five-fold increase in the price of U_3O_8.
Submarginal Resources: Those that require more than a five-fold increase in price.

c. Coal:
Identified Resources: Specific, identified mineral deposits that may or may not be evaluated as to extent and grade, and whose contained minerals may or may not be profitably recoverable with existing technology and economic conditions.
Hypothetical Resources: Undiscovered mineral deposits, whether of recoverable or subeconomic grade, that are geologically predictable as existing in a known district.

43. Residual Fuel Oil: Any of the following: (1) Number 4, Number 5, and Number 6 fuel oils; (2) Bunker C oil, and (3) Navy Special Fuel Oil.

44. Second Party: Lessee(s) in oil and gas leaseholds.

45. Segregated Shipments: Pipeline shipments which are not commingled and which are transported and delivered as discrete batches.

46. Storage Facility: A stationary facility for the bulk storage of crude petroleum or petroleum products.

47. Third Party: The recipient of mineral interests as a result of assignments of acreage obtained from lessee(s) in oil and gas leaseholds.

48. Wholesale Jobber: A person who purchases or otherwise receives a petroleum product and transfers it to other persons without substantially changing its form.

49. "You" and "Your": Your company.

Methodology

There are four major phases in preparing the data for computer analysis. (1) The companies completed the answer sheets. These were mailed to the Special Subcommittee on Integrated Oil Operations, and photocopies sent to Cornell University. (2) The information was "coded": rewritten in a predetermined format on special paper. (3) The coded information was keypunched onto cards. (4) The cards were listed and checked against the original responses from the companies.

There are approximately three million data entries on 200,000 cards. The major sources of error in processing the responses have been with respect to legibility, units of measurement, and ambiguity in the questions and/or responses. In each question interpretive decisions were necessary to place the reported data from the various companies in a common format. Errors arising in processing are transposed digits, misplaced decimal points, and duplicated, omitted, and misplaced entries.

We shall estimate the error in steps 1, 2, and 3 as 1 percent in each step. Step 4 verifies and corrects steps 2 and 3 but obviously not step 1. Step 4 may correct 50 percent of the error in steps 2 and 3. Therefore the accuracy of the processed survey data with respect to the original data copied by the companies onto the answer sheet may be 98 percent.

NOTE.—For purposes of this questionnaire, reserves should be reported regardless of size, availability of market, ultimate disposition or use.

Appendix B

Description of Companies in Survey

DESCRIPTION OF THE PETROLEUM FIRMS SURVEYED

This list of company descriptions is meant to briefly identify the firms included in the survey. The following terms are used to denote the major characteristics of each firm:

(1) "Major"—the firm is fully integrated and is among the top 20 firms by sales for 1974.

(2) "Vertically integrated"—the firm operates at each level of production, i.e., production, transportation, refining and marketing, but was not among the top 20 firms by sales for 1974.

(3) "Independent"—the firm is not owned or controlled by any other firm or firms and has operations at one or more (but not all) levels of production.

(4) "Subsidiary"—the firm is owned by another firm or firms.

(5) "Foreign"—the firm operates in foreign countries.

(6) "Coal, uranium or geothermal"—the firm has coal, uranium or geothermal operations.

(7) "Names"—the major firm and/or brand names associated with each firm.

*Petroleum firm and description**

*Amerada Hess Corporation—major; foreign; names: Amerada, Hess.

*American Petrofina, Inc.—vertically integrated; foreign; names: Petrofina, Fina.

*APCO Oil Corporation—vertically integrated; foreign; name: APCO.

*Ashland Oil, Inc.—major; foreign; coal; names: Ashland.

*Atlantic Richfield Company—major; foreign; coal; names: Atlantic, Richfield, Arco, Sinclair.

*Beacon Oil Company—independent refiner and distributor with mine producing interests.

*Belco Petroleum Company—independent involved in production and transportation; foreign; coal.

*Burmah Oil Development, Inc.—100 percent owned by Burmah Oil, Co., Ltd. (Scotland); involved in exploration and development.

Buttes Gas and Oil Company—independent producer; foreign.

Caribou Four Corners, Inc.—independent refiner.

*Champlin Petroleum Company—100 percent owned by the Union Pacific Corporation; involved in refining, marketing, production and transportation.

Charter International Oil Company—100 percent owned by the Charter Company; involved in petroleum refining and marketing.

Charter Oil Company—100 percent owned by the Charter Company; involved in production, transportation, marketing and refining.

*Cities Service Company—major; foreign; names: Cities Service, Citco.

*Clark Oil and Refining Corporation—Vertically integrated; foreign.

*Clinton Oil Company—independent producer.

Coastal States Gas Producing Company—100 percent owned by Coastal States Gas Corporation, involved in oil and gas production and transportation.

DESCRIPTION OF THE PETROLEUM FIRMS SURVEYED

Petroleum firm and description—Continued*

*Commonwealth Oil Refining Company—independent involved in refining and marketing; foreign; names: Commonwealth, Corco.

*Continental Oil Company—major; foreign; coal and uranium; names: Continental, Conoco.

*Crown Central Petroleum Company—vertically integrated; foreign; names: Crown Central, Crown, Sunset, Thriftway.

*Delhi International Oil Corporation—independent producer.

Derby Refining Company—100 percent owned by Colorado Interstate Company which is 100 percent owned by Coasal States Gas Corporation; pipeline.

*Diamond Shamrock Oil and Gas Company—100 percent owned by Diamond Shamrock Corporation; vertically integrated; parent has foreign operations.

*El Paso Natural Gas Company—99.9 percent owned by the El Paso Company; involved in the production, transmission, and sale of natural gas; both subsidiary and parent have foreign operations; parent owns coal company.

*Exchange Oil and Gas Corporation—independent producer.

*Exxon Corporation—name changed from Standard Oil of New Jersey on November 1, 1972; major; foreign; coal; uranium; names: Exxon, Esso, Humble.

Farmers Union Central Exchange, Inc.—independent refiner.

*Farmland Industries, Inc.—independent involved in production, transportation, refining; foreign.

*Felmont Oil Corporation—independent producer.

*Fletcher Oil and Refining Company—independent involved in refining and marketing.

*Forest Oil Corporation—independent producer.

Gasland—independent marketer.

*General American Oil Company of Texas—independent producer.

*General Crude Oil Company—independent producer.

*Getty Oil Company—major; foreign; uranium; names: Getty, Skelly.

Golden Eagle Refinery Company—independent marketer.

*Gulf Oil Corporation—major; foreign; uranium and coal; name: Gulf.

*Hamilton Brothers, Inc.—independent producer.

*Hunt Oil Company—vertically integrated; foreign.

*Husky Oil Limited—100 percent owned by Husky Oil Co. of Delaware which is a subsidiary of Husky Oil Co., Ltd.; vertically integrated; foreign.

*Kerr-McGee Corporation—vertically integrated; foreign; coal and uranium.

Kewanee Oil Company—independent involved in oil and gas exploration and transportation; foreign; coal.

Koch Industries, Inc.—vertically integrated; foreign.

La Gloria Oil and Gas Company—subsidiary of Texas Eastern Transmission Corp; vertically integrated.

*Lion Oil Company—100 percent owned by the Oil Shale Corporation; involved in marketing and refining.

Lone Star Gas Company—independent involved in production, transportation and marketing of natural gas; and production or oil; foreign.

*Louisiana Land and Exploration Company—independent producer; foreign.

M and A Oil Company—wholesale distributor.

*McCulloch Oil Corporation—independent producer.

MacMillan Ring Free Oil Company, Inc.—subsidiary of Shaheen Natural Resources Co., involved in refining and marketing.

Mapco, Inc.—independent pipeline.

*Marathon Oil Company—major; foreign.

Martin Oil Service, Inc.—independent marketer.

*Mesa Petroleum Company—independent involved in oil and gas exploration and development; foreign.

*Mobil Oil Corporation—major; foreign.

Mohawk Petroleum Corporation, Inc.—subsidiary of the Reserve Oil and Gas Company; involved in marketing.

*Monsanto Company—involved (through its subsidiary Monsanto Polymers and Petrochemicals Co.) in exploration and production; foreign.

*Murphy Oil Corporation—vertically integrated; foreign.

*National Cooperative Refinery Association—vertically integrated.

Northwestern Refining Company—independent marketer.

*Occidental Petroleum Corporation—major; foreign; coal, oil shale, and geothermal.

DESCRIPTION OF THE PETROLEUM FIRMS SURVEYED

Petroleum firm and description—Continued*

Oil Shale Corporation (TOSCO)—independent involved in marketing, refining, transportation, oil shale; foreign.

*Panhandle Eastern Pipe Line Company—independent natural gas producer and pipeline.

Pauley Petroleum Inc.—vertically integrated independent.

*Pennzoil Company—vertically integrated; foreign; owns Lion Oil Co.

Petroleum Marketing Company—independent marketer.

*Phillips Petroleum Company—major; foreign; geothermal.

*Powerine Oil Company—subsidiary of Rothchild Oil Co.; vertically integrated.

*Rock Island Refinery Corporation—independent involved in exploration and marketing.

*Shell Oil Company—major; foreign; coal and geothermal.

*Southland Oil Company—independent marketer.

*Southwestern Oil and Refining Company—independent marketer.

*Standard Oil Company of California—major; foreign; names: SOCAL, Caltex, Chevron.

*Standard Oil Company of Indiana—major; foreign; name: Amoco.

*Standard Oil Company of Ohio—major; foreign; coal and uranium; names: SOHIO, British Petroleum.

*Sun Oil Company—major; foreign; coal and geothermal; names: Sun, Sunray DX, DX, Sunoco.

Superior Oil Company—independent producer; foreign.

*Tenneco, Inc.—major; foreign; names: Q–S, Tenneco.

*Tesoro Petroleum Corporation—vertically integrated; foreign; coal.

*Texaco, Inc.—major; foreign; names: Texaco, Caltex.

*Texas City Refining, Inc.—a subsidiary of Agway, Inc. and Southern Cooperative, Inc., involved in transportation.

*Texas Oil and Gas Corporation—independent producer.

Texas Pacific Oil Company, Inc.—independent producer.

Time Oil Company—affiliate of U.S. Oil and Refining Co.; integrated marketer.

*Total Leonard, Inc.—100 percent owned by Total Petroleum, Ltd. (Canada); vertically integrated; involved in exploration, marketing, refining, transportation.

*Total Leonard, Inc.—100 percent owned by Total Petroleum, Ltd. (Canada); involved in exploration, marketing, refining, transportation.

Transocean Oil, Inc.—independent producer.

*Union Oil Company of California—major; foreign; geothermal; names: 76, Union.

*Union Texas Petroleum—subsidiary of Allied Chemical; involved in production.

Vickers Petroleum Corporation—independent involved in marketing and transportation; foreign.

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* Company responded to survey.

Sources: survey; John Iannone, The Petroleum Industry: A Report on Corporate and Industry Structure and Ownership, prepared for the Federal Energy Administration, 1975; Moody's Industrial Manual; National Petroleum News.

Appendix C

Directorate Affiliations, 1964–73

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
3M CANADA LTD.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		51 PR
417 PARK AVENUE CORP.					
CONTINENTAL OIL CO.	LAWRENCE,ARTHUR B.		69		69
5TH DIMENSION,INC.					
TESORO PETROLEUM CORP.	WOHLSTETTER,CHARLES				61
6 BAR CATTLE CO.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR	PARTNER	71 PR
A. FINKL & SONS CO.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
A. JOHNSON & CO.,N.Y.					
COMMONWEALTH OIL REFINING	WALSTROM,JOHN A.		67 PR		
A.F.MAYNE & ASSOC.,LTD.					
PHILLIPS PETROLEUM CO.	MAYNE,A.F.		68 72	PRESIDENT	
A.I.A. CORP.					
EL PASO NATURAL GAS CO	SHINN,PHILLIP M.				72 PR
EL PASO NATURAL GAS CO	NELSON,RICHARD R. JR.				72 PR
EL PASO NATURAL GAS CO	ELLIOTT,JACK S.				72 PR
EL PASO NATURAL GAS CO	BIRKELO,JAMES				72 PR
A.I.M.E.					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			59 76
A.P. FRAME LTD.TORONTO CANADA					
HUSKY OIL LIMITED	FRAME,ALFRED PUTNAM		65 69	PRESIDENT	
ABBOTT LABORATORIES					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		69 73
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR		68 PR
STD OIL CO. OF INDIANA	CAIN,GEORGE R.		68 72		47 72
ABBOTT UNIVERSAL LTD.					
STD OIL CO. OF INDIANA	CAIN,GEORGE R.		68 72		47 72
ABERCROMBIE & FITCH					
STANDARD OIL CO.OF CALIF.	O'BRIEN,JAMES E.	VICE PRESIDENT			58 66
ABILENE INDUSTRIAL FDN.					
LONE STAR GAS CO.	JONES,MORGAN JR.		60 PR		
ABITIBI PAPER CO. LTD.					
CONTINENTAL OIL CO.	NORSTAD,LAURIS				68 PR
ABSCO HOLDINGS LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ACADEMY OF POLITICAL SCIENCE					
CHAMPLIN PETROLEUM CO.	BROWN,C.C.				
ACADEMY OF SCIENCE OF ST.LOUIS					
MONSANTO COMPANY	MUELLER,ROBERT K.	VICE PRESIDENT	61 68		
ACCESS CORP.					
TENNECO INC.	HALL,JOSEPH B.		63 70		64 PR
ACUITY SYSTEMS,INC.					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		73 74
ADA INVESTMENT AND BUILDING CO.					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 71
ADDISON AIRPORT					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
ADDRESSOGRAPH-MULTIGRAPH CORP.					
STANDARD OIL CO. OF OHIO	SHEPARD,HORACE A.		65 PR		
DIAMOND SHAMROCK OIL & GAS	SHEPARD,HORACE A.		67 PR		
ADELA INVESTMT CO.,S.A.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
EXXON CORP.	COLLADO,EMILIO G.		60 PR		64 74
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
ADVERTISING COUNCIL					
EXXON CORP.	MORGENS,HOWARD J.		67 69		67 68
AEROQUIP CORP.					
MARATHON OIL COMPANY	WINGERTER,ROBERT G.		74 PR		
AEROSPACE CORP.					
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		68 69
AETNA FUND, INC.					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		70 PR
AGCO CORP.					
CHAMPLIN PETROLEUM CO.	MILLER,M.F.				
AGRIBUSINESS COUNCIL,INC.,EXEC. COMM					
EXXON CORP.	GARVIN,CLIFFORD C. JR.				68 68
AGRICULTURAL CHEMICALS & FERTILIZERS					
OCCIDENTAL PETROLEUM CORP.	GATED,A.P.		73 PR	EXEC.VICE PRESIDENT	
AIR FORCE AID SOCIETY					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		68 PR
AIR PRODUCTS & CHEMICALS,INC.					
STANDARD OIL CO. OF OHIO	GLENNAN,T.KEITH		58 58		
AIR-VUE PRODUCTS CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
AKIN HALL ASSOC.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR	TRUSTEE	67 PR
AKRON,CANTON & YOUNGSTOWN RAILROAD					
UNION TEXAS PETROLEUM	FISHWICK,JOHN P.		73 PR		
ALABAMA DRY DOCK & SHIPBUILDING CO.					
LOUISIANA LAND & EXPLOR.	GRAHAM,FORD M.	CHAIR.OF EXEC.COMM.	60 PR		72 73
ALEMCO					
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR	CHAIR.OF BOARD	61 PR
ALFRED P. SLOAN FOUNDATION					
MOBIL OIL CORPORATION	WILLIAMS,ALBERT L.		60 PR	TRUSTEE	PR
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		71 73
EXXON CORP.	GARVIN,CLIFFORD C. JR.				73 73
ALGANQUIN FUND					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
ALGOMA STEEL CORP.,LTD.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		60 71
ALL SAINTS EPISC. SCHOOL					
MURPHY OIL CO.	KELLER,CHRISTOPH JR.		48 PR	TRUSTEE	
ALLEGHENY AIRLINES,INC.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
ALLEGHENY COLLEGE					
CONTINENTAL OIL CO.	CORCORAN,JOHN				66 73
ALLEGHENY CONF.ON COMMUN.DEV.					
STANDARD OIL CO. OF OHIO	SWENSRUD,SIDNEY A.	FMR VICE PRESIDENT	58 70		
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR	SECRETARY	PR
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		73 PR
ALLEGHENY FOUNDATION					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR	TRUSTEE	PR
ALLEGHENY LUDLUM INDUSTRIES, INC.					
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		71 PR
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		
ALLEGHENY POWER SYSTEM					
UNION TEXAS PETROLEUM	NICHOLS,C.W. JR.		55 PR		
ALLIANCE FOR REGIONAL COMM. HEALTH					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
ALLIED ARTS FDN,OKLA. CITY,OKLA.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			70 74

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ALLIED BANK INTNL,NYC					
MURPHY OIL CO.	MORGAN,ALLEN		73 PR		
ALLIED CHEMICAL CANADA,LTD.					
UNION TEXAS PETROLEUM	NOTMAN,J.GEOFFREY		58 73		
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		58 PR
ALLIED EQUITIES CORP.					
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
ALLIS CHALMERS					
MARATHON OIL COMPANY	MULFORD,RAYMON H.		66 73		
ALLOMON CORP.					
PENNZOIL CO.	GILPATRICK,R.B. JR.		68 PR		72 PR
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	TRUSTEE	70 PR
DIAMOND SHAMROCK OIL & GAS	BARNES,J. DAVID		71 PR		
ALMA COLLEGE					
TOTAL LEONARD,INC.	BRAZELL,REID	PRESIDENT	37 71		64 PR
ALUMINUM CO. OF AMERICA					
GULF OIL CORPORATION	WYCKOFF,GEORGE W.		64 68		57 69
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR		69 PR
GULF OIL CORPORATION	BROCKETT,E.D.		60 PR		69 PR
ALZA CORP.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
AM.INST.MIN.METAL.&PETROL.ENGINEERS					
PENNZOIL CO.	ATWOOD,G.E.		72 PR		58 PR
MOBIL OIL CORPORATION	NELSON,THEODORE W.	EXEC.VICE PRESIDENT	70 PR		
EXXON CORP.	BRISCO,MILO M.		66 72		70 72
AMALGAMATED SUGAR CO.					
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
AMAX AID FUND,INC.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
AMAX ALUMINUM CO.,INC.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
AMAX CREDIT CORP.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
AMAX IRON ORE CORP.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
AMAX PETROLEUM CORP.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
AMAZON CORP.					
PENNZOIL CO.	ATWOOD,G.E.		72 PR		64 71

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
AMER ASSN OF PETROLEUM GEOLOGISTS					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	67 PR
EXXON CORP.	BARROW,THOMAS D.		72 PR		72 74
AMER. ACAD. OF ARTS & SCIENCES					
EXXON CORP.	STRATTON,JULIUS A.		66 70		68 68
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 74
AMER. ARBITRATION ASSOC.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		72 PR
AMER. BAR ASSOC.					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		70 71
AMER. BICENTENNIAL FLEET					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		73 PR
AMER. BROADCASTING CO.					
AMERADA HESS CORP.	HESS,LEON	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68		
AMER. CAN CO.					
DIAMOND SHAMROCK OIL & GAS	DE WINDT,E. MANDELL		69 PR		
AMER. CANCER SOC.					
STANDARD OIL CO. OF OHIO	WHITEHOUSE,ALTON W.JR.	PRESIDENT	67 PR		69 PR
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
AMER. CHEMICAL SOC.					
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 74
EXXON CORP.	GARVIN,CLIFFORD C. JR.				70 73
EXXON CORP.	COX,DONALD M.		71 PR		71 74
AMER. COLL.OF LIFE INS. UNDERWRITERS					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		72 73
AMER. COUNCIL ON EDUCATION					
TEXACO,INC.	MCGILL,WILLIAM J.		73 PR		72 PR
AMER. CYANAMID CO					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
AMER. ENTERPRISE DEVEL.CORP.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		67 72
AMER. ENTERPRISE INST.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR	TRUSTEE	67 PR
AMER. ENTERPRISE INST.FOR PUB.POL.					
MOBIL OIL CORPORATION	SCHMIDT,HERMAN J.	VICE-CHAIR.OF BOARD EXEC.VICE PRESIDENT	57 PR	TRUSTEE	PR
AMER. EXPRESS CO.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		66 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MURPHY OIL CO.	OWEN,RALPH		60 PR		
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
AMER. EXPRESS INTNL. BANKING CORP.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		66 PR
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
AMER. FLETCHER NATL BANK & TRUST CO.					
ROCK ISLAND REFINERY CORP.	WINKLER,L.E.	PRESIDENT	64 70		64 65
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		71 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		70 72
AMER. FRIENDS OF THE HEBREW UNIV.					
BELCO PETROLEUM CO	BELFER,ARTHUR B.	CHAIR.OF BOARD	59 PR		73 PR
AMER. GAS ASSOC.					
PENNZOIL CO.	PARKES,ED		68 72		59 65
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
LONE STAR GAS CO.	JAMES,LOUIS G.	PRESIDENT	67 72		
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		
AMER. GILSONITE CO.					
STANDARD OIL CO.OF CALIF.	MILLER,O.N.				67 74
STANDARD OIL CO.OF CALIF.	KITTO,C.W.	VICE PRESIDENT			73 PR
STANDARD OIL CO.OF CALIF.	GREY,J.R.	PRESIDENT			70 73
STANDARD OIL CO.OF CALIF.	FOLLIS,R.C.				46 66
AMER. INS.AGENCY OF LA.,INC.					
EL PASO NATURAL GAS CO	SHINN,PHILLIP M.				72 PR
EL PASO NATURAL GAS CO	NELSON,RICHARD R. JR.				72 PR
EL PASO NATURAL GAS CO	ELLIOTT,JACK S.				72 PR
EL PASO NATURAL GAS CO	BIRKELO,JAMES				72 PR
AMER. INST. OF CHEMICAL ENGINEERS					
EXXON CORP.	PIERCY,GEORGE T.		66 PR		70 74
EXXON CORP.	GARVIN,CLIFFORD C. JR.				70 73
AMER. LIFE INSUR. ASSOC.					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		71 PR
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		73 73
AMER. METAL CLIMAX,INC.					
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR	CHAIR.OF BOARD	
AMER. MINING CONGRESS					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			74 PR
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		71 73
DIAMOND SHAMROCK OIL & GAS	BENSON,KEITH S.		69 71		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
AMER. MORGAN HORSE ASSOC.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
AMER. MUTUAL FUND,INC.					
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
MONSANTO COMPANY	HOOVER,ROBERT JR.		58 69		
AMER. NATL BANK OF JACKSONVILLE					
GEN AMER. OIL CO. OF TEXAS	DAVIN,JOSEPH W.		64 PR		64 PR
AMER. NATL. CORP.					
STD OIL CO. OF INDIANA	MYERS,GEORGE V.	PRESIDENT	56 PR		68 73
AMER. NATL. FIRE INS. CO.					
TEXACO,INC.	HARRIS,HENRY U.		35 73		51 68
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		71 72
AMER. NATURAL GAS CO.					
CITIES SERVICE CO.	BAM,FOSTER		73 PR		
AMER. ORDNANCE ASSOC.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		65 66
AMER. OVERSEAS PETROL. LTD.					
STANDARD OIL CO.OF CALIF.	LENZEN,T.L.				52 68
STANDARD OIL CO.OF CALIF.	HAYNES,J.T.	CHAIR.OF BOARD			66 69
AMER. PHILOSOPHICAL SOCIETY					
EXXON CORP.	STRATTON,JULIUS A.		66 70		67 69
AMER. POTATO CO.					
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
AMER. PRECISION IND.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
AMER. RED CROSS					
STD OIL CO. OF INDIANA	MYERS,GEORGE V.	PRESIDENT	56 PR		64 70
KERR-MCGEE CORP.	SEALE,A.T.F.	FMR VICE PRESIDENT	65 PR		65 73
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				67 70
AMER. RED CROSS,BD. OF GOVERNORS					
EXXON CORP.	LEARSON,T. VINCENT		69 PR		73 74
AMER. RED CROSS,EXEC. BD.					
EXXON CORP.	LEARSON,T. VINCENT		69 PR		69 72
AMER. RESEARCH & DEVEL. CORP.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		72 PR
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		62 72
AMER. SECURITY AND TRUST CO.					
MOBIL OIL CORPORATION	MCGHEE,GEORGE C.		69 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
AMER. SECURITY BANK					
TOTAL LEONARD,INC.	LEONARD,J.W.	CHAIR.OF BOARD	36 70		64 PR
AMER. SOC. FOR PUBLIC ADMINISTRATION					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		65 70
AMER. STOCK EXCHANGE					
TEXAS OIL & GAS CO.	HUBER,AUGUST		70 PR		60 66
AMER. TELEPHONE & TELEGRAPH CO.					
TEXACO,INC.	MCGILL,WILLIAM J.		73 PR		72 PR
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
EXXON CORP.	RATHBONE,MONROE J.		49 65		64 64
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		66 69
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				62
CITIES SERVICE CO.	ROMNES,H.I.		67 73	CHAIR.OF EXEC.COMM.	
AMER. TRADING AND PRODUCTION CORP.					
STD OIL CO. OF INDIANA	BLAUSTEIN,JACOB		54 70		31 70
CROWN CENTRAL PETROL CORP	WEISS,J.WARREN		70 PR	TREASURER VICE PRESIDENT	
AMER.BANKERS INSUR.CO.OF FLORIDA					
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
AMER.EXPORT INDUSTRIES,INC.					
STANDARD OIL CO. OF OHIO	GLENNAN,T.KEITH		58 58		
AMER.FDN.FOR PHARMACEUTICAL EDUC.					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		74 PR
AMER.INDEPENDENT OIL CO. OF IRAN					
ASHLAND OIL, INC.	SEATON,WILLIAM R.	VICE-CHAIR.OF BOARD	69 PR		
AMER.INTNL BANK					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		68 70
AMER.NATL.BANK & TRUST CO.OF CHICAGO					
STD OIL CO. OF INDIANA	MYERS,GEORGE V.	PRESIDENT	56 PR		60 PR
AMER.REVOLUTION BICENTENNIAL COMMIS.					
CONTINENTAL OIL CO.	NORSTAD,LAURIS				67 69
AMER.SOC.FOR FRIENDSHIP WITH SWITZ.					
EXXON CORP.	MILBRATH,ROBERT H.	TRUSTEE	69 73		70 70
AMER.TELEVISION&COMMUNICATIONS CORP.					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		71 PR
AMERICAN AIRLINES,INC.					
MONSANTO COMPANY	QUEENN,EDGAR M.	CHAIR.OF BOARD	19 68		
AMERICAN ASSEMBLY,INC.					
CHAMPLIN PETROLEUM CO.	BROWN,C.C.				

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
AMERICAN AUSTRALIAN ENERGY LTD.					
LONE STAR GAS CO.	WILLIAMS,R.B.				72 PR
LONE STAR GAS CO.	SINGER,S.R.				72 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		72 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		72 PR
LONE STAR GAS CO.	FOWLER,R.G.				72 PR
AMERICAN AUTOMOBILE ASSN.					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
AMERICAN BANK NOTE CO.					
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
AMERICAN BANK OF EDMOND					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		70 PR
AMERICAN BANK OF TULSA					
GULF OIL CORPORATION	WARREN,W.K.		64 69		71 PR
AMERICAN BANK-ODESSA,TEXAS					
EL PASO NATURAL GAS CO	NOEL,W.D.				55 PR
AMERICAN BUILDING CORP.-ODESSA					
EL PASO NATURAL GAS CO	NOEL,W.D.				59 PR
AMERICAN CASUALTY CO.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		44 70
AMERICAN CAUSE					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		74 PR
AMERICAN CORPORATE RESOURCES,INC.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				70 72
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		70 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	SMITH,G.B.				70 72
EL PASO NATURAL GAS CO	SIMECHECK,D.M.				70 72
EL PASO NATURAL GAS CO	NAJAIKO,E.G.	VICE PRESIDENT ASSISTANT SECRETARY			70 PR
EL PASO NATURAL GAS CO	NACHOD,J.E. JR.				70 71
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				70 71
EL PASO NATURAL GAS CO	IMBER,J.R.				70 72
EL PASO NATURAL GAS CO	ELLIOTT,JACK S.				70 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		72 PR
EL PASO NATURAL GAS CO	AMES,C.B.				70 72
AMERICAN ELECTRIC POWER CO.					
CHAMPLIN PETROLEUM CO.	BROWN,C.C.				
AMERICAN EUROPEAN ASSOCIATES,INC.					
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		68 PR
AMERICAN FIDELITY ASSURANCE CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				65 PR
AMERICAN FIDELITY INSURANCE CO.					
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				65 PR
AMERICAN GENERAL INS. CO.					
GENERAL CRUDE OIL CO.	ATTWELL,J.E.				
EXXON CORP.	WRIGHT,MYRON A.		58 66		74 74
AMERICAN GENERAL LIFE INSURANCE CO.					
TENNECO INC.	FREEMAN,N.W.	CHAIR.OF BOARD	66 74		PR
AMERICAN HOME PRODUCTS CORP.					
MOBIL OIL CORPORATION	BORCH,FRED J.		73 PR		
AMERICAN INDIAN NATL BK					
PHILLIPS PETROLEUM CO.	KEELER,W.W.	FMR CHAIR.OF BOARD	64 74		73 74
AMERICAN INSURANCE AGENCY,INC.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				65 73
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		67 PR
EL PASO NATURAL GAS CO	THURMAN,D.B.				65 67
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				65 67
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	SMITH,G.B.				68 72
EL PASO NATURAL GAS CO	SIMECHECK,D.M.				67 72
EL PASO NATURAL GAS CO	SHINN,PHILLIP M.			TREASURER ASSISTANT SECRETARY	
EL PASO NATURAL GAS CO	OWENS,JESSE L.				65 67
EL PASO NATURAL GAS CO	NOEL,W.D.				65 70
EL PASO NATURAL GAS CO	NELSON,RICHARD R. JR.			VICE PRESIDENT	
EL PASO NATURAL GAS CO	NAJAIKO,E.G.	VICE PRESIDENT ASSISTANT SECRETARY			69 PR
EL PASO NATURAL GAS CO	NACHOD,J.E. JR.				69 72
EL PASO NATURAL GAS CO	MOORE,C.L.				65 66
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				65 72
EL PASO NATURAL GAS CO	IMBER,J.R.				67 73
EL PASO NATURAL GAS CO	GREEN,J.D.				67 67
EL PASO NATURAL GAS CO	ELLIOTT,JACK S.			PRESIDENT	67 PR
EL PASO NATURAL GAS CO	BIRKELO,JAMES			VICE PRESIDENT	
EL PASO NATURAL GAS CO	ATCHESON,M.M.	VICE PRESIDENT	68 70		66 67
EL PASO NATURAL GAS CO	AMES,C.B.				67 73
AMERICAN INSURANCE AGENCY,INC.N.MEX					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				70 73
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		70 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	SMITH,G.B.				70 72
EL PASO NATURAL GAS CO	SIMECHECK,D.M.				70 72
EL PASO NATURAL GAS CO	NAJAIKO,E.G.	VICE PRESIDENT ASSISTANT SECRETARY			70 PR
EL PASO NATURAL GAS CO	NACHOD,J.E. JR.				70 72
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				70 72

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO NATURAL GAS CO	IMBER,J.R.				70 73
EL PASO NATURAL GAS CO	ELLIOTT,JACK S.				70 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
EL PASO NATURAL GAS CO	AMES,C.B.				70 73
AMERICAN INVESTMENT CO.					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
AMERICAN IRON & STEEL INSTITUTE					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		63 68
AMERICAN MANAGEMENT ASSOCS.					
UNION TEXAS PETROLEUM	TROWBRIDGE,ALEXANDER B.		68 PR	PRESIDENT	
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR	CHAIR.OF BOARD	
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR		63 66
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		69 70
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71		
AMERICAN MEDICORP,INC.					
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
AMERICAN MOTORS CORP.					
UNION TEXAS PETROLEUM	TROWBRIDGE,ALEXANDER B.		68 PR		
AMERICAN MUSEUM OF NATURAL HISTORY					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR	TRUSTEE	64 69
AMERICAN NEAR EAST REFUGEE AID,INC.					
GULF OIL CORPORATION	LEE,JAMES E.		73 PR		73 PR
AMERICAN PETROLEUM INSTITUTE					
UNION TEXAS PETROLEUM	BRADFORD,DAVID M. JR.	PRESIDENT EXEC.VICE PRESIDENT	70 PR		
TEXACO,INC.	YOUNG,WILFROD R.	VICE-CHAIR.OF BOARD GENERAL COUNSEL	72 PR		74 PR
TEXACO,INC.	PIPKIN,JAMES H.		71 74		71 74
TEXACO,INC.	MCKINLEY,JOHN K.	PRESIDENT	71 PR		71 PR
TEXACO,INC.	LONG,AUGUSTUS C.	CHAIR.OF EXEC.COMM.	50 PR		57 64
TEXACO,INC.	GRANVILLE,MAURICE F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	70 PR		70 PR
STANDARD OIL CO. OF OHIO	WHITEHOUSE,ALTON W.JR.	PRESIDENT	67 PR		
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		
STANDARD OIL CO. OF OHIO	SAUER,RICHARD C.	FMR VICE PRESIDENT	58 69		
STANDARD OIL CO. OF OHIO	HARNETT,JOSEPH D.	EXEC.VICE PRESIDENT	68 PR		
STANDARD OIL CO. OF OHIO	ELLIOTT,SAMUEL H.		49 66		
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		58 PR
STD OIL CO. OF INDIANA	MYERS,GEORGE V.	PRESIDENT	56 PR		60 PR
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		59 PR
STD OIL CO. OF INDIANA	BLAUSTEIN,JACOB		54 70		67 70
STANDARD OIL CO.OF CALIF.	HAYNES,J.T.	CHAIR.OF BOARD			69 PR
STANDARD OIL CO.OF CALIF.	GREY,J.R.	PRESIDENT			74 PR
STANDARD OIL CO.OF CALIF.	GOSLINE,J.E.				68 73

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		67 72
PHILLIPS PETROLEUM CO.	MARTIN,W.F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	64 PR		70 PR
PHILLIPS PETROLEUM CO.	LEARNED,STANLEY		64 70		64 70
PHILLIPS PETROLEUM CO.	HOUCHIN,JOHN M.	FMR CHAIR.OF BOARD	64 PR		68 73
PHILLIPS PETROLEUM CO.	ENDACOTT,PAUL	VICE-CHAIR.OF BOARD	64 67		64 67
PENNZOIL CO.	PARKES,ED		68 72		56 68
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		68 PR
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		62 PR
MONSANTO COMPANY	REESE,FRANCIS E.	VICE PRESIDENT MANAGING DIRECTOR	73 PR		
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		
MOBIL OIL CORPORATION	MOORE,FRED H.		61 66		
MARATHON OIL COMPANY	YOUNG,GRANT H.	CHAIR.OF EXEC.COMM.	63 73		
MARATHON OIL COMPANY	HOOPMAN,HAROLD D.	PRESIDENT	72 PR		72 PR
MARATHON OIL COMPANY	HARDWICK,CHARLES Z.	EXEC.VICE PRESIDENT	48 66		
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
MARATHON OIL COMPANY	DONNELL,JAMES C. II	CHAIR.OF BOARD	36 PR		45 PR
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		71 73
KERR-MCGEE CORP.	KELLY,JAMES J.	PRESIDENT CHIEF OPER.OFFICER	72 PR		73 PR
HUNT OIL CO.	HUNT,H.L.	CHAIR.OF BOARD PRESIDENT	64 PR		64 PR
GULF OIL CORPORATION	LEE,JAMES E.		73 PR		73 PR
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		65 PR
GULF OIL CORPORATION	DAVIS,I.G.		64 73		71 73
GULF OIL CORPORATION	DAVIS,I.G.		64 73		65 69
GETTY OIL COMPANY	GETTY,E.PAUL	CHAIR.OF EXEC.COMM.	65 67		
EXXON CORP.	WRIGHT,MYRON A.		58 66		73 74
EXXON CORP.	RATHBONE,MONROE J.		49 65		64 64
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		67 74
EXXON CORP.	HAIDER,MICHAEL L.		59 69		64 69
EXXON CORP.	GARVIN,CLIFFORD C. JR.				73 74
EXXON CORP.	BRISCO,MILO M.		66 72		70 72
CONTINENTAL OIL CO.	PEARSON,GERALD T.				65 68
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.				48 69
CONTINENTAL OIL CO.	HARDESTY,C. HOWARD JR.	DIVISION PRESIDENT			71 75
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			68 PR
AMERICAN POTASH & CHEMICAL CORP.					
KERR-MCGEE CORP.	JORGENSEN,EARLE M.		67 PR		65 67
KERR-MCGEE CORP.	COLEFAX,PETER		67 PR		65 67
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
AMERICAN REINSURANCE CO.					
PHILLIPS PETROLEUM CO.	PIEL,WILLIAM JR.		64 PR		64 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
AMERICAN SOCIETY FOR OCEANOGRAPHY					
EL PASO NATURAL GAS CO	GLASSELL,ALFRED C. JR.		57 PR		
AMERICAN STANDARD INC.					
SHELL OIL COMPANY	SPAGHT,M.E.		53 PR		
AMERICAN TEXTILE MFRS INST.					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		61 64
AMERICAN TIDELANDS LIFE INS. CO.					
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			66 PR
AMERICAN TRUSTEE CORP.					
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		73 PR
AMERICAN UNIVERSITY IN BEIRUT					
EXXON CORP.	PAGE,HOWARD W.		54 70		64 70
AMERICAN-KOREAN FOUNDATION,INC.					
MONSANTO COMPANY	QUEENN,EDGAR M.	CHAIR.OF BOARD	19 68		
AMERICANA COMM.FOR THE NATL ARCHIVES					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		74 PR
AMF,INC.					
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72		59 PR
SHELL OIL COMPANY	COOK,C.W.		73 PR		
AMFAC,INC.					
SHELL OIL COMPANY	BLACK,J.B.		50 65		
AMHERST COLLEGE					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR	TRUSTEE	70 PR
AMOCO FDN.,INC.					
STD OIL CO. OF INDIANA	MYERS,GEORGE V.	PRESIDENT	56 PR		61 PR
AMOCO INTERNATL OIL CO.					
COMMONWEALTH OIL REFINING	CUMBERLAND,JULIAN O.		72 73		
AMOCO OIL FDN.(FMLY STD.OIL FDN.)					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		58 PR
AMOCO PRODUCTION CO.					
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR	PRESIDENT	
CLINTON OIL CO.	BEDFORD,CHARLES F.		73 PR		49 72
AMOCO STEEL CORP.					
STD OIL CO. OF INDIANA	JOHNSTON,LOGAN T.		63 71		58 70
AMPEX CORP.					
STANDARD OIL CO.OF CALIF.	LUCKS,ROY G.				
SHELL OIL COMPANY	BLACKIE,WILLIAM		64 PR		
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR		56 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ANACONDA CO.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		67 PR
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72	CHAIR.OF BOARD PRESIDENT	
CHAMPLIN PETROLEUM CO.	PLACE,J.B.M.	CHAIR.OF BOARD PRESIDENT			
CHAMPLIN PETROLEUM CO.	EVANS,J.H.				
ANCHOR HOCKING CORP.					
DIAMOND SHAMROCK OIL & GAS	REAVIS,JOHN W.		64 72		
ANDERSON,CLAYTON,& CO.					
SHELL OIL COMPANY	MCASHAN,S.M.		63 PR	CHAIR.OF BOARD	
ANDREWS,KURTH,CAMPBELL & JONES					
GENERAL CRUDE OIL CO.	STREETMAN,W.M.			GENERAL COUNSEL	
ANGLO-MORNESS SHIPPING CO. LTD.					
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR		
ANHEUSER-BUSCH,INC.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
DIAMOND SHAMROCK OIL & GAS	PERSONS,WALLACE R.		65 PR		
ANLACO.,INC.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
ANTA CORP.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		73 PR
APCO OIL CORP.					
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		71 PR
APM WAREHOUSE,INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		73 PR
APPLIED LOGIC,INC.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		71 PR
ARABIAN AMER. OIL CO.					
STANDARD OIL CO.OF CALIF.	PARKHURST,G.L.				53 71
STANDARD OIL CO.OF CALIF.	KELLER,G.M.	VICE-CHAIR.OF BOARD			71 PR
MOBIL OIL CORPORATION	SCHMIDT,HERMAN J.	VICE-CHAIR.OF BOARD EXEC.VICE PRESIDENT	57 PR		PR
EXXON CORP.	PIERCY,GEORGE T.		66 PR		67 74
EXXON CORP.	PAGE,HOWARD W.		54 70		64 66
ARABIAN SHIELD DEVELOPMENT CO.					
CLARK OIL & REFINING CORP.	CRICHTON,JOHN A.		72 PR		67 PR
ARCHIBALD CANDY CORP.					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		45 PR
ARIZONA MINING ASSOC.					
PENNZOIL CO.	ATWOOD,G.E.		72 PR		72 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ARIZONA TAX RESEARCH ASSOC.					
PENNZOIL CO.	ATWOOD,G.E.		72 PR		72 PR
ARKANSAS BASIN DEV. ASSOC.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
ARKANSAS PETERBILT,INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		72 PR
ARKANSAS STATE CHAMBER OF COMMERCE					
LION OIL CO.	SHEEHAN,J.H.	SR.VICE PRESIDENT	72 PR		73 PR
ARLEN REALTY & DEVELOPMENT CORP.					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72		
ARMCO STEEL CORP.					
MONSANTO COMPANY	HANLEY,JOHN W.	PRESIDENT CHIEF EXEC.OFFICER	72 PR		
MARATHON OIL COMPANY	DONNELL,JAMES C. II	CHAIR.OF BOARD	36 PR		60 PR
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		63 69
ARMOUR AND CO.					
STD OIL CO. OF INDIANA	LIVINGSTON,HOMER J.		56 70		55 70
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		
ARMSTRONG RUBBER CO.					
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72		
ART GRAVURE CORP.OF OHIO					
OCCIDENTAL PETROLEUM CORP.	VAIL,HERMAN L.	ATTORNEY	68 PR		70
ARTHUR A. EVERTS CO.					
EXCHANGE OIL AND GAS CORP.	SMITH,CECIL L.				73 PR
ARTHUR D. LITTLE,INC.					
COMMONWEALTH OIL REFINING	MOSCOSO,TEODORO		64 73		
ARTS & EDUCATION COUNCIL OF ST.LOUIS					
MONSANTO COMPANY	SMITH,M.K. JR.		71 PR		
ARVIDA CORP.					
GEN AMER. OIL CO. OF TEXAS	WHATLEY,BROWN L.		PR	PRESIDENT	64 PR
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR		
ASEA INC.					
COMMONWEALTH OIL REFINING	LOCKWOOD,WILLIAM A.		73 PR		
ASHCRAFT-WILKINSON CO.					
PENNZOIL CO.	MORRIS,W.P.		69 72		68 72
PENNZOIL CO.	ATWOOD,G.E.		72 PR		72 PR
ASHLAND CHEMICAL CO.					
ASHLAND OIL, INC.	ROSS,F.H. JR.		71 PR	VICE PRESIDENT	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ASHLAND OIL FOUNDATION					
ASHLAND OIL, INC.	BLAZER,PAUL G. JR.		66 PR	PRESIDENT	
ASIA FOUNDATION					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	
ASIA SOCIETY					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	
ASIAN INST.OF TECHNOLOGY FDN,INC.					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				66
ASIATIC PETROLEUM CORP.					
COMMONWEALTH OIL REFINING	WALSTROM,JOHN A.		67 PR	FMR VICE PRESIDENT	
ASPEN INSTIT.FOR HUMANISTIC STUDIES					
MOBIL OIL CORPORATION	MCGHEE,GEORGE C.		69 PR	TRUSTEE	
ASPHALT INST.					
MARATHON OIL COMPANY	YOUNG,GRANT H.	CHAIR.OF EXEC.COMM.	63 73		
MARATHON OIL COMPANY	MORIARTY,FRANCIS C.	SR.VICE PRESIDENT	69 72		
MARATHON OIL COMPANY	HOOPMAN,HAROLD D.	PRESIDENT	72 PR		71 72
KERR-MCGEE CORP.	KELLY,JAMES J.	PRESIDENT CHIEF OPER.OFFICER	72 PR		65 PR
ASPHALT INSTITUTE					
LION OIL CO.	SHEEHAN,J.H.	SR.VICE PRESIDENT	72 PR		55 73
ASPIRA,INC.,OF ILLINOIS,BD OF GOV.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		72 73
ASSOC. COLLEGES OF IND.,BD.OF GOV.					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		73 PR
ASSOC. DRY GOODS CORP.					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
CHAMPLIN PETROLEUM CO.	BROWN,C.C.				
ASSOC. FOR COMMUNITY TV					
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		72 PR
ASSOC. LIFE INS. CO.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		68 PR
ASSOC. OF RESERVE CITY BANKERS					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		72 PR
ASSOC. UNIVS. INC.					
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 74
ASSOC.OF OIL WELL SERV.CONTRACTORS					
LONE STAR GAS CO.	POOL,FRANK M.				
ASSOC.OF REGISTERED BANK HOLDING COS					
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
ASSOCIATES INVESTMENT CO.,S.BEND,IND					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71		
ATAPAZ PETROLEUM,INC.					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		69 71
PENNZOIL CO.	COLEMAN,GEORGE L.		68 PR		69 71
PENNZOIL CO.	BROWN,W.L. LYONS		68 72		69 71
ATCHAFALAYA LAND CORP.					
LOUISIANA LAND & EXPLOR.	BENSON,LAWRENCE K.		61 PR		57 PR
ATEC-HOUSTON,INC.					
APCO OIL CORP.	MCCOLLUM,L.FRANKLIN,JR.		72 PR		71 PR
ATHENS COLLEGE,ATHENS,GREECE					
MOBIL OIL CORPORATION	TAVOULAREAS,WILLIAM P.	PRESIDENT FMR VICE PRESIDENT	65 PR	TRUSTEE	PR
ATICO MTGE INVESTORS					
TEXACO,INC.	LONG,AUGUSTUS C.	CHAIR.OF EXEC.COMM.	50 PR		69 PR
ATLANTA UNIVERSITY					
UNION TEXAS PETROLEUM	MINTON,HENRY M.		4 97	TRUSTEE	
ATLANTIC & E. CAROLINA RWY CO.					
CITIES SERVICE CO.	SANFORD,TERRY		71 PR		
ATLANTIC ASSETS TRUST LTD.					
PENNZOIL CO.	GAMMELL,JAMES G.S.		68 PR		
ATLANTIC COUNCIL					
MONSANTO COMPANY	ANDERSON,DILLON		60 74		
ATLANTIC COUNCIL OF THE U.S.,INC.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		70 PR
EXXON CORP.	COLLADO,EMILIO G.		60 PR		65 74
CONTINENTAL OIL CO.	NORSTAD,LAURIS				63 PR
ATLANTIC NATL BK OF JACKSONVILLE					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR		72 PR
ATLAS PROCESSING CO.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		67 PR
PENNZOIL CO.	PARKES,ED		68 72		49 73
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		64 PR
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 66
ATLAS SUPPLY CO.					
STANDARD OIL CO. OF OHIO	HARNETT,JOSEPH D.	EXEC.VICE PRESIDENT	68 PR		64 PR
ATLED CORP.					
LOUISIANA LAND & EXPLOR.	BENSON,LAWRENCE K.		61 PR		64 68

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ATOMIC INDUSTRIAL FORUM,INC.					
PHILLIPS PETROLEUM CO.	THOMAS,R.W.	VICE PRESIDENT	64 64		64 64
KERR-MCGEE CORP.	PARKS,GEORGE B.	EXEC.VICE PRESIDENT	72 PR		72 PR
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		71 73
ATWOOD OCEANICS,INC.					
TESORO PETROLEUM CORP.	ROTE,JOHN				69
AUBREY G. LANSTON & CO.,INC.					
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
AUCHINCLOSS,PARKER & REDPATH					
TEXAS OIL & GAS CO.	BOYCE,RAYMOND		56 70	PARTNER	68 70
AUSNORAM HOLDINGS,LTD.					
FELMONT OIL CORP.	BARD,RALPH A.,JR.		72 PR		
AUSTRAL AIRLINES					
APCO OIL CORP.	REYNAL,WILLIAM J.		69 73	PRESIDENT	
AUSTRALIAN TIMKEN PROPRIETARY,LTD.					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		57 PR
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR		68 PR
AUTO PARTS & MACHINE CO. OF OKLA.INC					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		73 PR
AUTOMOBILE CLUB OF S. CALIF.					
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
AUTOMOTIVE SAFETY FDN.					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		59 69
AVCO CORP.					
STANDARD OIL CO. OF OHIO	GLENNAN,T.KEITH		58 58		
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR		64 67
AVERY MAYS CONSTRUCTION CO.					
LONE STAR GAS CO.	MAYS,AVERY		58 71	PRESIDENT	
AVICON,INC.					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		73 PR
MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR		
AVON PRODUCTS,INC.					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		64 PR
AXLE SERVICE,INC.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR	VICE PRESIDENT	69 PR
AZTEC OIL & GAS CO.					
DELHI INTERNATIONAL OIL CORP	SEWELL,J.L.		64 PR		
DELHI INTERNATIONAL OIL CORP	DENIUS,FRANK W.	ATTORNEY	64 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
BA INVESTMENT MANAGEMENT CORP					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR		
BAKER & BOTTS					
TENNECO INC.	MACKIN,B.JOHN		72 74		
TENNECO INC.	LOVETT,H.MALCOM		59 72	ATTORNEY	
PENNZOIL CO.	KERR,BAINE P.	GENERAL COUNSEL CHAIR.OF EXEC.COMM.	68 PR	ATTORNEY	
MONSANTO COMPANY	ANDERSON,DILLON		60 74	PARTNER	
MESA PETROLEUM COMPANY	STILLWELL,ROBERT L.		69 74	ATTORNEY PARTNER	
BAKER & DANIELS,ATTORNEYS					
PANHANDLE ESTRN PIPE LN.CO	DANIELS,JOSEPH J.		62 65	PARTNER	
BAKERSFIELD PETROLEUM CLUB					
LION OIL CO.	BROWN,T.P.				73 74
BAL.OF PAY.ADVIS.COMM.,U.S.DEPT.COMM					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		65 67
BALDWIN-WALLACE COLLEGE					
STANDARD OIL CO. OF OHIO	BALDWIN,E. COLIN		63 69		
BALL BROS. CO.,INC.					
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
BALMORHEA RANCHES,INC.					
MURPHY OIL CO.	LEVIN,JOSEPH J.		65 67		
BAMANGWATO CONCESSIONS LTD.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
BANCA D'AMERICA E D'ITALIA					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
BANCO CREDITO Y AHORRO PONCENO					
COMMONWEALTH OIL REFINING	SANZ,ANGEL A.		54 67		
COMMONWEALTH OIL REFINING	RIVERA,ANGEL M.		70 PR	PRESIDENT	
COMMONWEALTH OIL REFINING	BIRD,ESTEBAN A.		67 69		
BANCO DE ECONOMIA DE PUERTO RICO					
COMMONWEALTH OIL REFINING	CAMERO,SERGIO		74 PR		
BANCO DE PONCE					
COMMONWEALTH OIL REFINING	REXACH,HENRY C.		70 73		
COMMONWEALTH OIL REFINING	MOSCOSO,TEODORO		64 73		
BANCO POPULAR DE PUERTO RICO					
COMMONWEALTH OIL REFINING	PICO,RAFAEL		73 PR	VICE-CHAIR.OF BOARD	
BANK & TRUST CO.OF ARLINGTON HTS,ILL					
STD OIL CO. OF INDIANA	YARRINGTON,BLAINE J.	EXEC.VICE PRESIDENT	70 PR		70 74

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
BANK OF ALMA					
TOTAL LEONARD,INC.	SABOFF,STEPHEN D.	PRESIDENT	66 72		70 72
TOTAL LEONARD,INC.	GUTKNECHT,P.H.	SR.VICE PRESIDENT	70 PR		73 PR
TOTAL LEONARD,INC.	BRAZELL,REID	PRESIDENT	37 71		64 72
BANK OF AMER. (INTNL.)					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
STANDARD OIL CO.OF CALIF.	GREY,J.R.	PRESIDENT			74 PR
BANK OF AMER. NT&SA					
UNION OIL CO. OF CALIF.	HALE,PRENTIS C.		56 PR		56 PR
UNION OIL CO. OF CALIF.	DI GIORGIO,ROBERT	CHAIR.OF BOARD CHIEF EXEC.OFFICER	58 PR		53 PR
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR	CHAIR.OF EXEC.COMM.	
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	CHAIR.OF BOARD	71 PR
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71		65 PR
GETTY OIL COMPANY	GETTY,E.PAUL	CHAIR.OF EXEC.COMM.	65 67		
BANK OF AMER.,N.Y.					
MONSANTO COMPANY	O'NEAL,HOWARD H.		55 56		
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR		
BANK OF BERMUDA					
EL PASO NATURAL GAS CO	THOMPSON,WILLIAM D.				
BANK OF CALIF.					
STANDARD OIL CO.OF CALIF.	LUCKS,ROY G.				
BANK OF CALIF. NATL ASSN.					
SHELL OIL COMPANY	DE BRETTEVILLE,C.		65 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	
BANK OF CANTON (HONG KONG)					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
BANK OF COMMERCE					
LONE STAR GAS CO.	JONES,MORGAN JR.		60 PR		
BANK OF HAWAII					
STANDARD OIL CO.OF CALIF.	JOHNSON,RALPH B.				
BANK OF NEW YORK					
LOUISIANA LAND & EXPLOR.	PHILLIPS,JOHN G.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	62 PR		66 PR
EXXON CORP.	STOTT,WILLIAM R.		56 68		67 67
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
BANK OF NEW YORK CO.,INC.					
LOUISIANA LAND & EXPLOR.	PHILLIPS,JOHN G.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	62 PR		74 PR
BANK OF NEW YORK INTL.CORP.					
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
BANK OF NEW YORK, ADVISORY COMMITTEE					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72		
BANK OF NOV.SCOT.TRUST CO., N.Y.					
GULF OIL CORPORATION	LOUGHNEY,E.D.		64 70		69 PR
BANK OF NOVA SCOTIA					
GULF OIL CORPORATION	BROCKETT,E.D.		60 PR		66 72
BANK OF NOVA SCOTIA,TORONTO					
GULF OIL CORPORATION	LOUGHNEY,E.D.		64 70		60 66
BANK OF TEXAS					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		65 73
BANK OF THE BLUEGRASS,LEXINGTON,KY.					
ASHLAND OIL, INC.	MCDONALD,ANGUS W.		53 PR		
BANK OF THE SOUTHWEST					
SHELL OIL COMPANY	MCASHAN,S.M.		63 PR		
PENNZOIL CO.	KERR,BAINE P.	GENERAL COUNSEL CHAIR.OF EXEC.COMM.	68 PR		69 73
BANKAMERICA CORP.					
UNION OIL CO. OF CALIF.	DI GIORGIO,ROBERT	CHAIR.OF BOARD CHIEF EXEC.OFFICER	58 PR		68 PR
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
STANDARD OIL CO.OF CALIF.	GREY,J.R.	PRESIDENT			74 PR
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	CHAIR.OF BOARD	
BANKAMERICA REALTY SERVICES,INC.					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR		
BANKERS TRUST CO.					
MOBIL OIL CORPORATION	TAVOULAREAS,WILLIAM P.	PRESIDENT FMR VICE PRESIDENT	65 PR		PR
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR	VICE-CHAIR.OF BOARD	50 74
CONTINENTAL OIL CO.	TARKINGTON,A.W.	CONSULTANT			66 PR
BANKERS TRUST CO.,ADVIS.COMM.					
CONTINENTAL OIL CO.	LAWRENCE,ARTHUR B.		69		69
BANKERS TRUST NEW YORK CORP.					
MOBIL OIL CORPORATION	TAVOULAREAS,WILLIAM P.	PRESIDENT FMR VICE PRESIDENT	65 PR		PR
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
CONTINENTAL OIL CO.	TARKINGTON,A.W.	CONSULTANT			66 PR
BANNER CHEVROLET					
GEN AMER. OIL CO. OF TEXAS	GEAR,GEORGE A.		PR		70 PR
BANQUE BLYTH ET CIE,PARIS ,FRANCE					
GEN AMER. OIL CO. OF TEXAS	CONLEY,PAUL A.				64 67

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
BAPTIST FDN. OF TEXAS					
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
BAPTIST MEM. HOSP. OF OKLA. CITY					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 66
BARBER OIL CORP.					
EXCHANGE OIL AND GAS CORP.	KLINGENSTEIN,FREDERICK A	CHAIR.OF BOARD			73 PR
COMMONWEALTH OIL REFINING	LOCKWOOD,WILLIAM A.		73 PR		
BARBER-COLMAN CO.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
BARCLAY FUND,INC.					
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
BARNARD COLLEGE					
TEXACO,INC.	MCGILL,WILLIAM J.		73 PR		70 PR
EXXON CORP.	PETERSON,MARTHA		74 PR	PRESIDENT	74 74
BARTLESVILLE CHAMBER OF COMMERCE					
PHILLIPS PETROLEUM CO.	HOUCHIN,JOHN M.	FMR CHAIR.OF BOARD	64 PR		64 PR
BASIC MINERALS CORP.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR	CHIEF EXEC.OFFICER	70
BASIC VEGETABLE PRODUCTS,INC.					
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
BASKAHEGAN CO.					
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
BASS BROADCASTING CO.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
BASS BROS. ENTERPRISES INC.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
BASS BROS. TELECASTERS,INC.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
BASS ENTERPRISES PROD. CO.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
BASS EXPLOR. INC.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
BASS FDN.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
BAXTER SEARCH AGENCY					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		69 74
BAY STATE CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SUN OIL CO.	POUNDS,WILLIAM F.		73 PR		67 70
BAYLOR COLLEGE OF DENTISTRY					
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
BAYLOR COLLEGE OF MEDICINE					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR	TRUSTEE	69 PR
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.				69 PR
BAYOU HYDROCARBONS,INC.					
EXCHANGE OIL AND GAS CORP.	GOODWIN,ROBERT L.	PRESIDENT			68 PR
BAYROCK FUND					
MONSANTO COMPANY	SMITH,M.K. JR.		71 PR		
BAYSHORE NATL BANK OF LAPORTE, TEXAS					
TENNECO INC.	FREEMAN,N.W.	CHAIR.OF BOARD	66 74		PR
BEATRICE POCAHONTAS CO.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74	CHAIR.OF BOARD CHIEF EXEC.OFFICER	
BEAUNIT CORP.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				67 69
EL PASO NATURAL GAS CO	WHITE,ROGER G.			VICE PRESIDENT SECRETARY	74 PR
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		67 PR
EL PASO NATURAL GAS CO	TIMKO,STEPHEN			EXEC.VICE PRESIDENT TREASURER	74 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		74 PR
EL PASO NATURAL GAS CO	SMITH,ROBERT E.			PRESIDENT	71 PR
EL PASO NATURAL GAS CO	OWENS,JESSE L.				67 71
EL PASO NATURAL GAS CO	NOEL,W.D.				67 PR
EL PASO NATURAL GAS CO	MELTZER,IRWIN S.				67 70
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				67 PR
EL PASO NATURAL GAS CO	LUCKETT,PAUL H. III			EXEC.VICE PRESIDENT	74 PR
EL PASO NATURAL GAS CO	HEITMILLER,RICHARD F.			CHAIR.OF EXEC.COMM.	68 69
EL PASO NATURAL GAS CO	HEFTLER,GEORGE				67 74
EL PASO NATURAL GAS CO	GREGORY,HARRY K.			VICE PRESIDENT	67 71
EL PASO NATURAL GAS CO	GOLDSTEIN,BUFORD J.				67 71
EL PASO NATURAL GAS CO	FAIN,HARRY M.				67 71
EL PASO NATURAL GAS CO	BOYKIN,R.GENE			VICE PRESIDENT	74 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		67 PR
EL PASO NATURAL GAS CO	BALL,WILLIAM				67 71
BECHTEL CORP.					
TENNECO INC.	BECHTEL,STEPHEN D.		58 69	PRESIDENT	
BECKER INDUSTRIES					
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR		73 PR
BEDFORD-STUYVESANT DEVEL.SERVICES					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		71 PR
BEECH ACCEPT. CORP.,WICHITA					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		69 PR
BEKER INDUSTRIES					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		
EL PASO NATURAL GAS CO	THURMAN,D.B.				
BEKINS CO.					
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
BELGIAN AMERICAN EDUCATIONAL FDN.INC					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
BELL & HOWELL CO.					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		73 PR
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
BELMONT PAPER BOX CO.					
CLINTON OIL CO.	BECKOFF,OSCAR		71 73	VICE PRESIDENT	
BENCAL CORP.					
SHELL OIL COMPANY	BLACK,J.B.		50 65		
BENEFIT TRUST LIFE INS. CO.					
UNION OIL CO. OF CALIF.	JACOBS,DONALD P.		73 PR		62 PR
BERGER KENT FUND,INC.					
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
BERKSHIRE FARM FOR BOYS					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		71 PR
BERTIE M. & JOHN W. DEMING FDN.					
MURPHY OIL CO.	DEMING,JOHN W.		50 PR		67 PR
BESSEMER SECURITIES CORP.					
TEXACO,INC.	PHIPPS,OGDEN		58 PR	CHAIR.OF BOARD	58 PR
BESSEMER TRUST CO.					
TEXACO,INC.	PHIPPS,OGDEN		58 PR		46 PR
BEST FERTILIZERS COS.					
OCCIDENTAL PETROLEUM CORP.	BERRY,LOWELL W.		64 64	EXEC.VICE PRESIDENT	
BETHLEHEM STEEL CORP.					
STD OIL CO. OF INDIANA	WRIGHT,JOSEPH S.		66 PR		73 PR
CITIES SERVICE CO.	GATES,THOMAS S.		61 PR		
BETTER BUS. BUREAU OF MET. N.Y.,INC.					
MOBIL OIL CORPORATION	MOORE,FRED H.		61 66		
BETTER GOVT. ASSOC. OF CHICAGO					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		62 74
BETTY JANE REHABILITATION CENTER					
MARATHON OIL COMPANY	GRAHAM,ELMER A.	VICE PRESIDENT	73 PR		71 PR
BIG THREE INDUSTRIES,INC.					
TENNECO INC.	JUDD,ARDON B.		45 PR		60 PR
BILBY,THOMPSON,SHOENHAIR & WARNOCK					
EL PASO NATURAL GAS CO	WARNOCK,HAL C.			ATTORNEY	
EL PASO NATURAL GAS CO	THOMPSON,B.G. SR.			ATTORNEY	
EL PASO NATURAL GAS CO	THOMPSON,B.G. JR			ATTORNEY	
BILTMORE CO.					
CHAMPLIN PETROLEUM CO.	GERRY,E.T.				
BISCUITS BELIN-FRANCE					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		63 PR
BISON GAS CO.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 74
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 74
BITUMINOUS COAL OPERATORS ASSOC.					
STANDARD OIL CO. OF OHIO	BUCHANAN,DEWITT W. JR.		69 PR		
CONTINENTAL OIL CO.	CORCORAN,JOHN				66 PR
BELCO PETROLEUM CO	JOSEPH,MARK R.		69 PR		74 PR
BLACK & DECKER MFG. CO.					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
BLACK MOUNTAIN GAS CO.					
LONE STAR GAS CO.	CRAWFORD,R.E.		48 74	PRESIDENT	
BLACKWELL LAND CO.,INC.					
ASHLAND OIL, INC.	DOWNWARD.BRIAN S.		70 PR		
BLAIR & CO.					
FELMONT OIL CORP.	SULLIVAN,JAMES J.		49 PR		
BLAW-KNOX CO.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		61 68
BLUE CROWN PETROLEUMS LTD.					
DELHI INTERNATIONAL OIL CORP	SMITH,W.C.	VICE-CHAIR.OF BOARD	64 PR		70 PR
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		70 PR
DELHI INTERNATIONAL OIL CORP	MILLER,N.C.	PRESIDENT	70 PR		70 PR
BLUE CROWN,INC.					
DELHI INTERNATIONAL OIL CORP	SMITH,W.C.	VICE-CHAIR.OF BOARD	64 PR		70 PR
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		70 PR
DELHI INTERNATIONAL OIL CORP	MILLER,N.C.	PRESIDENT	70 PR		70 PR
BLYTH EASTMAN DILLON & CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR	PRESIDENT CHIEF EXEC.OFFICER	
GEN AMER. OIL CO. OF TEXAS	CONLEY,PAUL A.			CHAIR.OF BOARD	72 PR
BMA CAPITAL CORP.					
CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
BMA CORP.					
PHILLIPS PETROLEUM CO.	WESCOE,W.CLARKE,DR.		64 PR		65 70
CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
BMA REAL ESTATE CORP.					
CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
BOARD OF TRADE,METROPOLITAN TORONTO					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR	PRESIDENT	50 PR
BOATMEN'S NATL BANK OF ST.LOUIS					
MONSANTO COMPANY	HOCHWALT,CARROLL A.	VICE PRESIDENT	49 64		
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
BOEING CO.					
STANDARD OIL CO.OF CALIF.	PIGGOTT,CHARLES M.				
STANDARD OIL CO.OF CALIF.	ALLEN,WILLIAM M.				
BONITO PIPELINE CO.					
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		72 PR
BOC-KERR OIL & GAS CORP.					
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			73 PR
BORDEN CO.					
CHAMPLIN PETROLEUM CO.	BROWN,C.C.				
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72		
BORG-WARNER CORP.					
MONSANTO COMPANY	PALMER,HOWARD L.		72 PR		
BOSTON CO.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		64 67
SHELL OIL COMPANY	SPAGHT,M.E.		53 PR		
CONTINENTAL OIL CO.	MCLEAN,JOHN G.				70 74
BOSTON SAFE DEPOSIT & TRUST CO.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		53 67
BOTSWANA RST LTD.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
BOVAIRD SUPPLY CO.					
PENNZOIL CO.	BOVAIRD,W.J.		72 PR	PRESIDENT	64 PR
PENNZOIL CO.	BOVAIRD,DAVIS D.		68 68		64 PR
BOVAIRD,INC.					
PENNZOIL CO.	BOVAIRD,W.J.		72 PR		64 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PENNZOIL CO.	BOVAIRD,DAVIS O.		68 68		64 PR
BOWATERS MERSEY PAPER CO.					
UNION TEXAS PETROLEUM	GRAHAM,KATHARINE		73 PR		
UNION TEXAS PETROLEUM	BEEBE,FREDERICK S.		62 73		
BOWDOIN COLLÈGE,BD. OF OVERSEERS					
EXXON CORP.	PETERSON,MARTHA		74 PR		74 74
BOWERY SAVINGS BANK					
UNION TEXAS PETROLEUM	TROWBRIDGE,ALEXANDER B.		68 PR	TRUSTEE	
BOY SCOUTS OF AMER.					
STANDARD OIL CO. OF OHIO	ROSS,JOHN L.	SR.VICE PRESIDENT	70 PR		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
BOY SCOUTS OF AMER.,EXEC. BD.					
STANDARD OIL CO. OF OHIO	ELLIOTT,SAMUEL H.		49 66		
BOY SCOUTS OF AMER.,GREATER N.Y.CL					
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR		
BOY SCOUTS OF AMER.,NATL ADVIS.BD.					
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
BOY SCOUTS OF AMER.,NATL.CAP.AREA CL					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		62 73
BOYS CLUB OF AMERICA					
STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR		64 PR
CONTINENTAL OIL CO.	PACE,FRANK,JR.				56
BOYS CLUB OF DENVER					
HAMILTON BROTHERS,INC.	HAMILTON,FERRIS F.	PRESIDENT	69 PR		70 PR
FOREST OIL CORP.	DORN,CLAYTON G.	PRESIDENT	64 PR		64 PR
BOYS CLUBS OF BOSTON					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		73 PR
BOYS CLUBS OF DETROIT					
STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR		42 PR
BOYS INC. OF AMERICA					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
BP ALASKA EXPLORATION INC.					
STANDARD OIL CO. OF OHIO	CAZALET,PETER G.		73 PR		
BP ALASKA,INC.					
STANDARD OIL CO. OF OHIO	ROSS,JOHN L.	SR.VICE PRESIDENT	70 PR		71 PR
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		
STANDARD OIL CO. OF OHIO	CAZALET,PETER G.		73 PR		
BP CANADA LTD.					
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
STANDARD OIL CO. OF OHIO	CAZALET,PETER G.		73 PR		
STANDARD OIL CO. OF OHIO	ADAM,ROBIN W.		72 PR		
BP DEVELOPMENT NORTH AMER.INC.					
STANDARD OIL CO. OF OHIO	CAZALET,PETER G.		73 PR		
BP EXPLORATION CO. LTD.					
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		
BP NORTH AMERICA,INC.					
STANDARD OIL CO. OF OHIO	CAZALET,PETER G.		73 PR	PRESIDENT	
BP PETROLEUM DEVELOPMENT LTD.					
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		
BP TRADING LTD.					
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR	MANAGING DIRECTOR	
STANDARD OIL CO. OF OHIO	ADAM,ROBIN W.		72 PR		
BP(FAR EAST)LTD.					
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		
STANDARD OIL CO. OF OHIO	ADAM,ROBIN W.		72 PR		
BRADFORD CLUB					
FOREST OIL CORP.	CLEMENS,EDWIN	VICE PRESIDENT TREASURER	66 PR		70 PR
BRADFORD COMPUTER & SYSTEMS					
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		68 PR
BRADFORD HOSPITAL					
FOREST OIL CORP.	WOLFE,JAMES D.		64 73		64 72
BRADISH JOHNSON CO.,LTD.					
EXCHANGE OIL AND GAS CORP.	PHILLIPS,NATHANIEL P.				64 PR
BRADLEY UNIVERSITY					
EXXON CORP.	FRANKLIN,WILLIAM H.		69 PR		69 73
BRANIFF AIRWAYS,INC.					
APCO OIL CORP.	MCCOLLUM,L.FRANKLIN,JR.		72 PR		69 PR
BRASCAN LTD.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		47 PR
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		57 74
BRISTOL-MYERS CO.					
CHAMPLIN PETROLEUM CO.	EVANS,J.H.				
BRITANNIC ESTATES LTD.					
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		
BRITISH ASSETS TRUST LTD					
PENNZOIL CO.	GAMMELL,JAMES G.S.		68 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
BRITISH PETROLEUM CO.,LTD.					
STANDARD OIL CO. OF OHIO	STRATHALMOND,LORD		69 72		
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		
BRITISH PETROLEUM(OVERZEE)B.V.					
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		
STANDARD OIL CO. OF OHIO	ADAM,ROBIN W.		72 PR		
BRITISH STEEL CORP.					
AMERADA HESS CORP.	LITTMAN,MARK,Q.C.		73	DEPUTY CHAIRMAN	
BRITISH TIMKEN					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		59 73
BRITISH-NORTH AMERICAN COMMITTEE					
EXXON CORP.	CAMPBELL,NICHOLAS J.		65 66		72 73
BROADWAY-HALE STORES,INC.					
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
BROOK TARPAULIN CO.					
MURPHY OIL CO.	O'CONNOR,J.A. JR.		55 PR		50 PR
BROOKINGS INST.					
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72	TRUSTEE	64 PR
EXXON CORP.	BRISCO,MILO M.		66 72		71 72
BROOKLINE INSTRUMENT CO.					
CITIES SERVICE CO.	BAM,FOSTER		73 PR		
BROOKLYN INST. OF ARTS AND SCIENCES					
MOBIL OIL CORPORATION	RIORDAN,JAMES	SR.VICE PRESIDENT	69 PR	CHAIR.OF BOARD	
BROOKLYN SAVINGS BANK					
MOBIL OIL CORPORATION	RIORDAN,JAMES	SR.VICE PRESIDENT	69 PR	TRUSTEE	
BROOKLYN-CUMBERLAND MEDICAL CENTER					
MOBIL OIL CORPORATION	RIORDAN,JAMES	SR.VICE PRESIDENT	69 PR	TRUSTEE	
BROWN & ROOT, INC.					
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR	CHAIR.OF BOARD	
BROWN BROS.HARRIMAN & CO.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR	PARTNER	
CHAMPLIN PETROLEUM CO.	LOVETT,R.A.			PARTNER	
CHAMPLIN PETROLEUM CO.	HARRIMAN,E.R.			PARTNER	
CHAMPLIN PETROLEUM CO.	GERRY,E.T.			PARTNER	
BROWN FDN.,INC.					
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		51 PR
BROWN FOREST INDUSTRIES					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		56 69

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
BROWN HARRIMAN & INTNL. BANKS LTD.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		68 PR
BROWN,WOOD,FULLER,CALOWELL & IVEY					
CITIES SERVICE CO.	FOSTER,STANHOPE		43 66	ATTORNEY	
BROWNING-FERRIS INDUSTRIES,INC.					
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.				73 PR
BRUNSWICK-CORP.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
BRUSH BERYLLIUM CO.					
DIAMOND SHAMROCK OIL & GAS	SHERWIN,JOHN		69 73		
BUCKEYE PIPE LINE CO.					
SOUTHWSTRN OIL & REFINING	PATTERSON,GEORGE S.		70 70		
BUFFALO BILL HISTORICAL MUSEUM					
STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR	TRUSTEE	66 PR
BUILDERS RESOURCES CORP.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		64 70
BUKA MINERALS N.L.					
GEN AMER. OIL CO. OF TEXAS	SWESNIK,ROBERT M.	VICE-CHAIR.OF BOARD	64 PR		71 PR
BULLETIN OF ATOMIC SCIENTISTS					
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 73
BULLOCK FUND LTD.					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				54
BURLINGTON NORTHERN,INC.					
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
BURMAH OIL & GAS CO.					
BURMAH OIL INC.	THOMPSON,W.H.		74 PR		
BURMAH OIL TANKERS LTD.					
BURMAH OIL INC.	ROBERTS,M.J.	PRESIDENT	72 PR		
BURMAH OIL INC.	KULUKUNDIS,E.J.		73 PR	PRESIDENT	
BURMAH OIL TRADING LTD.					
BURMAH OIL INC.	ROBERTS,M.J.	PRESIDENT	72 PR		
BUS.COUNCIL FOR INTNL. UNDERSTANDING					
MOBIL OIL CORPORATION	MCGHEE,GEORGE C.		69 PR	CHAIR.OF BOARD	
BUSINESS COMM.FOR THE ARTS					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		72 PR
BUSINESS COUNCIL					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD	46 PR		67 68

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		CHIEF EXEC.OFFICER			
MOBIL OIL CORPORATION	BORCH,FRED J.		73 PR	CHAIR.OF BOARD	
EXXON CORP.	LEARSON,T. VINCENT		69 PR		72 74
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		67 69
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		70 73
EXXON CORP.	HAIDER,MICHAEL L.		59 69		67 69
EXXON CORP.	CROSS,BERT S.		67 74		67 73
BUSINESS DEVEL. CORP. OF KY.					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
BUSINESS MEN'S ASSUR.CO.OF AMER.					
CHAMPLIN PETROLEUM CO.	GRANT,W.D.			CHAIR.OF BOARD CHIEF EXEC.OFFICER	
BUSINESS ROUNDTABLE					
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		73 PR
BUTLER,MILLER&LENTS,LTD.,CONSULT.ENG					
PANHANDLE ESTRN PIPE LN.CO	LENTS,MAX R.		71 PR	CHAIR.OF EXEC.COMM.	
BYRD FDN.					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR		
C.H.SPRAGUE & CO.,BOSTON,MASS.					
COMMONWEALTH OIL REFINING	WALSTROM,JOHN A.		67 PR		
C.I. REALTY INVESTORS					
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72	TRUSTEE	
C.I.M.					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			62 65
C.I.T. FINANCIAL CORP.					
MOBIL OIL CORPORATION	SCHMIDT,HERMAN J.	VICE-CHAIR.OF BOARD EXEC.VICE PRESIDENT	57 PR		PR
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
C.W. TRANSPORT CO.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		55 PR
CABLE,MCDANIEL,BOWIE & BOND					
CROWN CENTRAL PETROL CORP	MCDANIEL,JOHN S. JR.	GENERAL COUNSEL	55 PR	ATTORNEY PARTNER	
CABRI PIPE LINE LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
CAHILL,GORDON & REINDEL					
APCO OIL CORP.	DAUM,F.ARNOLD		73 PR	PARTNER	
CALIF. CASUALTY & LIFE INS. CO.					
PENNZOIL CO.	JOHNSON,LELAND F.		68 PR		72 PR
CALIF. CHAMBER OF COMMERCE					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
CALIF. GAS PRODUCERS ASSOC.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR	PRESIDENT	61 PR
CALIF. PACKING CORP.					
STANDARD OIL CO.OF CALIF.	LUCKS,ROY G.				47 70
CALIF.CAS.INDEMN.EXCH.(ADV. BD)					
PENNZOIL CO.	JOHNSON,LELAND F.		68 PR		62 PR
CALIF.CASUALTY & FIRE INS. CO.					
PENNZOIL CO.	JOHNSON,LELAND F.		68 PR		73 PR
CALIF.CASUALTY INS. CO.					
PENNZOIL CO.	JOHNSON,LELAND F.		68 PR		67 PR
CALIF.INST. FOR CANCER RESEARCH					
OCCIDENTAL PETROLEUM CORP.	GROMAN,ARTHUR	ATTORNEY	57 PR		69 PR
CALIF.INST.OF TECHNOLOGY					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	7 PR
KERR-MCGEE CORP.	JORGENSEN,EARLE M.		67 PR	TRUSTEE	65 PR
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR	TRUSTEE	
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		70 PR
CONTINENTAL OIL CO.	MCLEAN,JOHN G.			TRUSTEE	71 74
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.			TRUSTEE	67
CALIFORNIA STATE CHAMBER OF COMMERCE					
MONSANTO COMPANY	HOOVER,ROBERT JR.		58 69		
CALTEX PETROLEUM CORP.					
STANDARD OIL CO.OF CALIF.	LENZEN,T.L.				61 70
STANDARD OIL CO.OF CALIF.	KELLER,G.M.	VICE-CHAIR.OF BOARD			69 PR
STANDARD OIL CO.OF CALIF.	HAYNES,J.T.	CHAIR.OF BOARD			66 69
STANDARD OIL CO.OF CALIF.	GREY,J.R.	PRESIDENT			70 73
CAMBRIDGE ROYALTY CO.					
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			73 PR
CONTINENTAL OIL CO.	TARKINGTON,A.W.	CONSULTANT			72 PR
CAMERON FINANCIAL CORP.					
ASHLAND OIL, INC.	ROSS,F.H. JR.		71 PR		
CAMERON IRON WORKS,INC.					
TENNECO INC.	ALLEN,HERBERT		64 74	CHAIR.OF BOARD	PR
MONSANTO COMPANY	BRYAN,ANTHONY J.A.	VICE PRESIDENT	71 73		
CAMPBELL RED LAKE MINES,LTD.					
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR	CHAIR.OF BOARD	
CAMPBELL SOUP CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PHILLIPS PETROLEUM CO.	PIEL,WILLIAM JR.		64 PR		71 PR
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		62 PR
CITIES SERVICE CO.	GATES,THOMAS S.		61 PR		
CAMPBELL-TAGGART,INC.					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR		
CAMPUS SERVICES,INC.					
FOREST OIL CORP.	CASEY,MARTIN F.	CHAIR.OF EXEC.COMM. VICE PRESIDENT	64 PR		71 72
CANAD.AMER.COMM.OF THE NL.PLAN.ASSOC					
EXXON CORP.	WHITE,JOHN R.		60 71	CHAIR.OF BOARD	70 70
CANADA LIFE ASSURANCE CO.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		54 PR
CANADA LIFE INSURANCE CO.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		69 PR
CANADA PERMANENT MORTGAGE CO.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		66 69
GULF OIL CORPORATION	LOUGHNEY,E.D.		64 70		60 71
CANADA PERMANENT TRUST CO.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		66 69
CANADAIR,LTD.					
UNION TEXAS PETROLEUM	NOTMAN,J.GEOFFREY		58 73		
CANADIAN EXPORT GAS & OIL,LTD.					
EL PASO NATURAL GAS CO	SCHNEIDER,FRANZ		57 PR		
CANADIAN GOVT.EXPORT ADVIS.COUNCIL					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		67 68
CANADIAN GYPSUM CO.LTD.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		61 PR
CANADIAN IMPERIAL BANK OF COMMERCE					
UNION OIL CO. OF CALIF.	HUNT,R.O.		63 PR		63 PR
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		54 PR
CITIES SERVICE CO.	FRAME,ALFRED P.	SR.VICE PRESIDENT	55 64		
CANADIAN IMPERIAL BOARD OF COMMERCE					
UNION TEXAS PETROLEUM	NOTMAN,J.GEOFFREY		58 73	CHAIR.OF BOARD	
CANADIAN NIAGARA POWER CO.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR	CHAIR.OF BOARD	68 PR
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR	PRESIDENT	66 PR
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		62 PR
CANADIAN POTASH EXPORT ASSN OF CAN.					
PENNZOIL CO.	ATWOOD,G.E.		72 PR		73 73

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CANADIAN POTASH PRODUCERS ASSOC.					
PENNZOIL CO.	MORRIS,W.P.		69 72		71 73
PENNZOIL CO.	ATWOOD,G.E.		72 PR		73 PR
CANADIAN TIMKEN,LTD.					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		36 PR
CANADIAN UTILITIES LTD.,EDMONTON					
HUSKY OIL LIMITED	MILNER,HORATIO RAY QC		60 64	CHAIR.OF BOARD	
CANADIAN WESTERN NAT. GAS CO,CALGARY					
HUSKY OIL LIMITED	MILNER,HORATIO RAY QC		60 64		
CANADIAN-AMERICAN COMMITTEE					
EXXON CORP.	CAMPBELL,NICHOLAS J.		65 66		72 73
CANTEY,HANGER,GOOCH,CRAVENS,&SCARBOR					
TENNECO INC.	HANGER,R.K.		45 69	PARTNER	64 69
CAPITAL FOR TECHNOLOGY CORP.					
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR		63 71
CAPITAL NATIONAL BANK IN AUSTIN,TEX.					
SHELL OIL COMPANY	COOK,C.W.		73 PR		
DELHI INTERNATIONAL OIL CORP	DENIUS,FRANK W.	ATTORNEY	64 PR		
CAPITAL NATL BANK					
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.				66 PR
APCO OIL CORP.	MCCOLLUM,L.FRANKLIN,JR.		72 PR	VICE PRESIDENT	65 PR
CAPITAL NATL BANK,HOUSTON					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		66 PR
CAPITOL EXCH. FUND,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		65 71
CAPITOL HILL STATE BANK & TRUST CO.					
KERR-MCGEE CORP.	SEALE,A.T.F.	FMR VICE PRESIDENT	65 PR		65 PR
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				65 PR
CAPITOL RADIO ENGINEERING INST.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		62 66
CAPITOL,INC.					
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		68 PR
CARBORUNDUM CO.					
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR		55 PR
EXXON CORP.	LEARSON,T. VINCENT		69 PR		69 74
CARDINAL PETROLEUM CO.,BILLINGS					
ASHLAND OIL, INC.	ERICKSON,EUGENE		71 PR		
CARIBBEAN ATLANTIC AIRLINES					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
COMMONWEALTH OIL REFINING	MOSCOSO,TEODORO		64 73		
CARIBBEAN EQUITY CORP.					
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR	CHAIR.OF BOARD	69 PR
CARIBBEAN FED. SAVINGS & LOAN					
COMMONWEALTH OIL REFINING	CAMERO,SERGIO		74 PR		
CARIBBEAN FINANCES CO.,INC.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
CARIBE MOTORS CORP.					
COMMONWEALTH OIL REFINING	REXACH,HENRY C.		70 73		
CARNATION CO.					
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
CARNEGIE CORPORATION					
EXXON CORP.	SHEPARD,DAVID A.		51 66		64 65
CARNEGIE ENDOWMENT FOR INTNL.PEACE					
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.			TRUSTEE	71
CARNEGIE FDN.FOR THE ADVMT.OF TEACH.					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	
CARNEGIE HERO FUND COMMISSION					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
CARNEGIE INST. OF TECHNOLOGY					
STANDARD OIL CO. OF OHIO	SWENSRUD,SIDNEY A.	FMR VICE PRESIDENT	58 70		
STD OIL CO. OF INDIANA	JOHNSTON,LOGAN T.		63 71	TRUSTEE	61 PR
CARNEGIE INSTITUTE					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR	TRUSTEE	
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR	PRESIDENT	68 PR
CARNEGIE LIBRARY OF PITTSBURGH					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR	PRESIDENT	68 PR
CARNEGIE MELLON UNIV.					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR	TRUSTEE	60 PR
STD OIL CO. OF INDIANA	JOHNSTON,LOGAN T.		63 71	TRUSTEE	61 PR
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR	TRUSTEE	PR
GULF OIL CORPORATION	LEE,JAMES E.		73 PR	TRUSTEE	73 PR
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		62 72
CARRATH MORTGAGE CO.					
DIAMOND SHAMROCK OIL & GAS	BARNES,J. DAVID		71 PR		
CARRIERS & GENERAL CORP.					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				53
CARSON PIRIE SCOTT & CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EXXON CORP.	FRANKLIN,WILLIAM H.		69 PR		69 72
CARTER HAWLEY HALE STORES,INC.					
UNION OIL CO. OF CALIF.	HALE,PRENTIS C.		56 PR	CHAIR.OF EXEC.COMM.	
UNION OIL CO. OF CALIF.	DI GIORGIO,ROBERT	CHAIR.OF BOARD CHIEF EXEC.OFFICER	58 PR		57 PR
CASCIA HALL,TULSA					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		70 PR
CASE INSTITUTE OF TECH.					
STANDARD OIL CO. OF OHIO	GLENNAN,T.KEITH		58 58	FMR PRESIDENT	
CASE WESTERN RESERVE UNIV.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		67 73
MOBIL OIL CORPORATION	BORCH,FRED J.		73 PR	TRUSTEE	
CASE-POMEROY OIL CORP.					
FELMONT OIL CORP.	WALKER,LYNN	PRESIDENT CHIEF OPER.OFFICER	66 PR		69 PR
FELMONT OIL CORP.	RICHARDS,H. AMES JR.	SR.VICE PRESIDENT	67 PR		69 PR
FELMONT OIL CORP.	CASE,HADLEY	CHAIR.OF BOARD CHIEF EXEC.OFFICER	51 PR		69 PR
CASE,POMEROY & CO.,INC.					
FELMONT OIL CORP.	WALKER,LYNN	PRESIDENT CHIEF OPER.OFFICER	66 PR		74 PR
FELMONT OIL CORP.	SALLEE,GEORGE J.		58 PR		
FELMONT OIL CORP.	CASE,HADLEY	CHAIR.OF BOARD CHIEF EXEC.OFFICER	51 PR		41 PR
CASTROL OILS INC.					
BURMAH OIL INC.	DONAHUE,M.J.		71 PR	PRESIDENT	
CATALINA OPERATIONS CO.					
TEXACO,INC.	WRIGLEY,WILLIAM		74 PR		58 PR
CATALINA ROCK & RANCH CO.					
TEXACO,INC.	WRIGLEY,WILLIAM		74 PR		64 PR
CATERPILLAR TRACTOR CO.					
SHELL OIL COMPANY	BLACKIE,WILLIAM		64 PR		
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
EXXON CORP.	LEARSON,T. VINCENT		69 PR		73 74
EXXON CORP.	FRANKLIN,WILLIAM H.		69 PR	PRESIDENT CHAIR.OF BOARD	69 74
CATHAM COLLEGE,BD.OF TRUSTEES					
EXXON CORP.	PETERSON,MARTHA		74 PR		74 74
CATHEDRAL OF ST. JOHN THE DIVINE					
TEXACO,INC.	MCGILL,WILLIAM J.		73 PR		70 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CATSKILL CTR.FOR CONSERV. & DEVEL.					
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR		68 PR
CCA'S EMPLOYEE RETIREMENT PLAN					
FARMLAND INDUSTRIES,INC.	YOUNG,HOMER	PRESIDENT	64 67		64 65
CELANESE CORP.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
CHAMPLIN PETROLEUM CO.	PLACE,J.B.M.	CHAIR.OF BOARD PRESIDENT			
CELULOSA DE CHIHUAHUA,S.A.					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		
CEN.MIDWESTERN REG. EDUC. LAB.,INC.					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
CENTENARY COLLEGE					
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR	TRUSTEE	68 PR
CENTENNIAL LIQUOR STORES,INC.					
ASHLAND OIL, INC.	VANDEVEER,JAMES W.		64 PR		
CENTER FOR INTER-AMERICAN RELATIONS					
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
EXXON CORP.	WHITE,JOHN R.		60 71		67 70
EXXON CORP.	COLLADO,EMILIO G.		60 PR	CHAIR.OF BOARD	67 74
CENTER FOR INTNL BUSINESS					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR		73 PR
CENTRAL & SO. WEST CORP.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		51 71
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR		71 PR
CENTRAL AGUIRRE SUGAR CO.					
COMMONWEALTH OIL REFINING	RICE,EUGENE F.		55 67		
CENTRAL ALUMNI FDN.,EDMOND,OKLA.					
PHILLIPS PETROLEUM CO.	ZEMAN,WILLIAM J.	VICE PRESIDENT GENERAL COUNSEL	64 71		70 71
CENTRAL CERTIFICATE SERVICE					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		72 73
CENTRAL FARMERS FERTILIZER CO.					
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		64 66
CENTRAL INSTITUTE FOR THE DEAF					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
CENTRAL MICHIGAN UNIV.					
TOTAL LECNARD,INC.	MORROW,E. ALLAN	VICE PRESIDENT	55 70		64 70

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CENTRAL NATL BANK OF CLEVELAND					
STANDARD OIL CO. OF OHIO	WOLF,ALFRED C.	SR.VICE PRESIDENT	50 68		
STANDARD OIL CO. OF OHIO	STEVENS,DONALD G.	SR.VICE PRESIDENT	68 PR		
DIAMOND SHAMROCK OIL & GAS	TILLMAN,ARTHUR B.		64 73		
CENTRAL NATL CORP.					
APCO OIL CORP.	ROSS,ARTHUR		68 PR	EXEC.VICE PRESIDENT MANAGING DIRECTOR	
CENTRAL PENN NL BK OF PHILADELPHIA					
PHILLIPS PETROLEUM CO.	FORTENBAUGH,SAMUEL B.JR.		64 68		64 68
CENTRAL PLAINS ENTERPRISES,INC.					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 70
CENTRAL SERVICE CORP.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR		69 PR
CENTRAL STATE BANK,WICHITA					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		61 PR
CENTRAL SUFFOLK HOSPITAL ASSOC.					
CITIES SERVICE CO.	O'BRIEN,HENRY L.	GENERAL COUNSEL	40 71		
CENTRAN BANCSHARES,INC.					
STANDARD OIL CO. OF OHIO	STEVENS,DONALD G.	SR.VICE PRESIDENT	68 PR		
CERES CABLE T.V.					
BEACON OIL CO.	MARCONI,W.L.	PRESIDENT			73 PR
CERES DEVELOPMENT CORP.					
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		71 PR
CERTAIN-TEED PRODUCTS CORP.					
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR		66 PR
CFW CONSTRUCTION CO.					
SOUTHLAND OIL CO.	CARTER,WILLIAM R.		64 64	PRESIDENT	
CHAFFE,MCCALL,PHILLIPS,TOLER &SARPY					
EXCHANGE OIL AND GAS CORP.	PHILLIPS,NATHANIEL P.			ATTORNEY	
CHAMBER OF COMMERCE					
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		70 PR
CHAMBER OF COMMERCE OF SAN FRANCISCO					
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71	MANAGING DIRECTOR	
CHAMBER OF COMMERCE OF THE U.S.					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
EXXON CORP.	WRIGHT,MYRON A.		58 66		64 65
EXXON CORP.	PIERCY,GEORGE T.		66 PR		70 70
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		66 PR
AMERADA HESS CORP.	HEARIN,ROBERT M.		69		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CHAMPION INTERNATIONAL CORP.					
MONSANTO COMPANY	ANDERSON,DILLON		60 74		
CHAMPION INTERNATIONAL,INC.					
TENNECO INC.	HALL,JOSEPH B.		63 70		PR
CHAMPLIN PETROLEUM CO.					
CROWN CENTRAL PETROL CORP	OTTO,FREDERICK M.		70 PR	VICE PRESIDENT	
CHARLES A. FRUEAUFF FDN.,INC.					
CITIES SERVICE CO.	FARRELL,JAMES P.		66 PR		
CHARLES RIVER CIVIC FDN.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		63 72
CHARLES RIVER CIVIC TELEVISION,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		63 72
CHARTER COMPANY					
BURMAH OIL INC.	THOMPSON,W.H. JR.	FMR PRESIDENT FMR VICE PRESIDENT	71 74		73
BURMAH OIL INC.	THOMPSON,W.H.		74 PR		
BURMAH OIL INC.	LORTSCHER,F.D.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	70 72		71 73
CHARTER NATIONAL LIFE INSURANCE CO.					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
CHARTER NEW YORK CORP.					
SHELL OIL COMPANY	BRIDGES,H.	PRESIDENT CHIEF EXEC.OFFICER	70 PR		
CHAMPLIN PETROLEUM CO.	MITCHELL,H.B.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
CHASE INTERNATIONAL INVESTMENT CORP.					
UNION TEXAS PETROLEUM	MEYER,ANDRE		67 71		
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
CHASE MANHATTAN BANK					
UNION TEXAS PETROLEUM	SCHINN,RICHARD R.		73 PR		
UNION TEXAS PETROLEUM	CONNOR,JOHN T.	FMR PRESIDENT CHAIR.OF BOARD	67 PR		
CHASE MANHATTAN BANK,N.A.					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		60 PR
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72		69 72
SHELL OIL COMPANY	COOK,C.W.		73 PR		
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		66 69
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		71 74
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		65 70
DIAMOND SHAMROCK OIL & GAS	DILWORTH,J. RICHARDSON		69 73		
CROWN CENTRAL PETROL CORP	MCNAIR,MALCOLM		72 PR	SR.VICE PRESIDENT	
CHASE MANHATTAN CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		69 PR
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72		69 72
SHELL OIL COMPANY	COOK,C.W.		73 PR		
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		71 74
CHEM SYSTEMS,INC.					
APCO OIL CORP.	WELLS,C.T.		66 PR		69 72
CHEMICAL BANK					
UNION TEXAS PETROLEUM	NICHOLS,C.W. JR.		55 PR		
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		60 73
TEXACO,INC.	LONG,AUGUSTUS C.	CHAIR.OF EXEC.COMM.	50 PR		65 70
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		74 PR
SHELL OIL COMPANY	SPAGHT,M.E.		53 PR		
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
EXXON CORP.	PIERCY,GEORGE T.		66 PR		71 74
EXXON CORP.	LEARSON,T. VINCENT		69 PR		71 74
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72	CHAIR.OF EXEC.COMM.	
CHEMICAL BANK OF N.Y. TRUST CO.					
EXXON CORP.	LEARSON,T. VINCENT		69 PR		69 70
CITIES SERVICE CO.	ROMNES,H.I.		67 73		
CHEMICAL BANK,LOWER MANHTN.ADVIS.BD.					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR	CHAIR.OF BOARD	
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR		
CHEMICAL FUND,INC.					
EL PASO NATURAL GAS CO	SCHNEIDER,FRANZ		57 PR		
CHEMICAL GROUP					
MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR		
CHEMICAL INDUSTRY COUNCIL OF N.Y.					
UNION TEXAS PETROLEUM	BARNARD,JOHN H.	VICE PRESIDENT	71 72		
CHEMICAL INTNL. BANKING CORP.					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		59 72
CHEMICAL INTNL. FINANCE LTD.					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		59 72
CHEMICAL NEW YORK CORP.					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		68 73
TEXACO,INC.	HARRIS,HENRY U.		35 73		40 70
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		74 PR
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
EXXON CORP.	PIERCY,GEORGE T.		66 PR		71 74
EXXON CORP.	LEARSON,T. VINCENT		69 PR		71 74
CHAMPLIN PETROLEUM CO.	PLACE,J.B.M.	CHAIR.OF BOARD			

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		PRESIDENT			
CHEMNOR CORP.					
DIAMOND SHAMROCK OIL & GAS	DE NORA,VITTORIO		73 PR		
CHEMTECK CORP.					
APCO OIL CORP.	MCDOWELL,W.E.	VICE PRESIDENT	72 PR		72 74
CHEROKEE CO.					
PENNZOIL CO.	KERR,BAINE P.	GENERAL COUNSEL CHAIR.OF EXEC.COMM.	68 PR		55 PR
CHEROKEE FDN					
PHILLIPS PETROLEUM CO.	KEELER,W.W.	FMR CHAIR.OF BOARD	64 74		64 PR
CHEROKEE NATL HISTORICAL SOC.					
PHILLIPS PETROLEUM CO.	KEELER,W.W.	FMR CHAIR.OF BOARD	64 74		64 PR
CHESAPEAKE & OHIO RAILROAD CO					
STD OIL CO. OF INDIANA	KIMPTON,LAWRENCE A.		58 71		70 PR
CHICAGO ASSOC.OF COMMERCE & INDUSTRY					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		60 PR
STD OIL CO. OF INDIANA	YARRINGTON,BLAINE J.	EXEC.VICE PRESIDENT	70 PR		70 74
CHICAGO BANK OF COMMERCE					
STD OIL CO. OF INDIANA	MAY,L. CHESTER	VICE PRESIDENT	63 PR		74 PR
CHICAGO BRIDGE & IRON					
CLINTON OIL CO.	MILLER,DON P.		71 PR		
CHICAGO COUNCIL ON FOREIGN RELATIONS					
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR		72 PR
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		73 PR
CHICAGO MILWAUKEE CORP.					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		74 PR
CHICAGO NATL LEAGUE BALL CLUB,INC.					
TEXACO,INC.	WRIGLEY,WILLIAM		74 PR		56 PR
CHICAGO 21 CORP.					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		74 PR
CHICAGO,ROCK ISLAND&PACIFIC RAILROAD					
GEN AMER. OIL CO. OF TEXAS	MAYER,FREDERICK M.		PR		61 PR
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				55 67
CHIEFCO ENTERPRISES LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
CHIEFTAIN DEVELOPMENT CO.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR	PRESIDENT	
CHIEFTAIN EXPLOR.(UK) LTD.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
CHIEFTAIN INTNL INC.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
CHILDREN'S HOSPITAL OF PITTSBURGH					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		62 67
CHILDREN'S MEDICAL CENTER,TULSA					
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR	TRUSTEE	67 72
CHILDRENS HOME OF BRADFORD,PA.					
FOREST OIL CORP.	WOLFE,JAMES D.		64 73		70 71
CHILDRENS HOSPITAL,LOS ANGELES					
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
CHINA MEDICAL BOARD					
PHILLIPS PETROLEUM CO.	WESCOE,W.CLARKE,DR.		64 PR		64 PR
CONTINENTAL OIL CO.	BUEK,CHARLES				71 PR
CHOCTAW CORP.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		62 PR
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		62 PR
PENNZOIL CO.	COLEMAN,GEORGE L.		68 PR		62 PR
PENNZOIL CO.	BOVAIRD,W.J.		72 PR		73 PR
PENNZOIL CO.	BOVAIRD,DAVIS D.		68 68		62 73
CHRIS CRAFT CORP.					
PENNZOIL CO.	COLEMAN,GEORGE L.		68 PR		57 67
CHRYSLER CORP.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		62 68
DIAMOND SHAMROCK OIL & GAS	DILWORTH,J. RICHARDSON		69 73		
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.				58 69
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		58 72
CHUBB CORP.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
CHURCH & DWIGHT CO., INC.					
UNION TEXAS PETROLEUM	MINTON,HENRY M.		4 97	CHAIR.OF BOARD CHIEF EXEC.OFFICER	3
CIMARRON TELEVISION CO.					
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		65 70
CINCINNATI BELL TELEPHONE CO.					
TENNECO INC.	HALL,JOSEPH B.		63 70		PR
CINCINNATI GAS & ELECTRIC CO.					
STD OIL CO. OF INDIANA	JOHNSTON,LOGAN T.		63 71		72 72
CINCINNATI MILLING MACHINE CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
STD OIL CO. OF INDIANA	JOHNSTON,LOGAN T.		63 71		60 70
CITICORP					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74	PRESIDENT	
EXXON CORP.	GARVIN,CLIFFORD C. JR.				73 74
CITIES TRANSIT INC.					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		46 PR
CITIZEN NL BK OF HAMMOND,LA.					
LOUISIANA LAND & EXPLOR.	GRAHAM,FORD M.	CHAIR.OF EXEC.COMM.	60 PR		73 PR
LOUISIANA LAND & EXPLOR.	GRAHAM,FORD M.	CHAIR.OF EXEC.COMM.	60 PR		50 62
CITIZENS BANK					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		67 73
CITIZENS BANK OF ADA					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 72
CITIZENS BANK OF OKLA. CITY					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		72 PR
CITIZENS BUDGET COMMISSION					
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72	CHAIR.OF BOARD	
CITY BANK & TRUST CO.,JACKSON					
CLINTON OIL CO.	SMITH,JOHN J.		73 PR		63 PR
CITY NATL BANK,BEVERLY HILLS,CAL.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		62 71
CITY PRODUCTS CO.,CHICAGO					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71		
CIVIC PROGRESS INC.					
MONSANTO COMPANY	HANLEY,JOHN W.	PRESIDENT CHIEF EXEC.OFFICER	72 PR		
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		68 PR
CLAPP,SOMERVILLE,BLACK & HONEMANN					
CROWN CENTRAL PETROL CORP	EKIN,KENNETH H.		68 PR	ATTORNEY PARTNER	
CLARK ESTATES					
PANHANDLE ESTRN PIPE LN.CO	MAIN,CHARLES E.		44 70	FMR PRESIDENT	
MESA PETROLEUM COMPANY	NICOLAIS,MICHAEL A.		69 74	PRESIDENT	
CLARK,LADNER,FORTENBAUGH&YOUNG					
PHILLIPS PETROLEUM CO.	FORTENBAUGH,SAMUEL B.JR.		64 68	ATTORNEY PARTNER	
CLASSIC MOTORS INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		69 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CLAUSI-TOFC. INC.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		70 PR
CLAYTON FEDERAL SAVINGS & LOAN ASSN.					
MONSANTO COMPANY	SMITH,M.K. JR.		71 PR		
CLEVELAND AND PITTSBURG RAILROAD CO.					
DIAMOND SHAMROCK OIL & GAS	EVANS,RAYMOND F.		64 PR		
CLEVELAND CH. OF COMMERCE					
STANDARD OIL CO. OF OHIO	HARRIS,WADE N.		62 67		
CLEVELAND COUNCIL ON WORLD AFFAIRS					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
CLEVELAND ELECTRIC ILLUM. CO					
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		64 PR
CLEVELAND GOODWILL INDUSTRIES,INC.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
CLEVELAND INST. OF MUSIC.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
CLEVELAND INTNL PROG.,BD.OF TRUSTEES					
STANDARD OIL CO. OF OHIO	ELLIOTT,SAMUEL H.		49 66		
CLEVELAND TRUST CO.					
STANDARD OIL CO. OF OHIO	WHITEHOUSE,ALTON W.JR.	PRESIDENT	67 PR		70 PR
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
OCCIDENTAL PETROLEUM CORP.	VAIL,HERMAN L.	ATTORNEY	68 PR		
DIAMOND SHAMROCK OIL & GAS	HUGHES,JAMES A.	CHAIR.OF BOARD	64 PR		
DIAMOND SHAMROCK OIL & GAS	DE WINDT,E. MANDELL		69 PR		
CLEVELAND-CLIFFS IRON CO.					
STANDARD OIL CO. OF OHIO	WHITEHOUSE,ALTON W.JR.	PRESIDENT	67 PR		72 PR
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		71 PR
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72		
CLIFFORD,WARNKE,GLASS,MCILWAIN,FINNE					
PHILLIPS PETROLEUM CO.	CLIFFORD,CLARK M.		69 PR	ATTORNEY PARTNER	
CLINTON INTNL. CORP.					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		73 PR
CLINTON OIL CO.	WATSON,DAVID M.		67 73		71 73
CLINTON OIL CO.	WASZKOWSKI,HENRY JR.		73 73		73 73
CLINTON OIL CO.	VOLK,RICHARD W.	PRESIDENT CHIEF EXEC.OFFICER	73 PR		73 PR
CLINTON OIL CO.	UEDA,NORMAN Y. DR.		71 PR		73 74
CLINTON OIL CO.	SMITH,JOHN J.		73 PR		73 PR
CLINTON OIL CO.	MILLER,DON P.		71 PR		73 PR
CLINTON OIL CO.	LUSK,WILLIAM E.		63 73		70 73
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR		73 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CLINTON OIL CO.	GAMELSON,LYNDON		67 73		
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		73 PR
CLINTON OIL CO.	CRONIN,STEWART		70 71		70 71
CLINTON OIL CO.	CLINTON,REALTO P.	OWNER	63 73		70 73
CLINTON OIL CO.	BEDFORD,CHARLES F.		73 PR		73 PR
CLINTON OIL CO.	BECKOFF,OSCAR		71 73		71 73
CLINTON OIL CO.	AVERY,WILLIAM H.		71 73		70 73
CLOUD CLUB,BD. OF GOV.					
TEXACO,INC.	MCKINLEY,JOHN K.	PRESIDENT	71 PR		73 PR
CLOW CORP.					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		64 PR
CLUETT,PEABODY & CO.,INC.					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
CLUPAK					
AMERADA HESS CORP.	HAGERTY,HARRY C.		69		
CMI CORP. OKLA. CITY					
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				69 PR
CNA FINANCIAL CORP.					
STD OIL CO. OF INDIANA	LIVINGSTON,HOMER J.		56 70		50 70
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		67 70
CNA NUCLEAR LEASING,INC.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		69 71
CO-ORDINATING RESEARCH COUNCIL,INC					
PHILLIPS PETROLEUM CO.	THOMAS,R.W.	VICE PRESIDENT	64 64		64 64
COASTAL FISHERIES,INC.					
DELHI INTERNATIONAL OIL CORP	SEWELL,J.L.		64 PR		
COCA-COLA CO.					
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65	CHAIR.OF BOARD CHIEF EXEC.OFFICER	62
COE-KERR GALLERIES					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		69 PR
COLEMAN CO.,INC.					
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		
COLEMAN MEADOWS PATE DRUG CO.					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		44 PR
COLGATE-PALMOLIVE CO.					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				59
CITIES SERVICE CO.	ROMNES,H.I.		67 73		
COLLIER COUNTY CONSERVANCY					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
COLLINS RADIO CORP.					
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		
COLONIAL GROWTH SHARES,INC.					
EL PASO NATURAL GAS CO	SCHNEIDER,FRANZ		57 PR		
COLONIAL OIL CO.,INC.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		64 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 72
COLONIAL PIPELINE CO.					
UNION OIL CO. OF CALIF.	MCCONNOR,WILLIAM S.	SR.VICE PRESIDENT	73 PR		70 PR
COLORADO COLLEGE					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74	TRUSTEE	71 PR
COLORADO MINING ASSN.					
LION OIL CO.	TWEEDY,J.B.				64 PR
COLORADO NATIONAL BANK					
CHAMPLIN PETROLEUM CO.	TAYLOR,V.F. JR.				
COLORADO OUTWARD BOUND					
LION OIL CO.	TWEEDY,J.B.				64 71
HAMILTON BROTHERS,INC.	HAMILTON,FERRIS F.	PRESIDENT	69 PR		70 PR
COLORADO SCH.OF MINES RESEARCH FDN.					
MOBIL OIL CORPORATION	NELSON,THEODORE W.	EXEC.VICE PRESIDENT	70 PR	TRUSTEE	
COLORADO SPRINGS SYMPHONY ORCHESTRA					
LION OIL CO.	BROWN,T.P.				67 68
COLUMBIA BROADCASTING SYSTEM					
CHAMPLIN PETROLEUM CO.	LOVETT,R.A.				
CHAMPLIN PETROLEUM CO.	BROWN,C.C.				
COLUMBIA GAS SYSTEMS,INC.					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		62 69
COLUMBIA UNIV.					
TEXACO,INC.	MCGILL,WILLIAM J.		73 PR	PRESIDENT	70 PR
PHILLIPS PETROLEUM CO.	WESCOE,W.CLARKE,DR.		64 PR		69 PR
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	PRESIDENT TRUSTEE	
EXXON CORP.	PETERSON,MARTHA		74 PR	DEAN	74 74
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		67 69
CHAMPLIN PETROLEUM CO.	BROWN,C.C.			CHAIR.OF BOARD	
COMBUSTION ENGINEERING,INC.					
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		69 PR
COMM.FOR A NATL TRADE POLICY					
EXXON CORP.	MILBRATH,ROBERT H.	TRUSTEE	69 73		71 73

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
COMM.FOR A GREATER CALIF.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		69 PR
COMMERCIAL SOLVENTS CORP.					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		69 PR
COMMERCIAL UNION ASSUR. CO.LTD					
AMERADA HESS CORP.	LITTMAN,MARK,Q.C.		73		
COMMIS.ON MARINE SCI,ENGR,&RESOURCES					
EXXON CORP.	STRATTON,JULIUS A.		66 70	CHAIR.OF BOARD	69 69
COMMITTEE FOR ECONOMIC DEVELOPMENT					
UNION TEXAS PETROLEUM	BEEBE,FREDERICK S.		62 73	TRUSTEE	
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		74 PR
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72	TRUSTEE	70 73
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR	TRUSTEE	61 65
MOBIL OIL CORPORATION	MCGHEE,GEORGE C.		69 PR	TRUSTEE	
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69	TRUSTEE	
MOBIL OIL CORPORATION	BORCH,FRED J.		73 PR	VICE-CHAIR.OF BOARD	
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		73 PR
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		68 73
GULF OIL CORPORATION	DEAN,R.HAL		70 PR	TRUSTEE	73 PR
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	TRUSTEE	
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		72 73
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		67 67
EXXON CORP.	HAIDER,MICHAEL L.		59 69		65 69
EXXON CORP.	GARVIN,CLIFFORD C. JR.				71 74
EXXON CORP.	FRANKLIN,WILLIAM H.		69 PR		69 74
EXXON CORP.	COLLADO,EMILIO G.		60 PR		64 74
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		65 PR
CONTINENTAL OIL CO.	JONES,GILBERT E.			TRUSTEE	68 PR
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				56 72
COMMONWEALTH ASSURANCE CO.					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		67 67
COMMONWEALTH EDISON CO.					
STD OIL CO. OF INDIANA	WRIGHT,JOSEPH S.		66 PR		69 PR
COMMONWEALTH LOAN CORP.					
COMMONWEALTH OIL REFINING	CAMERO,SERGIO		74 PR		
COMMONWEALTH TELEPHONE CO.					
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR		
COMMUNICATIONS SATELLITE CORP.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
CHAMPLIN PETROLEUM CO.	PLACE,J.B.M.	CHAIR.OF BOARD PRESIDENT			
COMMUNITY BANK OF WARR ACRES					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		65 68
COMMUNITY BLOOD COUNCIL OF GRTR.N.Y.					
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		69 73
COMMUNITY FUND OF CHICAGO					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		62 70
COMMUNITY NATL BK OF OKLA. CITY					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 69
COMMUNITY SERV.BROADCAST.OF MID-AMER					
CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
COMMUNITY SERVICE SOC.					
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72	TRUSTEE	64 PR
COMP.MADERERA LA ESTRELLA DEL CARIB.					
DELHI INTERNATIONAL OIL CORP	SEWELL,J.L.		64 PR		
COMPAGNIE FRANCAISE DES PETROLES					
TOTAL LEONARD,INC.	FLAMAND,J.F.		66 69		
TOTAL LEONARD,INC.	DALEMONT,E.L.		55 70	MANAGING DIRECTOR	
COMPAGNIE GENERALI DE ELETTRICITA					
EXXON CORP.	COLONNA DI PALIANO,GUIDO		71 PR		72 74
COMPANIA OCCIDENTAL DE GAS,S.A.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		65 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		64 PR
EL PASO NATURAL GAS CO	SCEARCE,E.A.				64 66
EL PASO NATURAL GAS CO	RITTMANN,VIRGIL				64 64
EL PASO NATURAL GAS CO	PRIETO(LOPEZ),EDUARDO			PRESIDENT	64 PR
EL PASO NATURAL GAS CO	LOGAN,H.P.	VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	HARRIS,R.W.				66 72
EL PASO NATURAL GAS CO	DURAZO,JOSE ALBERTO			SECRETARY	64 PR
COMPASS FUNDS					
TENNECO INC.	HALL,JOSEPH B.		63 70		PR
COMPUTER MANAGEMENT CORP.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		71 PR
CONFERENCE BOARD,INC.					
UNION TEXAS PETROLEUM	TROWBRIDGE,ALEXANDER B.		68 PR	PRESIDENT	
UNION TEXAS PETROLEUM	CONNOR,JOHN T.	FMR PRESIDENT CHAIR.OF BOARD	67 PR	VICE-CHAIR.OF BOARD	
TEXACO,INC.	WILLIAMS, LANGBOURNE M.	HONORARY CHAIRMAN	58 PR		37 PR
MARATHON OIL COMPANY	PLATTS,JOHN H.		73 PR		
EXXON CORP.	CAMPBELL,NICHOLAS J.		65 66		72 73
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		71 PR
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
CONNECTICUT MUTUAL LIFE INSURANCE CO					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SHELL OIL COMPANY	GWINN,W.P.		66 PR		
CONOCO SUBSIDS.&AFFILIATES					
CONTINENTAL OIL CO.	HINSON,HOWARD H.	VICE PRESIDENT	58 66		58 66
CONSOL. FOODS CORP.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
CONSOLIDATED COAL					
CONTINENTAL OIL CO.	TARKINGTON,A.W.	CONSULTANT			66 PR
CONSOLIDATED EDISON CO. OF N.Y.					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR	TRUSTEE	
MONSANTO COMPANY	EATON,FREDERICK M.		47 PR		
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72		
CONSOLIDATED ELECTRONICS INDUSTRIES					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
CONTINENTAL OIL CO.	LAWRENCE,ARTHUR B.		69		36 69
CONSOLIDATED THERMOPLASTICS CO.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				66 68
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				68 71
EL PASO NATURAL GAS CO	PHARES,E.W.				68 PR
EL PASO NATURAL GAS CO	NOEL,W.D.				66 PR
EL PASO NATURAL GAS CO	MULLEN,T.M.			TREASURER	73 PR
EL PASO NATURAL GAS CO	MCINTYRE,C.E. III				67 68
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				66 PR
EL PASO NATURAL GAS CO	LUCKETT,PAUL H. III				68 70
EL PASO NATURAL GAS CO	KNIGHT,R.M.				66 PR
EL PASO NATURAL GAS CO	JOHNSON,V.A.				72 PR
EL PASO NATURAL GAS CO	HALLETT,R.F.				66 67
EL PASO NATURAL GAS CO	DART,J.W.				68 72
EL PASO NATURAL GAS CO	DALY,G.J.				66 72
EL PASO NATURAL GAS CO	CUCINA,V.R.				72 PR
EL PASO NATURAL GAS CO	CLEMENTS,O.R.				71 PR
EL PASO NATURAL GAS CO	BREWER,D.H.				66 68
EL PASO NATURAL GAS CO	BREHM,W.K.				72 72
EL PASO NATURAL GAS CO	ATCHESON,M.M.	VICE PRESIDENT	68 70		70 70
CONSOLIDATION COAL(DIV.OF CONOCO)					
GULF OIL CORPORATION	WYCKOFF,GEORGE W.		64 68		45 72
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.				
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71	HONORARY CHAIRMAN	
CONTINENTAL OIL CO.	KIRCHER,JOHN E.	PRESIDENT CHIEF OPER.OFFICER			67 69
CONTINENTAL OIL CO.	CORCORAN,JOHN			CHAIR.OF BOARD CHIEF EXEC.OFFICER	
CONSTELLATION INS. CO.					
TEXACO,INC.	HARRIS,HENRY U.		35 73		65 68
CONSUMERS INSURANCE AGENCY,INC.					
FARMLAND INDUSTRIES,INC.	TORELL,BYRON		64 73		64 66

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FARMLAND INDUSTRIES,INC.	PETERSON,ALBERT		64 66		64 66
FARMLAND INDUSTRIES,INC.	HOVEY,EDGAR C.		64 66		64 66
CONT.ILL.NATL.BK.&TRST.CO.OF CHICAGO					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		60 PR
STD OIL CO. OF INDIANA	YARRINGTON,BLAINE J.	EXEC.VICE PRESIDENT	70 PR		72 74
STD OIL CO. OF INDIANA	WRIGHT,JOSEPH S.		66 PR		63 PR
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		72 PR
STD OIL CO. OF INDIANA	CAIN,GEORGE R.		68 72		63 72
HUSKY OIL LIMITED	KENNEDY,DAVID MATTHEW		73 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	69
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				55
CONTINENTAL ASSURANCE CO.					
STD OIL CO. OF INDIANA	LIVINGSTON,HOMER J.		56 70		50 70
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		46 70
CONTINENTAL CAPITAL CORP.					
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.				68 73
CONTINENTAL CASUALTY CO.					
STD OIL CO. OF INDIANA	LIVINGSTON,HOMER J.		56 70		50 70
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		44 70
CONTINENTAL ILLINOIS CORP.					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		69 PR
STD OIL CO. OF INDIANA	YARRINGTON,BLAINE J.	EXEC.VICE PRESIDENT	70 PR		72 74
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		72 PR
STD OIL CO. OF INDIANA	CAIN,GEORGE R.		68 72		69 72
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				68
CONTINENTAL ILLINOIS CORP(CONILL)					
STD OIL CO. OF INDIANA	WRIGHT,JOSEPH S.		66 PR		69 72
CONTINENTAL OIL CO.					
BELCO PETROLEUM CO	WEBB,E.W.		63 71	FMR VICE PRESIDENT	
CONTINENTAL REINSURANCE CO.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		71 72
CONTINENTAL TELEPHONE					
TESORO PETROLEUM CORP.	WOHLSTETTER,CHARLES			CHAIR.OF BOARD	61
CONYERS,DILL & PEARMAN					
EL PASO NATURAL GAS CO	BUTTERFIELD,H.C.			ATTORNEY	
COOK INDUSTRIES,INC.					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		68 PR
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
COOLAWIN INVESTMENTS PTY.,LTD.					
FELMONT OIL CORP.	BARD,RALPH A.,JR.		72 PR		
COOPERATIVE FARM CHEMICALS ASSN.					
FARMLAND INDUSTRIES,INC.	YOUNG,HOMER	PRESIDENT	64 67		64 66

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FARMLAND INDUSTRIES,INC.	WHITE,ROLAND R.		68 PR		69 PR
FARMLAND INDUSTRIES,INC.	VOTH,GEORGE J.		64 68		64 68
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		64 72
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		64 PR
FARMLAND INDUSTRIES,INC.	JOHNSON,NORRIS C.		64 68		64 68
FARMLAND INDUSTRIES,INC.	FUSER,J.M. JR.		64 PR		68 PR
FARMLAND INDUSTRIES,INC.	CHELF,ROY		66 PR		73 PR
COOPERATIVE LEAGUE OF THE USA					
FARMLAND INDUSTRIES,INC.	TORELL,BYRON		64 73		73 73
FARMLAND INDUSTRIES,INC.	STRATTON,J.G.		64 70		64 71
FARMLAND INDUSTRIES,INC.	MILLER,CLIFFORD		64 65		64 65
FARMLAND INDUSTRIES,INC.	HAPPEL,MAURICE L.		64 PR		66 PR
FARMLAND INDUSTRIES,INC.	CHELF,ROY		66 PR		71 73
COOPERATIVE PROCESSING ASSN.					
FARMLAND INDUSTRIES,INC.	STRATTON,J.G.		64 70		64 68
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		64 66
FARMLAND INDUSTRIES,INC.	FUSER,J.M. JR.		64 PR		64 67
COOPERATIVE SERVICE CO.					
FARMLAND INDUSTRIES,INC.	WHITE,ROLAND R.		68 PR		70 PR
FARMLAND INDUSTRIES,INC.	CLARK,ROGER		65 PR		69 71
COPELAND CORP.					
STANDARD OIL CO. OF OHIO	HANGEN,JOHN J.		71 PR		65 PR
COPPER DEVELOPMENT ASSOC.					
PENNZOIL CO.	MORRIS,W.P.		69 72		71 73
PENNZOIL CO.	ATWOOD,G.E.		72 PR		72 PR
COPPER RANGE CO.					
FELMONT OIL CORP.	CASE,HADLEY	CHAIR.OF BOARD CHIEF EXEC.OFFICER	51 PR		66 PR
COPPER VALLEY MINING CORP.					
DELHI INTERNATIONAL OIL CORP	SEWELL,J.L.		64 PR		
CORDELL ENGINEERING,INC.					
ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR		
CORDELL HULL FDN.					
OCCIDENTAL PETROLEUM CORP.	MOSS,MORRIE A.		73 PR	TRUSTEE	
CORINTHIAN BROADCASTING CORP.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
GULF OIL CORPORATION	SINGER,EDWIN		71 PR		69 71
CORN PRODUCTS CO.					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71		
CORNELL UN. PROG.ON SCI.TECH.& SOC.					
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 74
CORNELL UNIVERSITY					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MOBIL OIL CORPORATION	TUCKER,RICHARD F.	EXEC.VICE PRESIDENT PRESIDENT	71 PR	TRUSTEE	PR
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR	TRUSTEE	
CORNING GLASS WORKS CORP.					
MONSANTO COMPANY	PALMER,HOWARD L.		72 PR		
CORNING GLASS WORKS,INC.					
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
CORNING INTERNATIONAL CORP.					
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
CORONADO PIPELINE CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		69 PR
EL PASO NATURAL GAS CO	HAUNSAKER BARRY	VICE PRESIDENT			69 PR
EL PASO NATURAL GAS CO	GERBER,WAYNE S.	ASSISTANT SECRETARY			69 PR
CORP.FOR PUBLIC BROADCASTING					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				68
CORPORATE PROPERTIES,INC.					
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
CORPORATE RESOURCES,INC.					
STANDARD OIL CO. OF OHIO	HARRIS,WADE N.		62 67		
CORPUS CHRISTI BANK & TRUST					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR	CHAIR.OF EXEC.COMM.	65 PR
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		71 PR
FOREST OIL CORP.	DORN,RICHARD B.	VICE PRESIDENT ASSISTANT SECRETARY	64 PR		68 72
CORPUS CHRISTI NEIGHBORHOOD CTRS.					
FOREST OIL CORP.	DORN,RICHARD B.	VICE PRESIDENT ASSISTANT SECRETARY	64 PR		66 70
COTTAGE CORP.,DALLAS					
HUNT OIL CO.	HILL,A.G.		70 PR		64 PR
COUNCIL FOR FINANCIAL AID TO EDUC.					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		64 70
EXXON CORP.	PETERSON,MARTHA		74 PR		74 74
EXXON CORP.	BRISCO,MILO M.		66 72		71 72
CHAMPLIN PETROLEUM CO.	BROWN,C.C.				
COUNCIL FOR INTNL PROGRESS IN MGT.					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR		66 69
COUNCIL FOR LATIN AMERICA					
EXXON CORP.	WHITE,JOHN R.		60 71	VICE-CHAIR.OF BOARD	65 70
COUNCIL OF AMERICAS					
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD	64 PR		PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		FMR PRESIDENT			
EXXON CORP.	COX,DONALD M.		71 PR		72 74
COUNCIL OF BETTER BUS. BUREAUS, INC.					
MARATHON OIL COMPANY	WINGERTER,ROBERT G.		74 PR		
COUNCIL OF GREATER LOS ANGELES					
OCCIDENTAL PETROLEUM CORP.	GROMAN,ARTHUR	ATTORNEY	57 PR		
COUNCIL OF IVY GROUP PRESIDENTS					
AMERADA HESS CORP.	MESTRES,RICARDO A.		72	EXECUTIVE DIRECTOR	
COUNCIL ON ECON.& CULTURAL AFFAIRS					
EXXON CORP.	ELLIOTT,LLOYD W.		51 65		64 64
COUNCIL ON FOREIGN RELATIONS					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		66 PR
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
EXXON CORP.	STINEBOWER,LEROY D.		63 69		66 69
EXXON CORP.	PIERCY,GEORGE T.		66 PR		68 74
EXXON CORP.	PAGE,HOWARD W.		54 70		64 70
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 73
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		67 68
EXXON CORP.	HAIDER,MICHAEL L.		59 69		64 69
EXXON CORP.	CAMPBELL,NICHOLAS J.		65 66		72 74
EXXON CORP.	BRISCO,MILO M.		66 72		71 72
CRA INTERNATIONAL,INC.					
FARMLAND INDUSTRIES,INC.	YOUNG,HOMER	PRESIDENT	64 67		66 66
FARMLAND INDUSTRIES,INC.	VOTH,GEORGE J.		64 68		66 66
FARMLAND INDUSTRIES,INC.	TORELL,BYRON		64 73		66 66
FARMLAND INDUSTRIES,INC.	SUTTER,TED P.		65 PR		67 70
FARMLAND INDUSTRIES,INC.	STRATTON,J.G.		64 70		66 66
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		70 72
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		66 66
FARMLAND INDUSTRIES,INC.	SCHMITZ,N.B.		64 70		66 66
FARMLAND INDUSTRIES,INC.	SCHLADWEILER,GREG		64 67		66 66
FARMLAND INDUSTRIES,INC.	PETERSON,ALBERT		64 66		66 66
FARMLAND INDUSTRIES,INC.	MILLER,OSCAR J.		64 70		66 66
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		67 PR
FARMLAND INDUSTRIES,INC.	KUEHL,CLAUS C.		64 70		66 66
FARMLAND INDUSTRIES,INC.	KRAMER,GEORGE		64 68		66 68
FARMLAND INDUSTRIES,INC.	KIRCHNER,J.J.		64 66		66 66
FARMLAND INDUSTRIES,INC.	JOHNSON,NORRIS C.		64 68		66 66
FARMLAND INDUSTRIES,INC.	HOVEY,EDGAR C.		64 66		66 66
FARMLAND INDUSTRIES,INC.	HAPPEL,MAURICE L.		64 PR		66 66
FARMLAND INDUSTRIES,INC.	FUSER,J.M. JR.		64 PR		66 66
FARMLAND INDUSTRIES,INC.	DILLINGER,TROY		64 72		69 69
FARMLAND INDUSTRIES,INC.	DILLINGER,TROY		64 72		66 66
CRACCA LIBYA,INC.					
FARMLAND INDUSTRIES,INC.	PETERSON,ALBERT		64 66		64 65
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		64 66
FARMLAND INDUSTRIES,INC.	KRAMER,GEORGE		64 68		64 65

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CRAIGMONT MINES LTD.					
CHAMPLIN PETROLEUM CO.	TAYLOR,V.F. JR.				
CRANSTON PRINT WORKS					
MONSANTO COMPANY	ROCKEFELLER,JAMES S.		66 73		
CRAVATH,SWAINE,& MOORE					
ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR	ATTORNEY	
CRAWFORD DRILLING EXPLORATION CO,INC					
CLINTON OIL CO.	LUSK,WILLIAM E.		63 73		67 70
CLINTON OIL CO.	GAMELSON,LYNDON		67 73		67 70
CLINTON OIL CO.	CRONIN,STEWART		70 71		70
CLINTON OIL CO.	CLINTON,REALTO P.	OWNER	63 73		67 70
CRAWFORD OIL & GAS RESERVES,INC.					
CLINTON OIL CO.	LUSK,WILLIAM E.		63 73		67 70
CLINTON OIL CO.	GAMELSON,LYNDON		67 73		67 70
CLINTON OIL CO.	CRONIN,STEWART		70 71		70
CLINTON OIL CO.	CLINTON,REALTO P.	OWNER	63 73		67 70
CRICHTON & CO.					
CLARK OIL & REFINING CORP.	CRICHTON,JOHN A.		72 PR	PRESIDENT	63 PR
CRITERION INS. CO.					
ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR		
CROCKER NATL. BANK					
STANDARD OIL CO.OF CALIF.	PACKARD,DAVID				
STANDARD OIL CO.OF CALIF.	MILLER,O.N.				70 PR
STANDARD OIL CO.OF CALIF.	FOLLIS,R.C.				51 PR
CROCKER NATL. CORP.					
STANDARD OIL CO.OF CALIF.	MILLER,O.N.				70 PR
CROSSROADS REHAB. CENTER					
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 74
CROWN ZELLERBACH CORP.					
UNION OIL CO. OF CALIF.	HUNT,R.O.		63 PR		56 PR
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		64 69
CHAMPLIN PETROLEUM CO.	ROTH,R.W.	PRESIDENT CHIEF EXEC.OFFICER			
CRUCIBLE STEEL CO. OF AMER.					
STANDARD OIL CO. OF OHIO	SWENSRUD,SIDNEY A.	FMR VICE PRESIDENT	58 70		
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		63 68
CRUMPLER O'CONNOR & WAYNE					
MURPHY OIL CO.	O'CONNOR,J.A. JR.		55 PR	ATTORNEY PARTNER	
CTR FOR STRATEGIC & INTNL. STUDIES					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		62 PR
CTS CORP.,ELKHART,IND.					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71		
CUBAN AMERICAN NICKEL					
PENNZOIL CO.	GILPATRICK,R.B. JR.		68 PR		66 PR
CULVER EDUCATIONAL FOUNDATION					
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		52 PR
CUMBERLAND FEED MILLS					
OCCIDENTAL PETROLEUM CORP.	GORE,ALBERT	EXEC.VICE PRESIDENT	72 PR		
CUMMINGS & LOCKWOOD					
CITIES SERVICE CO.	BAM,FOSTER		73 PR	PARTNER	
CUTLER-HAMMER,INC.					
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.				67 PR
CUYAHOGA CORP.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
CYPRESS HAWAIIN CEMENT CORP.					
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR		73 PR
CYPRUS MINES CORP.					
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR		
CYPRUS-PIMA MINING CO.					
UNION OIL CO. OF CALIF.	PARKER,CHARLES F.	SR.VICE PRESIDENT	63 PR		73 PR
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR		55 PR
D & L OIL CORP.					
PENNZOIL CO.	COLEMAN,GEORGE L.		68 PR		54 64
D.C. MENTAL HEALTH ASSOC.					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
DALLAS BAPTIST COLLEGE					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR	TRUSTEE	
DALLAS CENTRAL BUSINESS DIST. ASSOC.					
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
DALLAS CH. OF COMMERCE					
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
DALLAS CITIZENS COUNCIL					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
DALLAS CIVIC OPERA					
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
DALLAS COWBOYS FOOTBALL CLUB					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
DALLAS MUSEUM OF FINE ARTS					
TEXACO,INC.	PARKER,GEORGE JR.		61 PR	TRUSTEE	71 PR
GEN AMER. OIL CO. OF TEXAS	MAYER,FREDERICK M.		PR		64 PR
DALLAS NATL SCIENCE ASSOC.					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
DALLAS RESOURCES INC.					
CLARK OIL & REFINING CORP.	CRICHTON,JOHN A.		72 PR		63 PR
DALLAS SOUTHWEST MEDIA CORP.					
HUNT OIL CO.	HUNT,RAY L.	VICE PRESIDENT	70 PR		73 PR
DALLAS SUMMER MUSICALS					
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
DALLAS SYMPHONY ASSOC.					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
DALLAS TEXAS CORP.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
DALLAS TRANSIT BD.					
GEN AMER. OIL CO. OF TEXAS	MAYER,FREDERICK M.		PR		64 71
DALLAS URBAN LEAGUE,INC.					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
DANA CORP.					
GENERAL CRUDE OIL CO.	WOODRUFF,C.E.				
DANLEY MACHINE SPECIALTIES,INC.					
MURPHY OIL CO.	LEVIN,JOSEPH J.		65 67		
DART INDUSTRIES,INC.					
EL PASO NATURAL GAS CO	KNIGHT,R.M.				
DATA DOCUMENTS,INC.					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		63 PR
DAWSON,GUINN,RIDDELL,TAYLOR&DAVIS					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR	PARTNER	
DE PAUW UNIV.					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR	TRUSTEE	72 PR
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR	TRUSTEE	66 PR
DEAK & CO.INC.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CLINTON OIL CO.	ROETHENMUND,OTTO E.		71 72	SR.VICE PRESIDENT	
DEAN A. MCGEE EYE INST.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	72 PR
DEAN WITTER & CO.,INC.					
SHELL OIL COMPANY	STERLING,J.E.WALLACE		68 PR		
DEANE BROS.,INC.					
OCCIDENTAL PETROLEUM CORP.	DEANE,BEN C.		66 69	PRESIDENT	
DEERE & CO.					
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.			FARM&EQUIP.CHAIRMAN	51
DEFENSE ORIENTATION CONFERENCE ASSOC					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		69 72
DEGOLYER & MACNAUGHTON					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69	CHAIR.OF BOARD	
DEL MONTE CORP.					
STANDARD OIL CO.OF CALIF.	FOLLIS,R.C.				67 PR
MONSANTO COMPANY	PALMER,HOWARD L.		72 PR		
DELBASIN CORP.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
DELHI COLOMBIAN OIL CORP.					
DELHI INTERNATIONAL OIL CORP	SMITH,W.C.	VICE-CHAIR.OF BOARD	64 PR		69 PR
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		69 PR
DELHI INTERNATIONAL OIL CORP	MILLER,N.C.	PRESIDENT	70 PR		69 PR
DELHI PACIFIC MINERALS CO.					
DELHI INTERNATIONAL OIL CORP	SMITH,W.C.	VICE-CHAIR.OF BOARD	64 PR		71 PR
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		71 PR
DELHI INTERNATIONAL OIL CORP	MILLER,N.C.	PRESIDENT	70 PR		71 PR
DELNOR HOSPITAL,ST. CHARLES,ILL.					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR
DELTEC INTERNATIONAL,LTD.					
EXCHANGE OIL AND GAS CORP.	KLINGENSTEIN,FREDERICK A	CHAIR.OF BOARD			71 PR
DENVER COUNTRY DAY SCHOOL					
LION OIL CO.	TWEEDY,J.B.				64 71
FOREST OIL CORP.	MILLER,WILLIAM D.		64 PR		66 67
DENVER MUSEUM OF NATURAL HISTORY					
HAMILTON BROTHERS,INC.	HAMILTON,FERRIS F.	PRESIDENT	69 PR		73 PR
DENVER ZOOLOGICAL FOUNDATION					
HAMILTON BROTHERS,INC.	HAMILTON,FERRIS F.	PRESIDENT	69 PR		72 PR
DEPOS.TR CO.(FMLY CENT.CERT.SERV.)					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		
DEPOSIT GUARANTY NATL BANK					
GEN AMER. OIL CO. OF TEXAS	GEAR,GEORGE A.		PR		48 PR
DEPOSITORS FUND OF BOSTON,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		64 71
DEPOSITORY TRUST CO,					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		73 PR
DERICO,INC.					
UNION TEXAS PETROLEUM	FISHWICK,JOHN P.		73 PR		
DESERT INSURANCE CO.LTD.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		71 PR
EL PASO NATURAL GAS CO	VARENKAMP,LLOYD M.	ASSISTANT SECRETARY			73 PR
EL PASO NATURAL GAS CO	THOMPSON,WILLIAM D.				71 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 73
EL PASO NATURAL GAS CO	SHINN,PHILLIP M.				73 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		71 73
EL PASO NATURAL GAS CO	ELLIOTT,JACK S.				73 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		71 73
EL PASO NATURAL GAS CO	BUTTERFIELD,H.C.				71 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
DETROIT EDISON CO.					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
FELMONT OIL CORP.	BOYD,JAMES		68 72		
DIAMOND SHAMROCK OIL & GAS	DE WINDT,E. MANDELL		69 PR		
DETROIT HARVESTER CO.					
STANDARD OIL CO. OF OHIO	SWENSRUD,SIDNEY A.	FMR VICE PRESIDENT	58 70		
DEUTSCH,KERRIGAN & STILES					
OCCIDENTAL PETROLEUM CORP.	DEUTSCH,EBERHARD P.	ATTORNEY	64 70		
DEVELOPMENT FOUNDATION					
EXXON CORP.	WRIGHT,MYRON A.		58 66		
DEVONSHIRE STREET FUND,INC.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
DEWEY,BALLANTINE,BUSHBY,PALMER,WOOD					
TESORO PETROLEUM CORP.	FULLEM,L. ROBERT			PARTNER	
DI GIORGIO CORP.					
UNION OIL CO. OF CALIF.	HALE,PRENTIS C.		56 PR		73 PR
UNION OIL CO. OF CALIF.	DI GIORGIO,ROBERT	CHAIR.OF BOARD CHIEF EXEC.OFFICER	58 PR		
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
DIAMOND DRILLING CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GENERAL CRUDE OIL CO.	MONTAGUE,K.E.			PRESIDENT	71 PR
DIAMOND SHAMROCK CORP.					
STANDARD OIL CO. OF OHIO	SHEPARD,HORACE A.		65 PR		
DIEBOLD,INC.					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		68 PR
DIETRICH INDUSTRIES,INC.					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		71 PR
DILLINGHAM CORP.					
STANDARD OIL CO.OF CALIF.	JOHNSON,RALPH B.				
DILLON, READ & CO.					
AMERADA HESS CORP.	BRANDI,FREDERIC H.		68 69	FMR CHAIR.OF BOARD	
DINERS CLUB,INC.					
KERR-MCGEE CORP.	COLEFAX,PETER		67 PR		67 73
DIRICKSON LEWIS DRILLING CO.					
PENNZOIL CO.	COLEMAN,GEORGE L.		68 PR		54 66
DISCOUNT CORP. OF N.Y.					
EXXON CORP.	COLLADO,EMILIO G.		60 PR		64 74
DISCOVER AMERICA,INC.					
MARATHON OIL COMPANY	YOUNG,GRANT H.	CHAIR.OF EXEC.COMM.	63 73		
DISTILLERS CORP.-SEAGRAMS LTD.					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72		
DIVERSIFICATION FUND,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		60 71
DIVICON INC(SUBS.OF INTNL UTIL.CORP)					
FELMONT OIL CORP.	WALKER,LYNN	PRESIDENT CHIEF OPER.OFFICER	66 PR		68 71
DIVIDEND SHARES,INC.					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
CONTINENTAL OIL CO.	PACE,FRANK,JR.				56
DOLLAR SAVINGS AND TRUST CO.					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		44 72
DOME MINES LTD.					
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR	CHAIR.OF BOARD	
DOME PETROLEUM LTD.					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72		
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR		
DOMTAR LTD.					
APCO OIL CORP.	ROSS,ARTHUR		68 PR		61 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
DON & SYBIL HARRINGTON FDN.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
DONALDSON,LUFKIN & JENRETTE INC.					
UNION TEXAS PETROLEUM	TROWBRIDGE,ALEXANDER B.		68 PR		
DONNELLEY,REUBEN H. CORP.					
CHAMPLIN PETROLEUM CO.	MITCHELL,H.B.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
DONNER-HANNA COKE CORP.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
DORCHESTER GAS CO.					
CLARK OIL & REFINING CORP.	CRICHTON,JOHN A.		72 PR		54 PR
DOUBLEDAY & CO.,INC.					
CHAMPLIN PETROLEUM CO.	GERRY,E.T.				
DOW JONES & CO.					
MOBIL OIL CORPORATION	RIORDAN,JAMES	SR.VICE PRESIDENT	69 PR		
EXXON CORP.	CROSS,BERT S.		67 74		70 73
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		69
DOWN TOWN REAL ESTATE CO.					
EL PASO NATURAL GAS CO	GLASSELL,ALFRED C. JR.		57 PR		
DOWNTOWN AIRPARK,INC.					
KERR-MCGEE CORP.	SEALE,A.T.F.	FMR VICE PRESIDENT	65 PR		65 PR
DOWNTOWN BANK					
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		65 70
DOWNTOWN-LOWER MANHATTAN ASSOC.,INC.					
CHAMPLIN PETROLEUM CO.	MITCHELL,H.B.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
DOYCE CORP.					
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
DRESSER INDUSTRIES,INC.					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
DREYFUSS CORP.					
UNION TEXAS PETROLEUM	MCCLOY,JOHN J.		55 70		
DROVERS STATE BANK,S.ST.PAUL,MINN.					
ASHLAND OIL, INC.	ERICKSON,EUGENE		71 PR		
DRY DOCK SAVINGS BK					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		64 66
EXXON CORP.	PETERSON,MARTHA		74 PR		74 74
DU-WEL METAL PRODUCTS,INC.					
CLINTON OIL CO.	SMITH,JOHN J.		73 PR		64 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
DUKANE CORP.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		63 PR
DUKE UNIV.					
MOBIL OIL CORPORATION	MCGHEE,GEORGE C.		69 PR	TRUSTEE	
CONTINENTAL OIL CO.	HARDESTY,C. HOWARD JR.	DIVISION PRESIDENT		TRUSTEE	73 PR
CITIES SERVICE CO.	SANFORD,TERRY		71 PR	PRESIDENT	
DUN & BRADSTREET COS.,INC.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR		71 PR
CHAMPLIN PETROLEUM CO.	MITCHELL,H.B.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
CHAMPLIN PETROLEUM CO.	EVANS,J.H.				
DUNFREY HOLDINGS LTD.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR	PRESIDENT	
DUQUESNE CLUB					
CONTINENTAL OIL CO.	CORCORAN,JOHN				71 PR
DUQUESNE UNIVERSITY					
GULF OIL CORPORATION	LOUGHNEY,E.D.		64 70		68 PR
DUVAL CORP.					
PENNZOIL CO.	MORRIS,W.P.		69 72		57 73
PENNZOIL CO.	ATWOOD,G.E.		72 PR	PRESIDENT CHIEF EXEC.OFFICER	62 PR
DUVAL CORP. OF CANADA					
PENNZOIL CO.	MORRIS,W.P.		69 72		68 72
PENNZOIL CO.	ATWOOD,G.E.		72 PR		68 PR
DUVAL CORP.,DEL.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		70 71
DUVAL CORP.,TEXAS					
PENNZOIL CO.	PARKES,ED		68 72		57 70
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		66 70
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		65 70
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		66 70
DUVAL DE PANAMA S.A.					
PENNZOIL CO.	MORRIS,W.P.		69 72		69 72
PENNZOIL CO.	ATWOOD,G.E.		72 PR		69 PR
DUVAL INTNL CORP.					
PENNZOIL CO.	MORRIS,W.P.		69 72		62 72
PENNZOIL CO.	ATWOOD,G.E.		72 PR		62 PR
DUVAL SALES CORP.					
PENNZOIL CO.	MORRIS,W.P.		69 72		64 72
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		64 71
PENNZOIL CO.	ATWOOD,G.E.		72 PR		64 PR
DUVAL SIERRITA CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PENNZOIL CO.	MORRIS,W.P.		69 72		67 72
PENNZOIL CO.	ATWOOD,G.E.		72 PR		67 PR
DWIGHT PRESBYTERIAN MISSION,INC					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 65
E G & G,INC.					
SUN OIL CO.	POUNDS,WILLIAM F.		73 PR		69 PR
E. TEXAS HOSPITAL FOUNDATION					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		73 PR
E.F. HUTTON & CO.,INC.					
TESORO PETROLEUM CORP.	DETWILER,PETER M.			VICE-CHAIR.OF BOARD	
GETTY OIL COMPANY	PHILLIPS,DONALD K.		61 65	VICE PRESIDENT	
E.T.BARWICK INDUSTRIES,INC.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
EARLE M. JORGENSEN CO.					
KERR-MCGEE CORP.	JORGENSEN,EARLE M.		67 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	65 PR
EAST HEIGHTS UNITED METHODIST CHURCH					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		51 PR
EASTDIL REALTY CORP.					
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR		
EASTMAN DILLON,UNION SECURITIES & CO					
GETTY OIL COMPANY	BARTON,D.FREDERICK		62 67	PARTNER	44 70
EATON CORP.					
DIAMOND SHAMROCK OIL & GAS	EVANS,RAYMOND F.		64 PR		
DIAMOND SHAMROCK OIL & GAS	DE WINDT,E. MANDELL		69 PR	CHAIR.OF BOARD	
EBERSTADT FUND,INC.					
EL PASO NATURAL GAS CO	SCHNEIDER,FRANZ		57 PR		
ECCDOR INVESTMENT CO.,INC.					
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
ECONOMIC CLUB OF CHICAGO					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		64 PR
ECONOMIC CLUB OF N.Y.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		68 70
TEXACO,INC.	GRANVILLE,MAURICE F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	70 PR		74 PR
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		70 PR
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR		73 PR
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		70 73
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		70 71

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EXXON CORP.	BRISCO,MILO M.		66 72		70 72
ECONOMIC DEVELOP.BOARD,LOS ANGELES					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		68 73
ECONOMIC DEVELOPMENT COUNCIL					
EXXON CORP.	GARVIN,CLIFFORD C. JR.				73 74
ECONOMIC DEVELOPMENT COUNCIL OF NYC					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		69 PR
EXXON CORP.	HAIDER,MICHAEL L.		59 69		68 69
EXXON CORP.	BRISCO,MILO M.		66 72		70 72
EDIE SPECIAL GROWTH FUND INC.					
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69		
EDIE SPECIAL INSTITUTIONAL FUND INC.					
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69		
EDUCATIONAL BROADCASTING CO.					
EXXON CORP.	PIERCY,GEORGE T.		66 PR		68 73
EDWIN COOPER,INC.					
BURMAH OIL INC.	BUCHANNAN, GEORGE R.		73 PR	PRESIDENT	
EISENHOWER COLLEGE					
CONTINENTAL OIL CO.	NORSTAD,LAURIS				71 PR
EL CAN PETROLEUM CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		70 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		70 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			70 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		70 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		70 PR
EL DORADO CHAMBER OF COMMERCE					
LION OIL CO.	SHEEHAN,J.H.	SR.VICE PRESIDENT	72 PR		73 PR
EL PASO ALASKA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
EL PASO ALGERIA CORP.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		69 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		69 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		69 PR
EL PASO ATLANTIC CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		70 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		70 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		70 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO BOLIVIA CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		72 PR
EL PASO CALIFORNIA CO.					
EL PASO NATURAL GAS CO	OWENS,JESSE L.				74 PR
EL PASO NATURAL GAS CO	OWENS,JACK B.				74 PR
EL PASO NATURAL GAS CO	NOEL,W.D.				74 PR
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				74 PR
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR		74 PR
EL PASO CANADIAN PETROLEUM LTD.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		71 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			71 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		71 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
EL PASO CO.					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		74 PR
EL PASO NATURAL GAS CO	WILLIAMS,C.R.		63 PR		74 PR
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		74 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		74 PR
EL PASO NATURAL GAS CO	SCHNEIDER,FRANZ		57 PR		74 PR
EL PASO NATURAL GAS CO	RITTMANN,VIRGIL				74 PR
EL PASO NATURAL GAS CO	PETTY,TRAVIS H.	EXEC.VICE PRESIDENT	71 PR		74 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		74 PR
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		74 PR
EL PASO NATURAL GAS CO	GLASSELL,ALFRED C. JR.		57 PR		74 PR
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		74 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		74 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		74 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		74 PR
EL PASO COLUMBIA CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		72 PR
EL PASO COSTA RICA CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT	71 PR		72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	GENERAL COUNSEL CHAIR.OF BOARD	53 PR		72 PR
EL PASO DEL PERU CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT	71 PR		72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	GENERAL COUNSEL CHAIR.OF BOARD	53 PR		72 PR
EL PASO DEVELOPMENT CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		70 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		64 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		65 73
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT	71 PR		70 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	GENERAL COUNSEL CHAIR.OF BOARD	53 PR		65 PR
EL PASO EASTERN CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		69 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		69 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		69 PR
EL PASO ENERGY RESOURCES CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT	71 PR		72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	GENERAL COUNSEL CHAIR.OF BOARD	53 PR		72 PR
EL PASO EUROPE-AFRIQUE,S.A.					
EL PASO NATURAL GAS CO	KLEHE,R.				
EL PASO GUATEMALA CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		74 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		74 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			74 PR
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			74 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		74 PR
EL PASO HOTEL CO.					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		
EL PASO MARINE CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		70 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		70 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		70 PR
EL PASO MINING AND MILLING CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		68 PR
EL PASO NATURAL GAS CO	WAGNER,FRED T.		46 71		64 70
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		64 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		64 73
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		64 65
EL PASO NATURAL GAS CO	HOWELL,BEN R.		65 69		65 68
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		70 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		64 PR
EL PASO NATIONAL BANK					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR	CHAIR.OF BOARD	
EL PASO NATURAL GAS BUILDING CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		70 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		65 PR
EL PASO NATURAL GAS CO	PETTY,TRAVIS H.	EXEC.VICE PRESIDENT	71 PR		70 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		64 73
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		64 65
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		64 PR
EL PASO NATURAL GAS CO.					
BELCO PETROLEUM CO	WILLIAMS,C.R.		59 70		
EL PASO NICARAGUA CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		72 PR
EL PASO NORTH SEA CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		72 PR
EL PASO NORTH SEA LTD.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		71 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			71 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT	71 PR		71 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		GENERAL COUNSEL			
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
EL PASO NORWAY CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT	69 PR		73 PR
		SECRETARY			
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			73 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT	71 PR		73 PR
		GENERAL COUNSEL			
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
EL PASO PACIFIC CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		72 PR
EL PASO PANAMA CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT	69 PR		71 PR
		SECRETARY			
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			71 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT	71 PR		71 PR
		GENERAL COUNSEL			
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
EL PASO PRODUCTS CO.					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		74 PR
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				65 70
EL PASO NATURAL GAS CO	WILLIAMS,C.R.		63 PR		67 PR
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT	69 PR		69 PR
		SECRETARY			
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				65 72
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		56 PR
EL PASO NATURAL GAS CO	SMITH,ROBERT E.				73 PR
EL PASO NATURAL GAS CO	SCHNEIDER,FRANZ		57 PR		67 PR
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		74 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		56 PR
EL PASO NATURAL GAS CO	PAYNE,LEON M.		57 72		67 72
EL PASO NATURAL GAS CO	OWENS,JESSE L.				72 PR
EL PASO NATURAL GAS CO	OWENS,JESSE L.			VICE PRESIDENT	72 PR
EL PASO NATURAL GAS CO	OWENS,JACK B.			SECRETARY	72 PR
				TREASURER	
EL PASO NATURAL GAS CO	NOEL,W.D.			PRESIDENT	63 PR
EL PASO NATURAL GAS CO	MOORE,C.L.				56 66
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.			EXEC.VICE PRESIDENT	65 PR
EL PASO NATURAL GAS CO	LUCKETT,PAUL H. III				70 PR
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR		74 PR
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		56 PR
EL PASO NATURAL GAS CO	JOHNSON,V.A.			VICE PRESIDENT	
EL PASO NATURAL GAS CO	GLASSELL,ALFRED C. JR.		57 PR		67 PR
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		74 PR
EL PASO NATURAL GAS CO	CLEMENTS,O.R.			VICE PRESIDENT	
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		56 PR
EL PASO NATURAL GAS CO	ATCHESON,M.M.	VICE PRESIDENT	68 70		66 72

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO PRODUCTS PIPELINE CO.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				65 68
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				65 72
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		65 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		65 72
EL PASO NATURAL GAS CO	OWENS,JESSE L.				69 PR
EL PASO NATURAL GAS CO	OWENS,JACK B.				72 PR
EL PASO NATURAL GAS CO	NOEL,W.D.				64 PR
EL PASO NATURAL GAS CO	MOORE,C.L.				64 66
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				64 PR
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR		72 PR
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		64 72
EL PASO NATURAL GAS CO	JOHNSON,V.A.				72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		64 PR
EL PASO NATURAL GAS CO	ATCHESON,M.M.	VICE PRESIDENT	68 70		66 72
EL PASO PRODUCTS SALES CORP.					
EL PASO NATURAL GAS CO	OWENS,JESSE L.				73 PR
EL PASO NATURAL GAS CO	OWENS,JACK B.				73 PR
EL PASO NATURAL GAS CO	NOEL,W.D.				73 PR
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				73 PR
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR		73 PR
EL PASO PRODUCTS SERVICE CO.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				65 68
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				65 72
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		64 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		64 72
EL PASO NATURAL GAS CO	OWENS,JESSE L.				69 PR
EL PASO NATURAL GAS CO	OWENS,JACK B.				72 PR
EL PASO NATURAL GAS CO	NOEL,W.D.				65 PR
EL PASO NATURAL GAS CO	MOORE,C.L.				64 66
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				65 PR
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR		72 PR
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		64 72
EL PASO NATURAL GAS CO	JOHNSON,V.A.				72 PR
EL PASO NATURAL GAS CO	CLEMENTS,O.R.				72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		64 PR
EL PASO NATURAL GAS CO	ATCHESON,M.M.	VICE PRESIDENT	68 70		66 72
EL PASO RUSSIA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
EL PASO SOUTHEASTERN CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
EL PASO SOUTHERN CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		70 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		70 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		70 PR
EL PASO TIMES					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		
EL PASO-ALGERIA CO.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				66 69
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		66 73
EL PASO NATURAL GAS CO	NOEL,W.D.				66 72
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				69 72
EL PASO NATURAL GAS CO	KLEHE,R.				66 72
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		72 PR
EL PASO NATURAL GAS CO	COWART,VIRGIL	VICE PRESIDENT			66 72
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		65 72
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		65 PR
EL-TEX CORP.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
ELEANOR ROOSEVELT CANCER FDN.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		60 PR
ELEANOR ROOSEVELT MEMORIAL FDN.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		63 PR
ELECTRO-QUIMICO MEXICANA,S.A.					
MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR		
ELECTROCHEMICAL INDUSTRIES CORP.					
DIAMOND SHAMROCK OIL & GAS	DE NORA,VITTORIO		73 PR		
ELECTRONICS CAPITAL CORP.					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR		60 65
ELECTRONICS INVESTMENT CORP.					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR		60 65
ELECTRONOR CORP.					
DIAMOND SHAMROCK OIL & GAS	DE NORA,VITTORIO		73 PR		
ELGIN NATL INDUSTRY					
TEXAS OIL & GAS CO.	GOULD,MILTON S.		59 PR	CHAIR.OF BOARD	66 PR
ELI LILLY & CO.					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR	CHAIR.OF BOARD	71 PR
MOBIL OIL CORPORATION	WILLIAMS,ALBERT L.		60 PR		PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ELISABETH SEVERANCE PRENTISS FDN.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		74 PR
ELIZABETH SETON COLLEGE					
EXXON CORP.	CAMPBELL,NICHOLAS J.		65 66		73 74
ELK REFINING CO.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		69 PR
ELLEX TRANSPORTATION,INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		72 PR
ELLIS SHCOOL					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR	TRUSTEE	PR
EMERSON ELECTRIC CO.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
DIAMOND SHAMROCK OIL & GAS	PERSONS,WALLACE R.		65 PR	CHAIR.OF BOARD	
EMPIRE LUBRICANTS,INC.					
BURMAH OIL INC.	DONAHUE,M.J.		71 PR		
EMPIRE TRUST COMPANY					
EXXON CORP.	STOTT,WILLIAM R.		56 68		65 66
EMPLOYERS CASUALTY CO.					
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
DELHI INTERNATIONAL OIL CORP	CLARK,EDWARD A.	ATTORNEY	69 PR		
EMPLOYERS INSURANCE-WAUSAU					
TENNECO INC.	HANCOCK,THOMAS		72 74		PR
EMPLOYERS NATL LIFE					
DELHI INTERNATIONAL OIL CORP	CLARK,EDWARD A.	ATTORNEY	69 PR		
EMPORIUM CAPWELL CO.					
STANDARD OIL CO.OF CALIF.	FOLLIS,R.C.				71 PR
ENDOWMENT MANAGEMENT & RESEARCH					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		67 71
ENERGY RESEARCH & EDUCATION FDN.					
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			70 PR
ENERGY RESOURCES EXPLORATION INT.INC					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		73 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		73 PR
EL PASO NATURAL GAS CO	MCCOWN,RICHARD L.	VICE PRESIDENT ASSISTANT SECRETARY			73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
ENERGY VENTURES,INC.					
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		72 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CONTINENTAL OIL CO.	CRAM,IRA H.		52 66		
APCO OIL CORP.	KEYSER,PAUL V.	CONSULTANT	72 PR		72 PR
					72 PR
ENGINEERING SPECIALTIES LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
ENGLISH SPEAKING UNION OF THE U.S.					
MOBIL OIL CORPORATION	MCGHEE,GEORGE C.		69 PR	CHAIR.OF BOARD	
ENTERPRISE HOTEL DEVELOPMENT CORP.					
COMMONWEALTH OIL REFINING	CALDERON,CESAR A.		61 69		
ENVIRONMENTAL ECONOMICS,INC.					
TESORO PETROLEUM CORP.	ROTE,JOHN				72
ENVIRONMENTAL RESEARCH & TECH.,INC.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		72 PR
ENVIROTECH CORP.					
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.				73 PR
EPISCOPAL CHURCH FDN.,ILL.ADV.CNCL.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		70 PR
EQUITABLE GAS CO.					
EL PASO NATURAL GAS CO	SCHNEIDER,FRANZ		57 PR		
EQUITABLE LIFE ASSURANCE					
TEXACO,INC.	LONG,AUGUSTUS C.	CHAIR.OF EXEC.COMM.	50 PR		59 69
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69		
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		72 74
CONTINENTAL OIL CO.	BUEK,CHARLES				67 PR
EQUITABLE LIFE ASSURANCE SOC.OF U.S.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
EQUITABLE LIFE INS. CO.					
STANDARD OIL CO.OF CALIF.	MILLER,O.N.				73 PR
EQUITABLE LIFE INSUR.CO.OF IOWA					
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				56 66
EQUITABLE SECURITIES CORP.					
MURPHY OIL CO.	OWEN,RALPH		60 PR		30 70
EREX AUSTRALIA,INC.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		73 73
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			73 73
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		74 PR
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 73
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
EREX MALAYSIA,INC.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		73 73
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			73 73
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		74 PR
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 73
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
EREX PAKISTAN,INC.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
EREX PERU,INC.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
ERIE LACKAWANNA RAILWAY CO.					
UNION TEXAS PETROLEUM	FISHWICK,JOHN P.		73 PR		
AMERADA HESS CORP.	HESS,LEON	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68		
ESQUIRE,INC.					
CITIES SERVICE CO.	SANFORD,TERRY		71 PR		
ESSEX OFFSHORE,INC.					
FELMONT OIL CORP.	CASE,HADLEY	CHAIR.OF BOARD CHIEF EXEC.OFFICER	51 PR		53 PR
ESSEX ROYALTY CORP.					
FELMONT OIL CORP.	WALKER,LYNN	PRESIDENT CHIEF OPER.OFFICER	66 PR		66 PR
FELMONT OIL CORP.	RICHARDS,H. AMES JR.	SR.VICE PRESIDENT	67 PR		54 PR
FELMONT OIL CORP.	CASE,HADLEY	CHAIR.OF BOARD CHIEF EXEC.OFFICER	51 PR		40 PR
ESTATE WELCOME					
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR	CHAIR.OF BOARD	64 PR
EUROPEAN-AMERICAN BANKING CORP.					
PANHANDLE ESTRN PIPE LN.CO	EKBLOM,HARRY E.		71 PR	PRESIDENT CHAIR.OF BOARD	
EVANSTON HOSPITAL					
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR		68 PR
EVERGLADES PIPELINE CO.					
UNION OIL CO. OF CALIF.	MCCONNOR,WILLIAM S.	SR.VICE PRESIDENT	73 PR		67 PR
EVERGREEN CEMETERY					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR		69 PR
EX-MISSION RANCHES,INC.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT	69 PR		73 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		SECRETARY			
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		70 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		70 73
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT	71 PR		73 PR
		GENERAL COUNSEL			
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		70 PR
EXCEL CATTLE CO.					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR		
EXCELSIOR LIFE INS. CO.					
GEN AMER. OIL CO. OF TEXAS	MATTHEWS,PAUL W.		PR		64 PR
EXCHANGE BANK & TRUST CO.					
LION OIL CO.	SHEEHAN,J.H.	SR.VICE PRESIDENT	72 PR		67 PR
EXCHANGE BANK & TRUST CO.,DALLAS					
HUNT OIL CO.	HILL,A.G.		70 PR		68 PR
EXCHANGE FUND,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		63 71
EXCHANGE SERVICE CORP.					
EXCHANGE OIL AND GAS CORP.	GOODWIN,ROBERT L.	PRESIDENT			74 PR
EXCHANGE OIL AND GAS CORP.	CHRISTINA,CARLO C.	SR.VICE PRESIDENT			74 PR
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			74 PR
EXMET CORP.					
LION OIL CO.	LEVIN,N.W.				48 PR
EXPORT-IMPORT BANK OF THE U.S.					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		65 68
F & M BANK & TRUST CO.,TULSA,OKLA.					
GULF OIL CORPORATION	SAVAGE,ROYCE H.		64 69		69 PR
F & M BANK OF TULSA					
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		65 PR
F & M SCHAEFER CORP.					
SHELL OIL COMPANY	GWINN,W.P.		66 PR		
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
F.M.C. CORP.					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR	CHAIR.OF BOARD	70 PR
				PRESIDENT	67
STANDARD OIL CO.OF CALIF.	LUND,GAGE				
MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR	EXEC.VICE PRESIDENT	
F.S.SMITHERS&CO.,INC.					
CONTINENTAL OIL CO.	LAWRENCE,ARTHUR B.		69	PARTNER	69
F.W. WOOLWORTH CO.					
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FAIRFIELD SURG.&MED. ELECTRONICS					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		68 74
FALCONBRIDGE NICKEL MINES LTD.					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		71 PR
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		69 PR
FAMILY HEALTH,INC.					
MONSANTO COMPANY	MAYER,JEAN		70 PR		
FAMILY SERVICE OF SOUTH LAKE COUNTY					
STD OIL CO. OF INDIANA	TURNER,J. HOWELL		59 65		67 71
FANNIE MAY CANDY SHOPS,INC.					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		45 PR
FAR-MAR-CO,INC.					
FARMLAND INDUSTRIES,INC.	VOTH,GEORGE J.		64 68	EXEC.VICE PRESIDENT	
FARAH MFG. CORP.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		
FARGO OILS LTD.					
GEN AMER. OIL CO. OF TEXAS	SWESNIK,ROBERT M.	VICE-CHAIR.OF BOARD	64 PR		64 68
GEN AMER. OIL CO. OF TEXAS	MEADOWS,ALGUR H.	CHAIR.OF BOARD	PR		64 68
GEN AMER. OIL CO. OF TEXAS	CONNALLY,FREDERICK H.	CHAIR.OF EXEC.COMM.	66 PR		66 67
FARM FDN.					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		66 71
FARM.IND.EMPL.INCENT.&INVEST.SAV.PLN					
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		66 PR
FARM&INDUS.EQUIP.INST.					
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				60 66
FARMACIA MOSCOSO					
COMMONWEALTH OIL REFINING	MOSCOSO,TEODORO		64 73		
FARMBEST,INC.					
FARMLAND INDUSTRIES,INC.	YOUNG,HOMER	PRESIDENT	64 67		64 66
FARMLAND INDUSTRIES,INC.	WELTY,GEORGE		64 64		64 65
FARMLAND INDUSTRIES,INC.	PETERSON,ALBERT		64 66		64 66
FARMLAND INDUSTRIES,INC.	MCGOUGH,EDMUND		66 72		67 70
FARMLAND INDUSTRIES,INC.	MCGOHAN,LES N.		64 70		65 70
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		67 70
FARMLAND INDUSTRIES,INC.	HOVEY,EDGAR C.		64 66		64 66
FARMERS CHEMICAL CO.					
FARMLAND INDUSTRIES,INC.	YOUNG,HOMER	PRESIDENT	64 67		64 65
FARMLAND INDUSTRIES,INC.	VOTH,GEORGE J.		64 68		66 68
FARMLAND INDUSTRIES,INC.	MILLER,CLIFFORD		64 65		64 65
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		66 PR
FARMLAND INDUSTRIES,INC.	FUSER,J.M. JR.		64 PR		68 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FARMERS ELEVATOR MUTUAL INSURANCE CO					
FARMLAND INDUSTRIES,INC.	VOTH,GEORGE J.		64 68		67 69
FARMLAND INDUSTRIES,INC.	VOIGT,KEITH M.		70 PR		71 PR
FARMLAND INDUSTRIES,INC.	TORELL,BYRON		64 73		68 PR
FARMLAND INDUSTRIES,INC.	SINCLAIR,VAUGHN O.		68 PR		73 PR
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		67 72
FARMLAND INDUSTRIES,INC.	RICE,W.E.		70 PR		73 PR
FARMLAND INDUSTRIES,INC.	OSTERMAN, HAROLD		66 PR		68 PR
FARMLAND INDUSTRIES,INC.	NOREM,HOMER J.		70 PR		73 PR
FARMLAND INDUSTRIES,INC.	MCGOUGH,EDMUND		66 72		69 72
FARMLAND INDUSTRIES,INC.	MCGOHAN,LES N.		64 70		67 71
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		67 PR
FARMLAND INDUSTRIES,INC.	HAPPEL,MAURICE L.		64 PR		72 PR
FARMLAND INDUSTRIES,INC.	HAND,PHILIP		72 PR		72 PR
FARMLAND INDUSTRIES,INC.	GWIN,FRANCIS B.		72 PR		73 PR
FARMLAND INDUSTRIES,INC.	GARRETSON		68 PR		71 PR
FARMLAND INDUSTRIES,INC.	DILLINGER,TROY		64 72		67 72
FARMERS EXCH. BANK OF CHEROKEE,OKLA.					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		39 72
FARMERS GROUP,INC.					
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
FARMERS LIFE CO.					
FARMLAND INDUSTRIES,INC.	VOIGT,KEITH M.		70 PR		71 PR
FARMLAND INDUSTRIES,INC.	TORELL,BYRON		64 73		68 PR
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		68 72
FARMLAND INDUSTRIES,INC.	OSTERMAN, HAROLD		66 PR		68 PR
FARMLAND INDUSTRIES,INC.	MCGOHAN,LES N.		64 70		68 71
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		68 PR
FARMERS REG. COOP.,FT.DODGE,IA.*					
NATL COOP. REFINERY ASSN	JOHNSTON,E.D.		65 66		
NATL COOP. REFINERY ASSN	JENNY,WILBUR M.		64 67		
FARMERS UNION CENTRAL EXCH.,ST.PAUL					
NATL COOP. REFINERY ASSN	WAGNER,H.F.		64 67		
NATL COOP. REFINERY ASSN	NOLAN,J.L.		64 66		
NATL COOP. REFINERY ASSN	MELBY,EDWARD		70 PR		
NATL COOP. REFINERY ASSN	KORTH,ORRIN		66 74		
NATL COOP. REFINERY ASSN	KAVOURAS,GEORGE N.		68 PR	VICE PRESIDENT	
NATL COOP. REFINERY ASSN	ERICKSON,LAWRENCE		64 70		
NATL COOP. REFINERY ASSN	BROSTE,JOHN		74 PR		
FARMLAND AGRISERVICES,INC.					
FARMLAND INDUSTRIES,INC.	CLARK,ROGER		65 PR		70 PR
FARMLAND FOODS,INC.					
FARMLAND INDUSTRIES,INC.	SUTTER,TED P.		65 PR		70 PR
FARMLAND INDUSTRIES,INC.	SINCLAIR,VAUGHN O.		68 PR		72 PR
FARMLAND INDUSTRIES,INC.	MCGOUGH,EDMUND		66 72		70 72
FARMLAND INDUSTRIES,INC.	MCGOHAN,LES N.		64 70		70 71
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		70 PR
FARMLAND INDUSTRIES,INC.	CLARK,ROGER		65 PR		70 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FARMLAND IND. EMPLOY. RETIREMENT PLN					
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		66 PR
FARMLAND INDUSTRIES INC.,KANSAS CITY					
NATL COOP. REFINERY ASSN	WILLIAMS,GUY D.		66 70		
NATL COOP. REFINERY ASSN	STEPHENSON,A.H.		64 66	EXEC.VICE PRESIDENT	
NATL COOP. REFINERY ASSN	SCHULTE,JOHN L.		64 73		
NATL COOP. REFINERY ASSN	NIELSON,KENNETH		70 PR		
NATL COOP. REFINERY ASSN	LINDSEY,ERNEST T.		64 68	PRESIDENT	
NATL COOP. REFINERY ASSN	COWDEN,MILES F.		68 74		
NATL COOP. REFINERY ASSN	CHELF,ROY		73 PR		
FARMLAND INSURANCE AGENCY,INC.					
FARMLAND INDUSTRIES,INC.	VOTH,GEORGE J.		64 68		67 68
FARMLAND INDUSTRIES,INC.	TORELL,BYRON		64 73		66 68
FARMLAND INDUSTRIES,INC.	SUTTER,TED P.		65 PR		68 PR
FARMLAND INDUSTRIES,INC.	SINCLAIR,VAUGHN O.		68 PR		69 PR
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		67 72
FARMLAND INDUSTRIES,INC.	MCGOHAN,LES N.		64 70		67 69
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		69 PR
FARMLAND INDUSTRIES,INC.	HAPPEL,MAURICE L.		64 PR		68 68
FARMLAND INDUSTRIES,INC.	DILLINGER,TROY		64 72		67 68
FARMLAND INDUSTRIES,INC.	CHELF,ROY		66 PR		73 PR
FARMLAND LIFE INSURANCE CO.					
FARMLAND INDUSTRIES,INC.	SINCLAIR,VAUGHN O.		68 PR		73 PR
FARMLAND INDUSTRIES,INC.	RICE,W.E.		70 PR		73 PR
FARMLAND INDUSTRIES,INC.	HAND,PHILIP		72 PR		73 PR
FDN. FOR CHRISTIAN COMMUNICATION					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR		
FDN. FOR FULL SERVICE BANKS					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		69 73
FEDERAL ADVISORY COUNCIL					
MURPHY OIL CO.	MORGAN,ALLEN		73 PR		
FEDERAL CITY COUNCIL					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	72 PR
FEDERAL CO.,MEMPHIS					
MURPHY OIL CO.	MORGAN,ALLEN		73 PR		
FEDERAL COCA-COLA BOTTLING CO.					
EXCHANGE OIL AND GAS CORP.	SMITH,CECIL L.				67 PR
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			67 PR
FEDERAL INDUSTRIES					
EXCHANGE OIL AND GAS CORP.	KUECHLER,HENRY N. 3RD				68 PR
FEDERAL INSURANCE CO.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FEDERAL PRISONS INDUSTRIES,INC.					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71		
FEDERAL RESERVE BANK OF BOSTON					
UNION TEXAS PETROLEUM	MILLER,G.WILLIAM		73 PR		
FEDERAL RESERVE BANK OF CHICAGO					
EXXON CORP.	FRANKLIN,WILLIAM H.		69 PR		69 73
FEDERAL RESERVE BANK OF CLEVELAND					
STANDARD OIL CO. OF OHIO	SHEPARD,HORACE A.		65 PR		
STD OIL CO. OF INDIANA	JOHNSTON,LOGAN T.		63 71		62 68
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		68 70
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		66 69
DIAMOND SHAMROCK OIL & GAS	SHEPARD,HORACE A.		67 PR		
FEDERAL RESERVE BANK OF DALLAS					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		
FEDERAL RESERVE BANK OF KANSAS CITY					
PHILLIPS PETROLEUM CO.	LEARNED,STANLEY		64 70		66 71
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 69
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		72 PR
FEDERAL RESERVE BANK OF NY					
TEXACO,INC.	GRANVILLE,MAURICE F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	70 PR		72 PR
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR	CHAIR.OF BOARD	69 71
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		61 66
FEDERAL RESERVE BOARD OF N.Y.					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		64 67
FEDERAL STREET FUND,BOSTON					
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
FEDERATED CAPITAL CORP.					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		74 PR
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.			CHAIR.OF BOARD	
FEDERATED DEPARTMENT STORES,INC.					
MONSANTO COMPANY	ANDERSON,DILLON		60 74		
FERRO CORP.					
STANDARD OIL CO. OF OHIO	WHITEHOUSE,ALTON W.JR.	PRESIDENT	67 PR		68 PR
FIAT SOCIETA PER AZIONI					
UNION TEXAS PETROLEUM	MEYER,ANDRE		67 71		
UNION TEXAS PETROLEUM	ELLSWORTH,ROBERT		72 PR		
EXXON CORP.	COLONNA DI PALIANO,GUIDO		71 PR		72 74

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FIDELITY BANK,N.A.,OKLA. CITY					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		67 69
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			69 PR
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 72
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		65 PR
KERR-MCGEE CORP.	KELLY,JAMES J.	PRESIDENT CHIEF OPER.OFFICER	72 PR		73 PR
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.			PRESIDENT	65 PR
FIDELITY CORP. OF OKLA.					
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		73 PR
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				74 PR
FIDELITY UNION BANCORP					
UNION TEXAS PETROLEUM	GIBLIN,E.BURKE		73 PR		
FIDELITY UNION LIFE INS.					
SUN OIL CO.	PEW,JNO. G.		41 PR		64 PR
FIDELITY UNION TRUST CO.					
UNION TEXAS PETROLEUM	GIBLIN,E.BURKE		73 PR		
FIDELITY VENTURE ASSOC.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR	PRESIDENT	
FIDUCIARY EXCH. FUND,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		66 71
FIELD FDN. OF ILL.,INC.					
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR		72 PR
FIELD MUSEUM OF NATL HISTORY					
STD OIL CO. OF INDIANA	YARRINGTON,BLAINE J.	EXEC.VICE PRESIDENT	70 PR	PRESIDENT	70 PR
FINANCIAL EXECUTIVES INSTITUTE					
MARATHON OIL COMPANY	GRAHAM,ELMER A.	VICE PRESIDENT	73 PR		63 PR
FINANCIAL GENERAL BANKSHARES					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		66 PR
FINANCIAL OF TENN.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		66 69
FINDLAY COLLEGE					
MARATHON OIL COMPANY	MCMILLEN,ROBERT E.	SR.VICE PRESIDENT	68 PR	TRUSTEE	68 PR
FIREMAN'S FUND AMER. LIFE INS. CO.					
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
FIREMANS FUND AMER. INS. CO.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
STANDARD OIL CO.OF CALIF.	FOLLIS,R.C.				67 74
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FIRST AMERICA CORP.					
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
FIRST BANCSHARES,INC.,OK.					
PHILLIPS PETROLEUM CO.	ROBERTS,W.A.	EXEC.VICE PRESIDENT	69 PR		74 PR
PHILLIPS PETROLEUM CO.	KITTRELL,C.M.	EXEC.VICE PRESIDENT			74 PR
PHILLIPS PETROLEUM CO.	BROOKBY,HARRY D.	EXEC.VICE PRESIDENT	73 PR		74 PR
FIRST BARNABUS HOSPITAL					
TEXACO,INC.	PHIPPS,OGDEN		58 PR		35 PR
FIRST BOSTON CORP.					
MARATHON OIL COMPANY	LAND,JAMES N. JR.		73 PR	SR.VICE PRESIDENT	
COMMONWEALTH OIL REFINING	OVERBY,ANDREW N.		62 65		
COMMONWEALTH OIL REFINING	MILLER, PAUL L.				64 68
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
FIRST BOSTON(EUROPE)LTD.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		73 PR
FIRST CHICAGO CORP.					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		69 73
FIRST CITY BANCORPORATION OF TEXAS					
EXXON CORP.	WRIGHT,MYRON A.		58 66		
EL PASO NATURAL GAS CO	GLASSELL,ALFRED C. JR.		57 PR		73 74
FIRST CITY NATL BANK					
EL PASO NATURAL GAS CO	GLASSELL,ALFRED C. JR.		57 PR		
FIRST CITY NATL BANK OF HOUSTON					
MURPHY OIL CO.	SEARLS,DAVID T.		69 73		
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		46 PR
FIRST CONTINENTAL REAL ESTATE INV.TR					
TENNECO INC.	HOVERSTOCK,NEWTON K.		72 74		PR
FIRST FED SAVINGS & LOAN,TYLER TEX					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		
FIRST INS. CO. OF HAWAII,LTD.					
TEXACO,INC.	HARRIS,HENRY U.		35 73		63 66
FIRST INTNL BANCSHARES					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
FIRST INVESTMENT PLANNING CO.					
CLINTON OIL CO.	SPELLMAN,J.C.		67 71	PRESIDENT	
FIRST LAUREL BANK					
FOREST OIL CORP.	WOLFE,JAMES D.		64 73		64 PR
FIRST MISS,CORP.					
AMERADA HESS CORP.	HEARIN,ROBERT M.		69		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FIRST NATL BANCORPORATION					
HAMILTON BROTHERS,INC.	HAMILTON,FREDERIC C.	CHAIR.OF BOARD	69 PR		71 PR
FIRST NATL BANK & TRUST CO. OF TULSA					
SUN OIL CO.	FOSS,R. EDWIN	EXEC.VICE PRESIDENT	68 PR		64 PR
STD OIL CO. OF INDIANA	YOST,F. RANDOLPH	SR.VICE PRESIDENT	65 PR		63 PR
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR		67 73
PHILLIPS PETROLEUM CO.	HOUCHIN,JOHN M.	FMR CHAIR.OF BOARD	64 PR		71 PR
PHILLIPS PETROLEUM CO.	DOUCE,WILLIAM C.	PRESIDENT	69 PR		74 PR
PENNZOIL CO.	BOVAIRD,DAVIS D.		68 68		64 66
GULF OIL CORPORATION	WARREN,W.K.		64 69		64 PR
CITIES SERVICE CO.	RAMSEUR,FRED H. JR.	EXEC.VICE PRESIDENT	71 PR		
CITIES SERVICE CO.	NOLLEY,GEORGE O.		70 PR		
CITIES SERVICE CO.	KIDD,ROBERT L.	PRESIDENT	56 66		
FIRST NATL BANK & TRUST CO,OKLA.CITY					
CITIES SERVICE CO.	CRENSHAW,KIRBY E.	PRESIDENT	58 72		
FIRST NATL BANK FT. WORTH					
CLINTON OIL CO.	BEDFORD,CHARLES F.		73 PR		64 71
FIRST NATL BANK IN DALLAS					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		65 PR
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
FIRST NATL BANK IN ST.LOUIS					
MONSANTO COMPANY	THOMAS,CHARLES ALLEN	CHAIR.OF BOARD	42 68		
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
MONSANTO COMPANY	BOCK,HOWARD J.	PRESIDENT	65 72		
FIRST NATL BANK OF AMARILLO					
MESA PETROLEUM COMPANY	PICKENS,T.B. JR.	PRESIDENT CHAIR.OF BOARD	64 74		
MESA PETROLEUM COMPANY	MADDEN,WALES H. JR.		64 74		
FIRST NATL BANK OF AMARILLO,TEXAS					
DIAMOND SHAMROCK OIL & GAS	PATTERSON,V.P.		67 PR	CHAIR.OF BOARD	
DIAMOND SHAMROCK OIL & GAS	DUNN,J. HAROLD		67 PR		
DIAMOND SHAMROCK OIL & GAS	CASH,C.A.	PRESIDENT CHIEF EXEC.OFFICER	67 PR		
FIRST NATL BANK OF BROKEN ARROW,OKLA					
GULF OIL CORPORATION	WARREN,W.K.		64 69	CONSULTANT	72 PR
FIRST NATL BANK OF CHICAGO					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		61 73
STD OIL CO. OF INDIANA	LIVINGSTON,HOMER J.		56 70		48 70
FIRST NATL BANK OF EL DORADO					
MURPHY OIL CO.	NOLAN,WILLIAM C.		50 PR		
MURPHY OIL CO.	MURPHY,C.H. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	50 PR		47 PR
FIRST NATL BANK OF FINDLAY					
MARATHON OIL COMPANY	WEST,HOWARD H.	VICE PRESIDENT	53 68		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MARATHON OIL COMPANY	GRAHAM,ELMER A.	VICE PRESIDENT	73 PR		69 PR
MARATHON OIL COMPANY	DONNELL,JOHN R.	SR.VICE PRESIDENT	54 73		
MARATHON OIL COMPANY	DONNELL,JAMES C. II	CHAIR.OF BOARD	36 PR		31 PR
FIRST NATL BANK OF FORT WORTH-ADVIS					
EL PASO NATURAL GAS CO	NOEL,W.D.				61 72
FIRST NATL BANK OF JACKSON,MISS.					
SOUTHLAND OIL CO.	HEARIN,ROBERT M.		66 66	CHAIR.OF BOARD	
AMERADA HESS CORP.	HEARIN,ROBERT M.		69	CHAIR.OF BOARD	
FIRST NATL BANK OF MIAMI,OKLA.					
PENNZOIL CO.	COLEMAN,GEORGE L.		68 PR		33 70
FIRST NATL BANK OF MIDLAND					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		59 71
FIRST NATL BANK OF OKLA.CITY					
CITIES SERVICE CO.	MORTON,JOHN W.	VICE PRESIDENT	68 PR		
FIRST NATL BANK OF SHREVEPORT					
PENNZOIL CO.	PARKES,ED		68 72		60 70
FIRST NATL BANK OF ST. PAUL					
EXXON CORP.	CROSS,BERT S.		67 74		67 73
FIRST NATL BANK OF WASHINGTON					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		62 72
FIRST NATL BANK OF WICHITA					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		51 PR
FIRST NATL BANK-SAN ANTONIO					
EL PASO NATURAL GAS CO	NOEL,W.D.				61 PR
FIRST NATL BANK,ALEX,OKLA.					
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				65 PR
FIRST NATL BANK,BARTLESVILLE,OKLA.					
PHILLIPS PETROLEUM CO.	STRADLEY,B.F.	VICE PRESIDENT	64 64		64 64
PHILLIPS PETROLEUM CO.	ROBERTS,W.A.	EXEC.VICE PRESIDENT	69 PR		
PHILLIPS PETROLEUM CO.	PHILLIPS,PHILLIP R.		64 69		64 73
PHILLIPS PETROLEUM CO.	MARTIN,W.F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	64 PR		68 PR
PHILLIPS PETROLEUM CO.	LEARNED,STANLEY		64 70		64 65
PHILLIPS PETROLEUM CO.	KITTRELL,C.M.	EXEC.VICE PRESIDENT			74 PR
PHILLIPS PETROLEUM CO.	HOUCHIN,JOHN M.	FMR CHAIR.OF BOARD	64 PR		70 PR
PHILLIPS PETROLEUM CO.	ENDACOTT,PAUL	VICE-CHAIR.OF BOARD	64 67		64 67
PHILLIPS PETROLEUM CO.	DOUCE,WILLIAM C.	PRESIDENT	69 PR		71 PR
PHILLIPS PETROLEUM CO.	BROOKBY,HARRY D.	EXEC.VICE PRESIDENT	73 PR		74 PR
PHILLIPS PETROLEUM CO.	ADAMS,K.S.	FMR CHAIR.OF BOARD	64 70		64 70
FIRST NATL BANK,SOUTHAVEN,MISS.					
UNION TEXAS PETROLEUM	BRADFORD,DAVID M. JR.	PRESIDENT	70 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		EXEC.VICE PRESIDENT			
FIRST NATL BANK,ST. LOUIS,MO.					
DIAMOND SHAMROCK OIL & GAS	PERSONS,WALLACE R.		65 PR		
FIRST NATL BK & TRUST CO.,MUSKOGEE					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			70 PR
FIRST NATL BK OF N.C.,CHARLOTTE,N.C.					
ASHLAND OIL, INC.	ROSS,F.H. JR.		71 PR		
FIRST NATL CITY BANK					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR	CHAIR.OF EXEC.COMM.	
STANDARD OIL CO.OF CALIF.	PIGGOTT,CHARLES M.				
STANDARD OIL CO.OF CALIF.	HAYNES,J.T.	CHAIR.OF BOARD			72 PR
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		
PHILLIPS PETROLEUM CO.	FORWARD,DEWITT A.		64 64	VICE-CHAIR.OF BOARD	
MONSANTO COMPANY	SOMMER,CHARLES H.	CHAIR.OF BOARD	59 PR	TRUSTEE	
MONSANTO COMPANY	ROCKEFELLER,JAMES S.		66 73	FMR CHAIR.OF BOARD	
MONSANTO COMPANY	PALMER,HOWARD L.		72 PR		
MONSANTO COMPANY	EATON,FREDERICK M.		47 PR		
MOBIL OIL CORPORATION	WILLIAMS,ALBERT L.		60 PR		PR
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
EXXON CORP.	HAIDER,MICHAEL L.		59 69		64 69
EXXON CORP.	GARVIN,CLIFFORD C. JR.				73 74
EXXON CORP.	BRISCO,MILO M.		66 72		71 72
COMMONWEALTH OIL REFINING	LOCKWOOD,WILLIAM A.		73 PR	SR.VICE PRESIDENT	
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR	VICE-CHAIR.OF BOARD	
FIRST NATL CITY CORP.					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR	CHAIR.OF EXEC.COMM.	
STANDARD OIL CO.OF CALIF.	HAYNES,J.T.	CHAIR.OF BOARD			72 PR
MONSANTO COMPANY	PALMER,HOWARD L.		72 PR	CHAIR.OF EXEC.COMM.	
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
EXXON CORP.	BRISCO,MILO M.		66 72		71 72
CHAMPLIN PETROLEUM CO.	BARNETT,F.E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
FIRST NATL CITY FDN.					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		71 PR
FIRST NATL CTY.TRUST CO.(BAHAMAS)LTD					
MONSANTO COMPANY	ROCKEFELLER,JAMES S.		66 73		
FIRST NATL HOLDING CO.					
MURPHY OIL CO.	MORGAN,ALLEN		73 PR		
FIRST NATL STATE BANK OF N.J.					
AMERADA HESS CORP.	MCCOLLUM,H.W.	CHAIR.OF EXEC.COMM.	69		
FIRST NL BK OF OREGON					
CHAMPLIN PETROLEUM CO.	ROTH,R.W.	PRESIDENT CHIEF EXEC.OFFICER			

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FIRST OKLAHOMA BANCORPORATION,INC.					
CITIES SERVICE CO.	CRENSHAW,KIRBY E.	PRESIDENT	58 72		
FIRST SECURITY BK OF IDAHO,N.A.					
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
FIRST SECURITY BK OF UTAH,N.A.					
HUSKY OIL LIMITED	ECCLES,GEORGE STODDARD				
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
FIRST SECURITY CORP.					
HUSKY OIL LIMITED	ECCLES,GEORGE STODDARD				
CHAMPLIN PETROLEUM CO.	KENEFICK,J.C.			PRESIDENT	68 68
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.			PRESIDENT	
CHAMPLIN PETROLEUM CO.	BAILEY,E.H.			CHIEF EXEC.OFFICER	
FIRST SECURITY NATL BANK & TRUST CO.					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR	PRESIDENT	
FIRST SM. BUSINESS INVESTMENT CORP.					
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
FIRST STATE BANK					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		
FIRST STATE BANK OF CORPUS CHRISTI					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
FIRST STATE BANK,BLANCHARD,OKLA.					
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				65 PR
FIRST STATE BK & TRST CO OF OK. CITY					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 PR
FIRST TENN. NATL CORP.					
MURPHY OIL CO.	MURPHY,C.H. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	50 PR		72 PR
MURPHY OIL CO.	MORGAN,ALLEN		73 PR	HONORARY CHAIRMAN CONSULTANT	
FIRST TEXAS PHARMACEUTICALS,INC.					
TEXAS OIL & GAS CO.	HUTCHISON,WILLAIM L.	PRESIDENT	58 PR		68 PR
FIRST TULSA BANCORPORATION,INC.					
STD OIL CO. OF INDIANA	YOST,F. RANDOLPH	SR.VICE PRESIDENT	65 PR		63 PR
CITIES SERVICE CO.	NOLLEY,GEORGE O.		70 PR		
FIRST UNION CORP.					
DIAMOND SHAMROCK OIL & GAS	PERSONS,WALLACE R.		65 PR		
FIRST UNION INC.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73	FMR CHAIR.OF BOARD	
FIRST UNION REALTY					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
DIAMOND SHAMROCK OIL & GAS	HUGHES,JAMES A.	CHAIR.OF BOARD	64 PR		
FIRST UNITED BANCORPORATION,INC.					
CHAMPLIN PETROLEUM CO.	BALRIDGE,E.	CHAIR.OF EXEC.COMM.			
FIRST WESTERN BANK & TRUST CO.					
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
FIRST WISCONSIN MORTGAGE TRUST					
TENNECO INC.	KETELSON,JAMES L.	EXEC.VICE PRESIDENT	72 74		PR
FISH ENGINEERING & CONSTRUCTION INC.					
EL PASO NATURAL GAS CO	SMITH,G.B.			VICE PRESIDENT	
EL PASO NATURAL GAS CO	SIMECHECK,D.M.			PRESIDENT	
EL PASO NATURAL GAS CO	NACHOD,J.E. JR.			EXEC.VICE PRESIDENT	
EL PASO NATURAL GAS CO	AMES,C.B.			CHAIR.OF BOARD	
FISH INVESTMENT CO.					
EL PASO NATURAL GAS CO	IMBER,J.R.				
FISHER CONTROLS CO.,INC.					
MONSANTO COMPANY	FISHER,W.		71 PR	FMR CHAIR.OF BOARD	
FISHER-NEW CENTER CO.					
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
FIVE MAN BD.OF MUNICIPAL ARTS COMMS.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		69 73
FLETCHER SCHL OF LAW&DIPL.BD.OF VIS.					
EXXON CORP.	COLLADO,EMILIO G.		60 PR		70 73
EXXON CORP.	COLLADO,EMILIO G.		60 PR		64 64
FLINTKOTE COMPANY					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
FLORIDA GAS CO.					
CLARK OIL & REFINING CORP.	CRICHTON,JOHN A.		72 PR		72 PR
FLORIDA NATL BANK OF JACKSONVILLE					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		66 PR
FLORIDA NATL BK & TRUST CO.,MIAMI					
GEN AMER. OIL CO. OF TEXAS	WHATLEY,BROWN L.		PR		63 PR
FLORIDA POWER & LIGHT CO.					
COMMONWEALTH OIL REFINING	BENNETT,GEORGE F.		54 PR		
FLORIDA PUBLISHING CO.					
GEN AMER. OIL CO. OF TEXAS	DANIEL,J.J.		64 PR		64 PR
FMR CORP.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		74 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FMR DEVELOPMENT CORP.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		71 73
FMR SERVICE CORP.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		71 PR
FNCB WALTONS CORP.					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		71 PR
FOOD & DRUG LAW INST.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR	TRUSTEE	71 PR
FOOD FAIR PROPERTIES,INC.					
GETTY OIL COMPANY	BARTON,D.FREDERICK		62 67		
FOOD FAIR STORES,INC.					
GETTY OIL COMPANY	BARTON,D.FREDERICK		62 67		
FOODCO,INC.					
OCCIDENTAL PETROLEUM CORP.	CAVERLY,ROBERT J.	EXEC.VICE PRESIDENT	72 PR		
FOOTE MINERAL CO.					
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72		
FORD FENCE CO.,INC.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		68 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		68 71
FORD FOUNDATION					
EXXON CORP.	STRATTON,JULIUS A.		66 70	CHAIR.OF BOARD	66 68
FORD MOTOR CO.					
STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR		50 68
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
FORD MOTOR CO. LTD.					
STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR		61 65
FORD MOTOR CO. OF CANADA,LTD.					
STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR		57 65
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		62 PR
FORDHAM UNIVERSITY					
UNION TEXAS PETROLEUM	BISSINGER,FREDERICK L.	VICE-CHAIR.OF BOARD CHIEF OPER.OFFICER	66 PR	TRUSTEE	
FOREIGN COMMERCE BANK,ZURICH&GENEVA					
CLINTON OIL CO.	ROETHENMUND,OTTO E.		71 72	VICE-CHAIR.OF BOARD	
FOREIGN POLICY ASSOC.					
MONSANTO COMPANY	O'NEAL,HOWARD H.		55 56		
MONSANTO COMPANY	BRYAN,ANTHONY J.A.	VICE PRESIDENT	71 73		
MONSANTO COMPANY	ANDERSON,DILLON		60 74		
EXXON CORP.	STOTT,WILLIAM R.		56 68		66 67

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EXXON CORP.	STOTT,WILLIAM R.		56 68		64 64
EXXON CORP.	PIERCY,GEORGE T.		66 PR		69 70
FOREST CITY PUB.CO.					
OCCIDENTAL PETROLEUM CORP.	VAIL,HERMAN L.	ATTORNEY	68 PR		70
FORET,S.A.					
MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR		
FORS'S THEATRE SOCIETY					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		70 PR
FORT DEARBORN INCOME SECURITIES,INC.					
STD OIL CO. OF INDIANA	MAY,L. CHESTER	VICE PRESIDENT	63 PR		72 PR
FORT WORTH NATL CORP.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
FORTY-NINE NORTH,INC.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		70 PR
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		70 PR
PENNZOIL CO.	KERR,BAINE P.	GENERAL COUNSEL CHAIR.OF EXEC.COMM.	68 PR		70 PR
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		70 PR
PENNZOIL CO.	BOVAIRD,W.J.		72 PR		70 PR
FOSTER WHEELER CORP.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		64 74
FOUNDERS BANK & TRUST CO.,OKLA.CITY					
ROCK ISLAND REFINERY CORP.	MARTIN,GEORGE C.	SR.VICE PRESIDENT	72 73		64 PR
FOX VLIET DRUG CO.,WICHITA					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		72 74
FRANCE-AMERICA SOCIETY					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
FRANK PHILLIPS FDN.					
PHILLIPS PETROLEUM CO.	PARKER,PAUL J.	VICE PRESIDENT	64 64	TRUSTEE	64 64
FRANKLIN CORP.					
FELMONT OIL CORP.	SULLIVAN,JAMES J.		49 PR		
FRANKLIN NEW YORK CORP.					
PHILLIPS PETROLEUM CO.	SEARS,ROBERT N.	SR.VICE PRESIDENT	70 PR		73 PR
FRANKLIN NL BK					
PHILLIPS PETROLEUM CO.	SEARS,ROBERT N.	SR.VICE PRESIDENT	70 PR		73 PR
FREEPORT MINERALS CO.					
TEXACO,INC.	WILLIAMS, LANGBOURNE M.	HONORARY CHAIRMAN	58 PR		30 73
TEXACO,INC.	LONG,AUGUSTUS C.	CHAIR.OF EXEC.COMM.	50 PR		58 69

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		69 PR
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
FRENCH INSTITUTE					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	
FRIENDLY FROST					
TEXAS OIL & GAS CO.	GOULD,MILTON S.		59 PR		66 PR
FRONTIER REFINING CO.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		60 66
FRONTIERS OF SCIENCES FDN.OF OKLA.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
FRUEAUFF,FARRELL,SULLIVAN & BRYAN					
CITIES SERVICE CO.	FARRELL,JAMES P.		66 PR	PARTNER	
FRUEHAUF CORP.					
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
FS SERVICES,INC.,BLOOMINGTON,IL.					
NATL COOP. REFINERY ASSN	STEVENSON,E.V.		66 71	EXEC.VICE PRESIDENT	
NATL COOP. REFINERY ASSN	SIMS,MELVIN E.		64 PR	PRESIDENT	
NATL COOP. REFINERY ASSN	BERG,G. CHESTER		71 PR		
FUEL CONVERSION CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	PETTY,TRAVIS H.	EXEC.VICE PRESIDENT	71 PR		72 PR
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		72 PR
FULTON ASSOC.,INC.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		66 71
FUND AMERICAN COS.					
STANDARD OIL CO.OF CALIF.	FOLLIS,R.C.				
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
FUND FOR PEACE					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		71 PR
FUNDAMERICA OF JAPAN INC.					
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69		
G-R REALTY CORP.					
ROCK ISLAND REFINERY CORP.	WINKLER,L.E.	PRESIDENT	64 70		64 64
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		65 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 71
GANNETT CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
UNION TEXAS PETROLEUM	TROWBRIDGE,ALEXANDER B.		68 PR		
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		69 PR
GARDNER'S BAY COUNTRY CLUB					
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		64 67
APCO OIL CORP.	KEYSER,PAUL V.	CONSULTANT	72 PR		64 67
GATE CITY STEEL CORP.					
HUSKY OIL LIMITED	LARSEN,ARNOLD		69 74		
GATES LEARJET CORP.					
HAMILTON BROTHERS,INC.	HAMILTON,FREDERIC C.	CHAIR.OF BOARD	69 PR		72 PR
GATES RUBBER CO.					
HAMILTON BROTHERS,INC.	GATES,CHARLES C. JR.		69 PR	PRESIDENT	
GEN.AMER.OIL CO.OF TEXAS RETIRE.TRST					
GEN AMER. OIL CO. OF TEXAS	CONNALLY,FREDERICK H.		66 PR	CHAIR.OF INVEST.COMM	
GEN.RADIATION CORP.					
CLINTON OIL CO.	COGGINS,PETER R. M.D.		71 72		
GENERAL ADJUSTMENT BUREAU					
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		73 PR
GENERAL AMER. INVESTMENT CO.,INC.					
UNION TEXAS PETROLEUM	TROWBRIDGE,ALEXANDER B.		68 PR		
GENERAL AMER. INVESTORS CO.,INC.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
GENERAL AMERICAN LIFE INSURANCE CO.					
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		72 PR
GENERAL CONTRACT FINANCE CORP.					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
GENERAL DYNAMICS CORP.					
UNION TEXAS PETROLEUM	NOTMAN,J.GEOFFREY		58 73	VICE PRESIDENT	
UNION TEXAS PETROLEUM	ELLSWORTH,ROBERT		72 PR		
STANDARD OIL CO.OF CALIF.	PACKARD,DAVID				
DIAMOND SHAMROCK OIL & GAS	PERSONS,WALLACE R.		65 PR		
GENERAL ELECTRIC CO.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		55 PR
MOBIL OIL CORPORATION	BORCH,FRED J.		73 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	62 72
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		50 72
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		64
CITIES SERVICE CO.	GATES,THOMAS S.		61 PR		
GENERAL ENERGY CORP.					
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		72 PR
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		69 PR
GENERAL FINANCIAL SYSTEMS,INC.					
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			70 74
GENERAL FOODS CORP.					
UNION TEXAS PETROLEUM	GIBLIN,E.BURKE		73 PR		
UNION TEXAS PETROLEUM	CONNOR,JOHN T.	FMR PRESIDENT CHAIR.OF BOARD	67 PR		
SHELL OIL COMPANY	COOK,C.W.		73 PR	CHAIR.OF EXEC.COMM.	
MOBIL OIL CORPORATION	WILLIAMS,ALBERT L.		60 PR		PR
MOBIL OIL CORPORATION	TAVOULAREAS,WILLIAM P.	PRESIDENT FMR VICE PRESIDENT	65 PR		PR
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		69 PR
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		66 69
GENERAL LEISURE,INC.					
OCCIDENTAL PETROLEUM CORP.	CAVERLY,ROBERT J.	EXEC.VICE PRESIDENT	72 PR		67
GENERAL MOTORS CORPORATION					
UNION TEXAS PETROLEUM	CONNOR,JOHN T.	FMR PRESIDENT CHAIR.OF BOARD	67 PR		
MOBIL OIL CORPORATION	WILLIAMS,ALBERT L.		60 PR		PR
EXXON CORP.	MORGENS,HOWARD J.		67 69		67 68
GENERAL REINSURANCE CORP.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		69 PR
CONTINENTAL OIL CO.	MCLEAN,JOHN G.				70 74
CONTINENTAL OIL CO.	BUEK,CHARLES				66 PR
GENERAL TELEPHONE CO.					
LONE STAR GAS CO.	POOL,FRANK M.				
GENERAL TIME CORP.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
GEO-FRACTURING,INC.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		70 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		70 PR
EL PASO NATURAL GAS CO	SMITH,SAMUEL	VICE PRESIDENT			70 PR
EL PASO NATURAL GAS CO	CUMING,G.SCOTT	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		70 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		70 PR
GEOLI INVESTMENT CO.					
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
GEOLOGICAL SOC. OF AMER.					
EXXON CORP.	BARROW,THOMAS D.		72 PR		72 74
GEOPHYSICS & COMPUTER SERV.,INC.					
MURPHY OIL CO.	INGRAM,F.B.		61 74		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GEORGE C. MARSHALL RESEARCH FDN.					
TEXACO,INC.	WILLIAMS, LANGBOURNE M.	HONORARY CHAIRMAN	58 PR		67 PR
CONTINENTAL OIL CO.	NORSTAD,LAURIS				73 PR
GEORGE OLMSTEAD FDN.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		69 PR
GEORGE WASHINGTON UNIV.					
UNION TEXAS PETROLEUM	GRAHAM,KATHARINE		73 PR	TRUSTEE	
STD OIL CO. OF INDIANA	WRIGHT,JOSEPH S.		66 PR	TRUSTEE	74 PR
GERMAN ASSOC.OF CHMBRS OF COMM.&IND.					
EXXON CORP.	WOLFF VON AMERONGEN,OTTO		71 PR	PRESIDENT	72 74
GETTY OIL ITALIANA S.P.A.					
GETTY OIL COMPANY	GETTY,E.PAUL	CHAIR.OF EXEC.COMM.	65 67	FMR PRESIDENT MANAGING DIRECTOR	
GETTYS MFG. CO.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		68 PR
GIRARD BANK					
SUN OIL CO.	SHARBAUGH,H.ROBERT	PRESIDENT CHIEF OPER.OFFICER	70 PR		72 PR
GIRARD CO.					
SUN OIL CO.	SHARBAUGH,H.ROBERT	PRESIDENT CHIEF OPER.OFFICER	70 PR		72 PR
GL ADVIS.COMM.ON ARMS CONTROL&DISARM					
CONTINENTAL OIL CO.	NORSTAD,LAURIS				69 70
GLADDING MCBEAN & CO.					
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
GLADNEY HOME,FT.WORTH,TEXAS					
FOREST OIL CORP.	DORN,RICHARD B.	VICE PRESIDENT ASSISTANT SECRETARY	64 PR		57 PR
GLENDORN FOUNDATION					
FOREST OIL CORP.	WOLFE,JAMES D.		64 73		64 PR
FOREST OIL CORP.	MILLER,WILLIAM D.		64 PR		64 71
GLENMEDE TRUST CO.					
SUN OIL CO.	PEW,JNO. G.		41 PR		64 PR
SUN OIL CO.	DUNLOP,ROBERT G.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	44 PR		64 PR
GENERAL CRUDE OIL CO.	PEW,J.N. 3RD			VICE PRESIDENT	
GENERAL CRUDE OIL CO.	BELL,A.R. JR.			PRESIDENT	
GLENWOOD SCHOOL FOR BOYS					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		58 65
GOLDEN IMPERIAL,INC.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		64 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 PR
GOLDEN WEST BASEBALL CLUB PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		63 PR
GOLDEN WEST BASEBALL CO. GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
GOLDMAN,SACHS & CO. AMERADA HESS CORP.	KEEHN,GRANT		63 71	PARTNER	
GOODWILL INDUSTRIES STANDARD OIL CO. OF OHIO	HART,RALPH A.	CHAIR.OF BOARD VICE-CHAIR.OF BOARD	66 PR		
GORE SUPPLY CO. OCCIDENTAL PETROLEUM CORP.	GORE,ALBERT	EXEC.VICE PRESIDENT	72 PR		
GOVERNMENTAL RESEARCH INST. STANDARD OIL CO. OF OHIO	HART,RALPH A.	CHAIR.OF BOARD VICE-CHAIR.OF BOARD	66 PR		
GOVT. DEVELOPMENT BK OF PUERTO RICO COMMONWEALTH OIL REFINING	CAMERO,SERGIO		74 PR		
GOVT. EMPLOYEES FINANCIAL CORP. ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR		
GOVT. EMPLOYEES INS. CO. ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR		
GOVT. EMPLOYEES LIFE INS. CO. ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR		
GRADUATE RESEARCH CTR.OF S.WEST CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
GRALAND COUNTRY DAY SCHOOL HAMILTON BROTHERS,INC.	HAMILTON,FREDERIC C.	CHAIR.OF BOARD	69 PR		70 PR
GRAND UNION CO. COMMONWEALTH OIL REFINING	PICO,RAFAEL		73 PR		
APCO OIL CORP.	ROSS,ARTHUR		68 PR		68 PR
GRATIOT COMMUNITY HOSPITAL TOTAL LEONARD,INC.	SABOFF,STEPHEN D.	PRESIDENT	66 72		69 72
TOTAL LEONARD,INC.	KAMPERMAN,L.R.	VICE PRESIDENT	44 70		64 69
TOTAL LEONARD,INC.	BUCKLER,K.R.	SR.VICE PRESIDENT	70 PR		72 PR
GRAVEL REALIZATION CORP. DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
GRAY DRUG STORES DIAMOND SHAMROCK OIL & GAS	REAVIS,JOHN W.		64 72		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GREAT AMER. HOLDING CORP.					
TEXACO,INC.	HARRIS,HENRY U.		35 73		67 68
GREAT AMER. INS. CO.					
TEXACO,INC.	HARRIS,HENRY U.		35 73		51 68
MONSANTO COMPANY	EATON,FREDERICK M.		47 PR		
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		71 72
GREAT AMER. LIFE INS. CO.					
TEXACO,INC.	HARRIS,HENRY U.		35 73		59 68
GREAT ATLANTIC & PACIFIC TEA CO.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		70 71
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		58 PR
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
GREAT NORTHERN NEKOOSA CORP.					
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
GREAT PLAINS DEV. CO.OF CANADA,LTD.					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69	PRESIDENT	
GREAT SOUTHWEST CORP.					
GEN AMER. OIL CO. OF TEXAS	MAYER,FREDERICK M.		PR		64 72
GREATER LOS ANGELES URBAN COALITION					
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71	VICE-CHAIR.OF BOARD	
GREATER NEWARK URBAN COALITION					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		70 71
GREATER ST.LOUIS ARTS & EDUC.COUNCIL					
MONSANTO COMPANY	HOCHWALT,CARROLL A.	VICE PRESIDENT	49 64		
GREATER TOLEDO CORP.					
MARATHON OIL COMPANY	WINGERTER,ROBERT G.		74 PR		
GREATER WICHITA CHAMBER OF COMMERCE					
LION OIL CO.	BROWN,T.P.				70 72
GREENHILL SCHOOL					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
GREENSTREET NEWS CO.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		72 PR
GREENWICH COUNTRY CLUB					
CONTINENTAL OIL CO.	KIRCHER,JOHN E.	PRESIDENT CHIEF OPER.OFFICER			74 PR
GREENWICH SAVINGS BANK					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GREYHOUND CORP.					
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		
GROCERS' MANUFACTURERS ASSOC.					
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		64
GROCERY MANUFACTURERS OF AMERICA					
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		65 PR
GRTR CLEVELAND GROWTH BOARD					
STANDARD OIL CO. OF OHIO	BALDWIN,E. COLIN		63 69		
GRTR DALLAS PLANNING COUNCIL					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
GRTR SAN ANTONIO CH. OF COMMERCE					
TESORO PETROLEUM CORP.	WEST,ROBERT V. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
GRTR ST.PAUL UNITED FUND & COUNCIL					
EXXON CORP.	CROSS,BERT S.		67 74		67 69
GRUMMAN DATA SYSTEMS CORP.					
SUN OIL CO.	POUNDS,WILLIAM F.		73 PR		68 71
GUARANTEE MUTUAL INSURANCE CO.					
CHAMPLIN PETROLEUM CO.	KENEFICK,J.C.				
GUARDIAN LIFE INS. CO.					
CITIES SERVICE CO.	SHEPARD,LYLE L.	EXEC.VICE PRESIDENT	62 69		
GUDE,WINMILL & CO.					
CLINTON OIL CO.	WATSON,DAVID M.		67 73	REPRESENTATIVE	
CLINTON OIL CO.	MORRIS,JOHN A.		71 73	PARTNER	
GUGGENHEIM FDN.					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		63 PR
GULF COAST WATER CO.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
GULF INTERSTATE CO.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		53 60
APCO OIL CORP.	WELLS,C.T.		66 PR	PRESIDENT VICE-CHAIR.OF BOARD	72 PR
GULF LIFE HOLDING CO.					
GENERAL CRUDE OIL CO.	WOODRUFF,C.E.				
GULF MTGE & REALTY CO.,INC.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR	TRUSTEE	70 PR
GULF OIL CANADA LTD.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		55 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GULF OIL CORP.					
STANDARD OIL CO. OF OHIO	SWENSRUD,SIDNEY A.	FMR VICE PRESIDENT	58 70	FMR CHAIR.OF BOARD	
GUSTIN-BACON MANUFACTURING CO.					
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR		51 66
H.J.HEINZ CO.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
HACIENDA VARGAS,SA					
DELHI INTERNATIONAL OIL CORP	SEWELL,J.L.		64 PR		
HALLGARTEN AND COMPANY					
CROWN CENTRAL PETROL CORP	STRALEM,DONALD S.		49 66		
CROWN CENTRAL PETROL CORP	KAUFFMANN,FRED M.		66 PR	PARTNER	
HALLIBURTON CO.					
LOUISIANA LAND & EXPLOR.	GRAHAM,FORD M.	CHAIR.OF EXEC.COMM.	60 PR		65 PR
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		63 PR
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
HALLMARK CARDS,INC.					
PHILLIPS PETROLEUM CO.	WESCOE,W.CLARKE,DR.		64 PR		64 PR
HAMILTON BROTHERS EXPLORATION CO.					
HAMILTON BROTHERS,INC.	HAMILTON,FREDERIC C.	CHAIR.OF BOARD	69 PR		71 PR
HAMILTON BROTHERS,INC.	HAMILTON,FERRIS F.	PRESIDENT	69 PR		71 PR
HAMILTON BROTHERS OIL CO.					
HAMILTON BROTHERS,INC.	HAMILTON,FREDERIC C.	CHAIR.OF BOARD	69 PR	PRESIDENT	
HAMILTON BROTHERS,INC.	HAMILTON,FERRIS F.	PRESIDENT	69 PR	EXEC.VICE PRESIDENT	
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
HAMMAR PETROLEUM CO.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
HANLEY CO.,BRADFORD,PA.					
FOREST OIL CORP.	DORN,DALE H.	CHAIR.OF BOARD	64 PR		65 PR
HANNA BARBERA PRODUCTIONS					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		62 62
HANNA MINING CO.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR	CHAIR.OF BOARD	
MONSANTO COMPANY	HOOVER,ROBERT JR.		58 69		
GULF OIL CORPORATION	WYCKOFF,GEORGE W.		64 68		66 PR
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR		59 PR
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		59 PR
HARDIE'S WAGNER MARINE SPLY					
LOUISIANA LAND & EXPLOR.	HARDIE,EBEN		63 PR	VICE PRESIDENT TREASURER	
HARLEM SAVINGS BANK					
CITIES SERVICE CO.	EKHOLM,WESLEY C.	EXEC.VICE PRESIDENT	71 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
HARRIS TRUST & SAVINGS BANK					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		63 PR
HARRIS-INTERTYPE CORP.					
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		71 PR
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
DIAMOND SHAMROCK OIL & GAS	SHEPARD,HORACE A.		67 PR		
HARRIS,UPHAM & CO.,INC.					
TEXACO,INC.	HARRIS,HENRY U.		35 73	CHAIR.OF BOARD	
TENNECO INC.	HARRIS,HENRY U. JR.		68 74	PRESIDENT	
HART SCHAFFNER & MARX					
GEN AMER. OIL CO. OF TEXAS	CONLEY,PAUL A.				65 PR
HARTE & CO.,INC.					
DIAMOND SHAMROCK OIL & GAS	STRAUSS,FRED S.		66 PR	PRESIDENT	
HARTFIELD LEASING LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
HARTLEY GIL,INC.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		64 PR
HARVARD BUS.SCHL CLUB OF CLEVELAND					
STANDARD OIL CO. OF OHIO	ELLIOTT,SAMUEL H.		49 66		
HARVARD BUSINESS SCHOOL					
EXXON CORP.	MORGENS,HOWARD J.		67 69		68 68
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		68 70
HARVARD BUSINESS SCHOOL ASSOC.					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		68 71
HARVARD BUSINESS SCHOOL CLUB OF NY					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		51 69
HARVARD COLLEGE					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR	TRUSTEE	59 65
HARVARD UNIV.,BD. OF OVERSEERS					
EXXON CORP.	PIERCY,GEORGE T.		66 PR		70 73
EXXON CORP.	LEARSON,T. VINCENT		69 PR		69 72
HARVEST HOUST,INC.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
HAWLEY COAL MINING CORP.					
BELCO PETROLEUM CO	JOSEPH,MARK R.		69 PR	PRESIDENT	
HAYES INDUSTRIES					
CONTINENTAL OIL CO.	LAWRENCE,ARTHUR B.		69		42 69

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
HAYES-ALBION CORP.					
TESORO PETROLEUM CORP.	CARTER,COLLINS L.			CHAIR.OF BOARD	67
HEAD SKI COMPANY, INC.					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
HEALTH & WEL.COUNCIL OF MET.ST.LOUIS					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
HEALTH CARE AT HOME,INC.					
STD OIL CO. OF INDIANA	TURNER,J. HOWELL		59 65		70 PR
HEALTH INSURANCE PLAN OF GRTR NY					
CITIES SERVICE CO.	HEYMAN,DAVID M.		63 66	HONORARY CHAIRMAN	
HEALTH RESEARCH AND SERVICES FOUND					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		64 71
HECHT,HADFIELD,HAYS,LANDSMAN & HEAD					
GETTY OIL COMPANY	HAYS,C.LANSING JR.		61 PR	PARTNER	46 PR
HELMING BROTHERS,INC.					
ASHLAND OIL, INC.	REIGELUTH,ROBERT S.		68 PR		
HENDRIX COLLEGE					
MURPHY OIL CO.	MURPHY,C.H. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	50 PR	TRUSTEE	65 PR
HENRY CLAY MEM. FDN.					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
HENRY L.& GRACE DOHERTY CHAR. FDN.					
CITIES SERVICE CO.	BROWN,WALTER L.		41 72		
HERBERT HOOVER FOUNDATION,INC.					
MONSANTO COMPANY	QUEENN,EDGAR M.	CHAIR.OF BOARD	19 68		
HERCULES INC.					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
HERRIN-GEAR CHEVROLET					
GEN AMER. OIL CO. OF TEXAS	GEAR,GEORGE A.		PR		68 PR
HEWLETT PACKARD CO.					
STANDARD OIL CO.OF CALIF.	PACKARD,DAVID			CHAIR.OF BOARD	72 PR
STANDARD OIL CO.OF CALIF.	PACKARD,DAVID			CHAIR.OF BOARD	64 69
HIBERNIA NATL BANK IN N.O.					
LOUISIANA LAND & EXPLOR.	GRAHAM,FORD M.	CHAIR.OF EXEC.COMM.	60 PR		69 PR
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			65 PR
HIGHWAY USERS FED.FOR SAFE.&MOBILITY					
STANDARD OIL CO. OF OHIO	WHITEHOUSE,ALTON W.JR.	PRESIDENT	67 PR		71 PR
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		70 PR
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		70 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GULF OIL CORPORATION	DAVIS,I.G.		64 73	TRUSTEE	62 73
HIGHWAY USERS FEDERATION					
MARATHON OIL COMPANY	YOUNG,GRANT H.	CHAIR.OF EXEC.COMM.	63 73		
GULF OIL CORPORATION	LEE,JAMES E.		73 PR		73 PR
HIGHWAY USERS FOUNDATION					
MARATHON OIL COMPANY	HOOPMAN,HAROLD D.	PRESIDENT	72 PR		73 PR
HILL FOUNDATION,DALLAS					
HUNT OIL CO.	HILL,A.G.		70 PR		64 PR
HILL-MESA REALTY & DEV.CORP.,DALLAS					
HUNT OIL CO.	HILL,A.G.		70 PR		64 PR
HILLCREST MEDICAL CENTER					
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR	TRUSTEE	61 73
PENNZOIL CO.	BOVAIRD,DAVIS D.		68 68		64 71
HILLCREST PROPERTIES,INC.					
FLETCHER OIL & REFINING CO	FLETCHER,WILFRED D.	SECRETARY TREASURER			66 74
FLETCHER OIL & REFINING CO	FLETCHER,ROBERT G.	PRESIDENT			66 74
FLETCHER OIL & REFINING CO	FLETCHER,DANIEL S.				66 74
HILTON HOTELS CORP.					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		
HILTON INNS,INC.					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		
HIRAM COLLEGE					
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65	TRUSTEE	
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR	TRUSTEE	65 PR
HOCHSCHILD FOUNDATION					
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR	TRUSTEE	
HOLIDAY HILLS YMCA OF GREATER NY					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR	TRUSTEE	69 74
HOLIDAY INNS,INC.					
MURPHY OIL CO.	OWEN,RALPH		60 PR		
MURPHY OIL CO.	MORGAN,ALLEN		73 PR		
HOLLANDSCHE BETON GROEP N.V.					
CITIES SERVICE CO.	VAN MARKEN,EVERT P.		69 PR		
HOLLINGER NORTH SHORE EXPLOR.CO. LTD					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		61 PR
HOLLYWOOD BOWL ASSOC.					
GETTY OIL COMPANY	TOPPING,DR. NORMAN		70 PR	FMR PRESIDENT	
HOLLYWOOD TURF CLUB					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TEXACO,INC.	HARRIS,HENRY U.		35 73		72 74
KERR-MCGEE CORP.	JORGENSEN,EARLE M.		67 PR		65 PR
HOLT RENFROW & CO.,LTD.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		64 68
HOLY CROSS COLLEGE					
UNION TEXAS PETROLEUM	GIBLIN,E.BURKE		73 PR	TRUSTEE	
HOME CAPITAL FUNDS,INC.					
TENNECO INC.	HANCOCK,THOMAS		72 74		PR
HOME INS CO.					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71		
HOME LIFE EQUITY FUND,SUBSID.OF					
OCCIDENTAL PETROLEUM CORP.	CAVERLY,ROBERT J.	EXEC.VICE PRESIDENT	72 PR		71
HOME LIFE INSURANCE CO.					
UNION TEXAS PETROLEUM	MINTON,HENRY M.		4 97		
HOME SAVINGS AND LOAN-ODESSA					
EL PASO NATURAL GAS CO	NOEL,W.D.				59 64
HOMEOWNERS OF SOUTH WESTWOOD					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR		68 PR
HONEYWELL,INC.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		62 PR
HOOKER CHEMICAL CO.					
OCCIDENTAL PETROLEUM CORP.	WILLERS,T.F.	VICE-CHAIR.OF BOARD	68 71	PRESIDENT	
OCCIDENTAL PETROLEUM CORP.	GATED,A.P.		73 PR	EXEC.VICE PRESIDENT	
OCCIDENTAL PETROLEUM CORP.	BRYANT,F.L.		68 70	CHAIR.OF BOARD	
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR		37 68
HOOKER CORP.LTD.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
HOOKER,ALLEY & DUNCAN,ATTORNEYS					
PANHANDLE ESTRN PIPE LN.CO	ALLEY,JAMES B.		63 70		
HOOSIER COAL & OIL CO.,INC.					
ROCK ISLAND REFINERY CORP.	WINKLER,L.E.	PRESIDENT	64 70		64 71
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		64 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 73
HOOVER BALL & BEARING CO.					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
HOOVER INST.ON WAR,REVOLUTION,&PEACE					
MOBIL OIL CORPORATION	SCHMIDT,HERMAN J.	VICE-CHAIR.OF BOARD EXEC.VICE PRESIDENT	57 PR		PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
HOOVER INSTITUTION,ADV. BOARD					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		69 PR
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		67 PR
HOPKINS,SUTTER,OWEN,MULROY, & DAVIS					
TENNECO INC.	WILSON,CHRISTOPHER W.		70 74	GENERAL COUNSEL	
HORACE KELLY ART FDN.					
OCCIDENTAL PETROLEUM CORP.	VAIL,HERMAN L.	ATTORNEY	68 PR	TRUSTEE	
HORIZON HOUSE OF NAPLES,INC.					
FOREST OIL CORP.	WOLFE,JAMES D.		64 73		73 PR
HOSPITAL CORP. OF AMERICA					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR		
HOSPITAL OF THE GOOD SAMARITAN					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	TRUSTEE	
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR	VICE PRESIDENT	
HOSPITAL SERVICES,INC.					
MARATHON OIL COMPANY	GRAHAM,ELMER A.	VICE PRESIDENT	73 PR		71 73
HOSPITALITY MOTOR INNS,INC.					
STANDARD OIL CO. OF OHIO	STEVENS,DONALD G.	SR.VICE PRESIDENT	68 PR		
HOTEL LINCOLN-ODESSA					
EL PASO NATURAL GAS CO	NOEL,W.D.				50 67
HOTEL-WALDORF ASTORIA					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		
HOUBIGANT,INC.					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		73 PR
HOUSEHOLD FINANCE CORP.					
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR	CHAIR.OF EXEC.COMM.	67 PR
HOUSTON CHAMBER OF COMMERCE					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			69 75
HOUSTON CHEMICAL CO.					
MESA PETROLEUM COMPANY	YOUNG,THOMAS R.		64 68	VICE PRESIDENT	
HOUSTON NATIONAL BANK					
TENNECO INC.	SCHLENKER,IRVIN M.		70 71		71
TENNECO INC.	MACKIN,B.JOHN		72 74		PR
TENNECO INC.	HAMILTON,CHARLES W.		59 71	CHAIR.OF BOARD	
HOUSTON NATURAL GAS CORP.					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		69 PR
HOUSTON RESEARCH INST.,INC.					
MURPHY OIL CO.	SEARLS,DAVID T.		69 73		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
HOUSTON SYMPHONY SOCIETY					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			68 PR
HOWARD SWINK ADVT.,INC.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
HUDSON LEASEHOLDS,INC.					
GEN AMER. OIL CO. OF TEXAS	CONLEY,PAUL A.				60 72
HUDSON'S BAY OIL & GAS CO.,LTD.					
CONTINENTAL OIL CO.	TARKINGTON,A.W.	CONSULTANT			64 PR
CONTINENTAL OIL CO.	ROYDS,JAMES S.	SR.VICE PRESIDENT	69 PR		68 PR
CONTINENTAL OIL CO.	CRAM,IRA H.		52 66		50 66
HUGH BREEDING CO.NKA ELLEX TRANSP.CO					
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		73 PR
HUGOTON PRODUCTION CO.					
MESA PETROLEUM COMPANY	ANDERSON,LESTER A.		69 71	VICE PRESIDENT	
HUNDRED CLUB					
HAMILTON BROTHERS,INC.	HAMILTON,FERRIS F.	PRESIDENT	69 PR		69 PR
HUNT INTNL PETROLEUM CORP.,DALLAS					
HUNT OIL CO.	BEEMAN,W.B.	TREASURER SECRETARY	64 PR		69 PR
HUNT INVESTMENT CORP.,DALLAS					
HUNT OIL CO.	HUNT,RAY L.	VICE PRESIDENT	70 PR		66 PR
HUNTINGTON LIBRARY					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR		
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71	TRUSTEE	
HUSKY LEASEBACKS LTD.					
HUSKY OIL LIMITED	LARSEN,ARNOLD		69 74		
HUSKY OIL CO.OF DELAWARE					
HUSKY OIL LIMITED	NIELSON,JAMES E.	PRESIDENT	71 PR	PRESIDENT	
HUSKY OIL LIMITED	NIELSON,GLENN E.	CHAIR.OF BOARD	53 PR	CHAIR.OF BOARD	
HUSKY OIL LIMITED	LARSEN,ARNOLD		69 74	SR.VICE PRESIDENT	
HUSKY OIL LIMITED	HERSBERGER,ARTHER BUCHER		69 71	EXEC.VICE PRESIDENT	69 71
HUSKY OIL OPERS.LTD.					
HUSKY OIL LIMITED	NIELSON,JAMES E.	PRESIDENT	71 PR	PRESIDENT	
HUSKY OIL LIMITED	NIELSON,GLENN E.	CHAIR.OF BOARD	53 PR	CHAIR.OF BOARD	
HUSKY OIL LIMITED	LARSEN,ARNOLD		69 74	SR.VICE PRESIDENT	
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
HUSSON COLLEGE,BANGOR,MAINE					
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69	TRUSTEE	
HUYCK CORP.					
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
HYSOL CORP.					
FELMONT OIL CORP.	RICHARDS,H. AMES JR.	SR.VICE PRESIDENT	67 PR		54 67
I.M.C. MAGNETICS					
TESORO PETROLEUM CORP.	WOHLSTETTER,CHARLES				51
I.P.A.A.					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			67 68
IBM CORP.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		73 PR
MOBIL OIL CORPORATION	WILLIAMS,ALBERT L.		60 PR		PR
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		73 73
EXXON CORP.	LEARSON,T. VINCENT		69 PR		69 74
CONTINENTAL OIL CO.	JONES,GILBERT E.			VICE-CHAIR.OF BOARD	70 PR
IBM WORLD TRADE CORP.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		67 71
CONTINENTAL OIL CO.	JONES,GILBERT E.				61 PR
IDAHO FIDELITY CORP.					
FLETCHER OIL & REFINING CO	FLETCHER,WILFRED D.	SECRETARY TREASURER			66 74
FLETCHER OIL & REFINING CO	FLETCHER,ROBERT G.	PRESIDENT			66 74
FLETCHER OIL & REFINING CO	FLETCHER,DANIEL S.				66 74
ILLINOIS BELL TELEPHONE CO.					
STD OIL CO. OF INDIANA	CAIN,GEORGE R.		68 72		64 72
ILLINOIS COAL OPERATORS ASSOC.					
STANDARD OIL CO. OF OHIO	BUCHANAN,DEWITT W. JR.		69 PR		
ILLINOIS INST. OF TECHNOLOGY					
STD OIL CO. OF INDIANA	MOORE,L. WILLIAM		61 70		64 70
ILLINOIS MANUFACTURERS ASSOC.					
STD OIL CO. OF INDIANA	YARRINGTON,BLAINE J.	EXEC.VICE PRESIDENT	70 PR		71 74
ILLINOIS MASONIC MEDICAL CENTER					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		69 71
ILLINOIS POWER CO.					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		55 PR
ILLINOIS STATE BANK OF CHICAGO					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		59 69
IMPORT MOTORS LTD.,INC.					
HAMILTON BROTHERS,INC.	SLUYTER,HOWARD R.		69 PR		69 PR
INA CORPORATION					
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR		
INDEP. COLLEGE FUNDS OF AMERICA,INC.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MOBIL OIL CORPORATION	MOORE,FRED H.		61 66	TRUSTEE	
INDEP. NATL GAS ASSOC.					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
INDEP.REFINERS ASSN.OF CALIF.					
LION OIL CO.	BROWN,T.P.				70 73
INDEPENDENT PETROLEUM ASSOC.OF AMER.					
TESORO PETROLEUM CORP.	WEST,ROBERT V. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		63 64
HUNT OIL CO.	CUNYUS,GEORGE	SR.VICE PRESIDENT	64 PR		64 PR
EXCHANGE OIL AND GAS CORP.	GOODWIN,ROBERT L.	PRESIDENT			73 74
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		70 PR
BELCO PETROLEUM CO.	BELFER,ROBERT A.	PRESIDENT	59 PR		72 PR
INDEPENDENT SCHOOLS TALENT SEARCH					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
INDIAN HEAD,INC.					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR	FMR CHAIR.OF BOARD CHAIR.OF FIN.COMM.	53 PR
INDIAN SPRING LAND CO.					
MONSANTO COMPANY	ROCKEFELLER,JAMES S.		66 73		
INDIANA MANUFACTURERS ASSOC.					
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		66 69
INDIANA NATL BANK,INDIANAPOLIS					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71		
INDIANAPOLIS CH. OF COMMERCE					
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 72
INDIANAPOLIS GOODWILL INDUSTRIES,INC					
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 73
INDUSTRIAL CONFERENCE BD.					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		73 PR
INDUSTRIAL LEASING CORP.					
STANDARD OIL CO. OF OHIO	WHITEHOUSE,ALTON W.JR.	PRESIDENT	67 PR		68 73
INDUSTRIAL LOGISTICS CONSULTANTS INC					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		72 PR
INDUSTRIAL-AMERICA CORP.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR	FMR VICE PRESIDENT	PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
INDUSTRY EDUCATION COUNCIL					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	TRUSTEE	
INFO. & STUDIES CTR OF EUR.COM.MKT.					
EXXON CORP.	COLONNA DI PALIANO,GUIDO		71 PR	PRESIDENT	72 74
INFOREX,INC.					
DIAMOND SHAMROCK OIL & GAS	PERSONS,WALLACE R.		65 PR		
INGAA					
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		
INGLEWOOD FDN.					
MURPHY OIL CO.	KELLER,CHRISTOPH JR.		48 PR		
INGRAM CORP.					
MURPHY OIL CO.	O'NEILL,JAMES A. JR.		66 67		
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65		67 PR
MURPHY OIL CO.	INGRAM,F.B.		61 74	CHAIR.OF BOARD	
MURPHY OIL CO.	BROWN,BRUCE K.		60 71		
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR		68 PR
INLAND STEEL CO.					
STD OIL CO. OF INDIANA	LIVINGSTON,HOMER J.		56 70		58 70
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		68 PR
INLET OIL CO.					
CLARK OIL & REFINING CORP.	CRICHTON,JOHN A.		72 PR		71 PR
INMONT CORP.					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		62 PR
INST. FOR COURT MANAGEMT.					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		70 PR
INST. FOR INTNL EDUCATION					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	
EXXON CORP.	MILBRATH,ROBERT H.	TRUSTEE	69 73		73 73
APCO OIL CORP.	MCCOLLUM,L.FRANKLIN,JR.		72 PR		67 PR
INST.FOR EDUC. MANAGEMENT					
EXXON CORP.	PETERSON,MARTHA		74 PR		74 74
INST.OF PEACE,ADVISORY BOARD					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		50 54
INSTITUTE FOR THE FUTURE					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				72
INSTITUTE OF LIFE INSURANCE					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		73 PR
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		72 74
INSTITUTO DE CULTURA HISPANIA					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EXXON CORP.	HAIDER,MICHAEL L.		59 69		64 69
INSURANCE CO. OF NORTH AMERICA					
PANHANDLE ESTRN PIPE LN.CO	HERRON,S.DAVIDSON JR.		68 69	VICE PRESIDENT	
PANHANDLE ESTRN PIPE LN.CO	COONEY,PHILLIP H.		53 57		
CITIES SERVICE CO.	GATES,THOMAS S.		61 PR		
INT. MANAGEMENT & DEVELOPMENT INST.					
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		72 PR
INTER AMER. UNIV. OF PUERTO RICO					
COMMONWEALTH OIL REFINING	DESCARTES,SOL L.		61 PR	PRESIDENT	
INTER-INS. EXCHANGE					
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
INTERGO,CORP.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
INTERLAKE,INC.					
DIAMOND SHAMROCK OIL & GAS	SHERWIN,JOHN		69 73		
DIAMOND SHAMROCK OIL & GAS	BENSON,KEITH S.		69 71		
INTERMODAL TRANSPORT. SYSTEMS,INC.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
INTERSTATE BRANDS CORP.					
APCO OIL CORP.	ROSS,ARTHUR		68 PR		66 71
INTEXT					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		69 71
INTNL &COMPARATIVE LAW CTR,ADV.BOARD					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		69 PR
INTNL ASSOC.OF DRILLING CONTRACTORS					
LONE STAR GAS CO.	POOL,FRANK M.				
INTNL BASIC ECONOMY CORP.					
DIAMOND SHAMROCK OIL & GAS	DILWORTH,J. RICHARDSON		69 73		
INTNL CH. OF COMMERCE,U.S. COUNCIL					
TEXACO,INC.	GRANVILLE,MAURICE F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	70 PR		74 PR
STANDARD OIL CO. OF OHIO	SWENSRUD,SIDNEY A.	FMR VICE PRESIDENT	58 70		
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		73 PR
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		67 74
EXXON CORP.	CROSS,BERT S.		67 74		69 71
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.			TRUSTEE	56
INTNL CHAMBER OF COMMERCE					
MOBIL OIL CORPORATION	SCHMIDT,HERMAN J.	VICE-CHAIR.OF BOARD EXEC.VICE PRESIDENT	57 PR	TRUSTEE	PR
INTNL CONTROLS CORP.					

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PENNZOIL CO.	SHINN,ALLEN		70 PR		
INTNL COOP. PETROLEUM ASSN.					
FARMLAND INDUSTRIES,INC.	PETERSON,ALBERT		64 66		64 65
INTNL ENVIRONMENTAL EXPOSITION,INC.					
PHILLIPS PETROLEUM CO.	BROOKBY,HARRY D.	EXEC.VICE PRESIDENT	73 PR		74 PR
INTNL EXEC. SERVICE CORP.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
EXXON CORP.	MILBRATH,ROBERT H.	TRUSTEE	69 73		73 73
EXXON CORP.	BRISCO,MILO M.		66 72		70 72
CONTINENTAL OIL CO.	PACE,FRANK,JR.			PRESIDENT	
CHAMPLIN PETROLEUM CO.	BROWN,C.C.				
INTNL FARM SYSTEMS,INC.					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		72 73
INTNL HARVESTER CO.					
STD OIL CO. OF INDIANA	CAIN,GEORGE R.		68 72		60 72
INTNL HOUSE					
MOBIL OIL CORPORATION	SCHMIDT,HERMAN J.	VICE-CHAIR.OF BOARD EXEC.VICE PRESIDENT	57 PR	TRUSTEE	PR
CONTINENTAL OIL CO.	JONES,GILBERT E.			TRUSTEE	64 PR
INTNL INST.OF RURAL RECONSTRUCTION					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		66 PR
INTNL INST.OF SYNTHETIC RUBBER PROD.					
PHILLIPS PETROLEUM CO.	CUBBAGE,T.L.	VICE PRESIDENT	68 71		68 71
INTNL INSURANCE AGENCY,INC.					
EL PASO NATURAL GAS CO	SHINN,PHILLIP M.				73 PR
EL PASO NATURAL GAS CO	NELSON,RICHARD R. JR.				73 74
EL PASO NATURAL GAS CO	ELLIOTT,JACK S.				73 PR
EL PASO NATURAL GAS CO	BOWMAN,FRANK				74 PR
EL PASO NATURAL GAS CO	BIRKELO,JAMES				73 PR
EL PASO NATURAL GAS CO	BENSCOTER,DON				74 PR
INTNL IRON & STEEL INSTITUTE					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		67 69
INTNL MINERALS & CHEMICAL CORP.					
CHAMPLIN PETROLEUM CO.	TAYLOR,V.F. JR.				
INTNL MINING CORP.					
HAMILTON BROTHERS,INC.	HAMILTON,FREDERIC C.	CHAIR.OF BOARD	69 PR		74 PR
INTNL MONETARY CONFERENCE					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
INTNL NICKEL CO. OF CANADA, LTD.					
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		69 74

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
INTNL OCEANOGRAPHIC FDN.					
EL PASO NATURAL GAS CO	GLASSELL,ALFRED C. JR.		57 PR	TRUSTEE	
INTNL OIL & GAS EDUC.CTR,ADV.BOARD					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		67 PR
GETTY OIL COMPANY	KELLIHER,THOMAS G.	FMR VICE PRESIDENT MANAGING DIRECTOR	67 70	VICE-CHAIR.OF BOARD	
INTNL PAPER CO.					
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		68 69
INTNL PETROL. EXPOS. & CONGRESS,INC.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
GULF OIL CORPORATION	LEE,JAMES E.		73 PR		73 PR
INTNL POETRY FORUM					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
INTNL RESEARCH ASSOC. INC.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		70 73
INTNL SILVER CO.					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		63 66
INTNL SPEEDWAY CORP.					
UNION OIL CO. OF CALIF.	MCCONNOR,WILLIAM S.	SR.VICE PRESIDENT	73 PR		70 PR
UNION OIL CO. OF CALIF.	HARTLEY,FRED L.	CHAIR.OF BOARD PRESIDENT	60 PR		68 PR
INTNL STUDENT CENTER INC.					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR		61 68
INTNL TEL.&TEL. CORP.					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR		
STANDARD OIL CO.OF CALIF.	MCCONE,JOHN A.				
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		47 PR
INTNL TELECOMPUTER NETWORK,INC.					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		69 70
INVERSIONES DE LA CORDILLERA,S.A.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		68 PR
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		68 PR
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		68 PR
INVESTMENT CO. OF AMERICA					
MONSANTO COMPANY	HOOVER,ROBERT JR.		58 69		
KERR-MCGEE CORP.	COLEFAX,PETER		67 PR		72 PR
INVESTMENT TRUST OF BOSTON					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
INVESTMENTS MANAGEMENT CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
INVESTORS DIVERS.SERV.OF MINNEAPOLIS					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
INVESTORS MUTUAL					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
INVESTORS SELECTIVE					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
INVESTORS STOCK					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
INVESTORS THRIFT					
BEACON OIL CO.	MARCONI,W.L.	PRESIDENT			64 PR
INVESTORS VARIABLE PAYMENT					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
INVSTMT.BNKRS ASSN.OF AMER.,REG.COMM					
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR	CHAIR.OF BOARD	
IPL,INC.					
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				62 69
IRON ORE CO. OF CANADA					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		66 PR
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
IRVING TRUST CO.					
CHAMPLIN PETROLEUM CO.	MITCHELL,H.B.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
ISABELLA CO. STATE BANK					
TOTAL LEONARD,INC.	MORROW,E. ALLAN	VICE PRESIDENT	55 70		64 PR
ISI CORP.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
ISLAND CREEK COAL(NOW OCCID.PETROL.)					
APCO OIL CORP.	ROSS,ARTHUR		68 PR		67
ISLAND PROPERTIES,INC.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
ISOTOPES,INC.					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
IVORY & SIME					
PENNZOIL CO.	GAMMELL,JAMES G.S.		68 PR	PARTNER	
J & L CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
J.G. BOSWELL CO.					
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
J.H. FOSTER & CO.					
CITIES SERVICE CO.	BAM,FOSTER		73 PR		
J.HENRY SCHRODER BANKING CORP.					
MOBIL OIL CORPORATION	WILLIAMS,ALBERT L.		60 PR		PR
J.P. MORGAN & CO.,INC.					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		69 PR
EXXON CORP.	COLLADO,EMILIO G.		60 PR		70 74
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		69
CITIES SERVICE CO.	GATES,THOMAS S.		61 PR		
J.P. STEVENS & CO.					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		73 PR
J.R. BUTLER & CO.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 PR
JACINTO,INC.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		64 66
JACKSON CITY BANK & TRUST CO,MICH.					
TESORO PETROLEUM CORP.	CARTER,COLLINS L.				50
JACKSON,WALKER,WINSTEAD,ET AL.					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR	ATTORNEY PARTNER	
JACKSONVILLE EPISCOPAL HIGH SCHOOL					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR	TRUSTEE	68 PR
JACKSONVILLE ZOOLOGICAL SOC.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR		71 PR
JAMES A. LEWIS ENGINEERING,INC.					
HUSKY OIL LIMITED	ROARK,GENE EDWARD	FMR PRESIDENT	64 72	FMR PRESIDENT	
JAMES IRVINE FDN.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
JAPAN FUNDS,INC.					
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR		69 PR
JAPAN SOCIETY					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
JAY F. ZOOK,INC.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		69 70
DIAMOND SHAMROCK OIL & GAS	BARNES,J. DAVID		71 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
JEFFERSON INS.CO OF N.Y.					
APCO OIL CORP.	ROSS,ARTHUR		68 PR		58 PR
JENNEY OIL CO.,INC.					
HAMILTON BROTHERS,INC.	JENNY,ROBERT M.		69 PR	PRESIDENT	
JERROLD CORP.,THE					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		63 64
JEWISH COMMUNITY FDN.OF JEWISH FED.					
OCCIDENTAL PETROLEUM CORP.	GROMAN,ARTHUR	ATTORNEY	57 PR	TRUSTEE	
JIM WALTER INVESTORS					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		72 PR
JOBST INST.,INC.					
UNION OIL CO. OF CALIF.	MCCONNOR,WILLIAM S.	SR.VICE PRESIDENT	73 PR		69 PR
JOHN CRERAR LIBRARY					
STD OIL CO. OF INDIANA	WRIGHT,JOSEPH S.		66 PR	TRUSTEE	65 PR
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		61 PR
JOHN F. KENNEDY LIBRARY CORP.					
UNION TEXAS PETROLEUM	MEYER,ANDRE		67 71	TRUSTEE	
JOHN HANCOCK MUTUAL LIFE INS. CO.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		55 70
JOHNS HOPKINS U SCHOOL OF ADV. STUD.					
MOBIL OIL CORPORATION	MCGHEE,GEORGE C.		69 PR	TRUSTEE	
JOHNSON CITY BANK					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			71 PR
JOINT COUNCIL ON ECONOMIC EDUCATION					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		70 73
EXXON CORP.	GARVIN,CLIFFORD C. JR.				71 73
JONES & LAUGHLIN STEEL CORP.					
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		47 70
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		57 71
JONES,DAY,COCKLEY, & REAVIS					
DIAMOND SHAMROCK OIL & GAS	REAVIS,JOHN W.		64 72	PARTNER	
JOY INTERNATIONAL SA					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		63 72
JOY MANUFACTURING CO.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		62 PR
JOY MANUFACTURING CO. FOUNDATION					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		68 PR
JOY MANUFACTURING SALES LTD.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		72 74
JOY TRADING CORP.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		63 72
JR. ACHIEVEMT OF GRTR OKLA. CITY,INC					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			67 71
KERR-MCGEE CORP.	LOVE,F.C.		65 PR	TRUSTEE	69 71
JUNIATA COLLEGE					
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65	TRUSTEE	
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR	TRUSTEE	69 PR
JUNIOR ACHIEVEMENT OF MISS.VAL. AREA					
MONSANTO COMPANY	MUELLER,ROBERT K.	VICE PRESIDENT	61 68		
MONSANTO COMPANY	BIBLE,HAROLD		69 PR		
JUNIOR ACHIEVEMENT,INC.					
MONSANTO COMPANY	BIBLE,HAROLD		69 PR		
JUNIOR ACHIEVEMT,HARRIS CITY					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			71 73
JUNIOR ACHIEVEMT,INC.,NATL.					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			71 73
JUNIOR LEAGUE OF PITTSBURGH,INC.					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
JUPITER CORP.					
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		63 68
JUSTICE MORTGAGE INVESTORS					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
K & E DRILLING,INC.,WICHITA					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR	CHAIR.OF BOARD	
K & S METAL SUPPLY,INC.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
KAISER ALUMINUM & CHEMICAL CORP.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
SHELL OIL COMPANY	STERLING,J.E.WALLACE		68 PR		
KAISER INDUSTRIES CORP.					
MARATHON OIL COMPANY	LAND,JAMES N. JR.		73 PR		
KAISER STEEL CORP.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
KALAMAZOO COLLEGE					
EXXON CORP.	STINEBOWER,LEROY D.		63 69		65 69

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
KALUAKOI CORP. LOUISIANA LAND & EXPLOR.	LANGHETEE,E.J. JR	VICE-CHAIR.OF BOARD	71 PR		69 PR
KANEB PIPE LINE CO. MURPHY OIL CO.	SEARLS,DAVID T.		69 73		
KANSAS CITY CHIEFS FOOTBALL CLUB HUNT OIL CO.	CUNYUS,GEORGE	SR.VICE PRESIDENT	64 PR		64 PR
KANSAS CITY POWER & LIGHT CO. CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
KANSAS DEVELOPMENT CREDIT CORP. CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		65 68
KANSAS UNIVERSITY ENDOWMENT ASSN. GULF OIL CORPORATION	DENTON,FRANK R.		59 71	TRUSTEE	54 PR
KASHAN LABORATORIES PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		72 74
KAWECKI BERYLCO INDUSTRIES,INC. COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
KEDCO CORP. CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		70 PR
KELSEY-HAYES CO. STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR		68 PR
KENNEBAC WATER POWER CO. CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
KENNECOTT COPPER CORPORATION GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
KENT COLLEGE MURPHY OIL CO.	KELLER,CHRISTOPH JR.		48 PR	TRUSTEE	
KENT PRODUCTS,INC. CLINTON OIL CO.	SMITH,JOHN J.		73 PR		64 PR
KENTUCKY AMERICAN WATER CO. ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
KENTUCKY UTILITIES ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
KEONI,INC.-KAILUA-KONA,HAWAII EL PASO NATURAL GAS CO	NOEL,W.D.				68 PR
KERA-TV AREA EDUC. TV FDN. LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
KERN COUNTY LAND CO.					
TENNECO INC.	COCHRAN,DWIGHT M.	SR.VICE PRESIDENT	67 68	PRESIDENT	
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.				67 68
KERR FOUNDATION					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR	TRUSTEE	65 PR
KERR-MCGEE CORP.					
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65		
KETCHIKAN PULP CO.					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		
MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR		72 PR
KEY ISLAND,INC.					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR
KIDDER,PEABODY					
DIAMOND SHAMROCK OIL & GAS	EVANS,WILLIAM H.		64 70		
KIERANS,KISILENKO & GUAY					
SOUTHWSTRN OIL & REFINING	GUAY,PIERRE J.		65 69		
KILROY DRILLING & PROD.CO.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		60 62
KIMBERLY-CLARK CORP.					
MONSANTO COMPANY	ROCKEFELLER,JAMES S.		66 73		
KINKAID SCHOOL,HOUSTON					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR	TRUSTEE	66 PR
KIOGA					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		53 PR
KIRBY INDUSTRIES,INC.					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		57 PR
KMID-TV					
EL PASO NATURAL GAS CO	NOEL,W.D.				53 PR
KMS INDUSTRIES,INC.					
BURMAH OIL INC.	ROBERTS,M.J.	PRESIDENT	72 PR		
KNOB HILL MINES,INC.					
EXCHANGE OIL AND GAS CORP.	KUECHLER,HENRY N. 3RD			VICE PRESIDENT TREASURER	63 PR
KOCH INDUSTRIES					
ROCK ISLAND REFINERY CORP.	SIMMONS,M.L.		66 PR		66 PR
KOPPER CO.,INC.					
LONE STAR GAS CO.	COCHRAN,T.C. JR.		58 PR	VICE PRESIDENT	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR	GENERAL COUNSEL	64 PR
KOREA EXCH. BANK OF CALIF.					
UNION OIL CO. OF CALIF.	PARKER,CHARLES F.	SR.VICE PRESIDENT	63 PR		74 PR
KOREAN CULTURAL & FREEDOM FDN.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		64 66
KRAFTCO CORP.					
CITIES SERVICE CO.	MCGILLICUDDY,JOHN F.		70 PR		
KROGER CO.					
TENNECO INC.	HALL,JOSEPH B.		63 70	FMR CHAIR.OF BOARD	
KUHLMAN CORP.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
KUHN,LOEB & CO.					
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR	PARTNER	
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR	PARTNER	
BURMAH OIL INC.	FRIEDMAN,A.E.		71 74	PARTNER	
LA. TECH ENGINEERING FOUNDATION,INC.					
GULF OIL CORPORATION	LEE,JAMES E.		73 PR		73 PR
LABRADOR MINING & EXPLOR.CO.LTD.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		50 PR
LAFAYETTE CLUB					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
LAFAYETTE COLLEGE					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
LAKEWOOD HOSPITAL					
STANDARD OIL CO. OF OHIO	ROSS,JOHN L.	SR.VICE PRESIDENT	70 PR		
LAMAR LIFE INS. CO.					
SOUTHLAND OIL CO.	MOUNGER,WILLIAM H.		64 66		
HAMILTON BROTHERS,INC.	SLUYTER,HOWARD R.		69 PR		69 PR
AMERADA HESS CORP.	HEARIN,ROBERT M.		69		
LAND O' LAKES,INC.					
NATL COOP. REFINERY ASSN	HOFSTAD,RALPH		67 PR	PRESIDENT	
LANE WOOD & CO.					
HAMILTON BROTHERS,INC.	SLUYTER,HOWARD R.		69 PR		69 PR
LARWIN CORP.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		69 70
LAWRENCE ACADEMY,GROTON,MASS.					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR	TRUSTEE	73 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
LAWRENCEVILLE SCHOOL					
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR	TRUSTEE	PR
LAWTON COCA-COLA BOTTLING,LAWTON,OK.					
ASHLAND OIL, INC.	ROSS,F.H. JR.		71 PR		
LAZARD BROTHERS CO. LTD.					
UNION TEXAS PETROLEUM	MEYER,ANDRE		67 71		
LAZARD FRERES & CO.					
UNION TEXAS PETROLEUM	MEYER,ANDRE		67 71	PARTNER	
LAZARD FRERES INTERNATIONAL CORP.					
UNION TEXAS PETROLEUM	ELLSWORTH,ROBERT		72 PR	CHIEF EXEC.OFFICER PRESIDENT	
LAZARD FUND,INC.					
MONSANTO COMPANY	TEMPLE,ALAN H.		59 66		
LEHIGH PORTLAND CEMENT CO.					
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
LEHIGH UNIV.,BD. OF TRUSTEES					
EXXON CORP.	RATHBONE,MONROE J.		49 65	PRESIDENT	64 64
LEHMAN BROS.					
TOTAL LEONARD,INC.	GLANVILLE,JAMES W.		66 70	MANAGING DIRECTOR	
STANDARD OIL CO.OF CALIF.	BALL,GEORGE W.				
SHELL OIL COMPANY	BLACKIE,WILLIAM		64 PR		
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65	PARTNER	
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR	MANAGING DIRECTOR	
HUSKY OIL LIMITED	GLANVILLE,JAMES WILLIAM		69 72	PARTNER	
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR	MANAGING DIRECTOR PARTNER	
APCO OIL CORP.	GLANVILLE,JAMES W.	PARTNER	63 67		
LEHMAN BROS. INTNL LTD.					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
LEHMAN BROS.& RESIDUAL VENTURES					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR	PARTNER	
LEHMAN BROTHERS,NEW YORK,N.Y.					
UNION TEXAS PETROLEUM	CLAY,LUCIUS D.		62 70	PARTNER	
LEHMAN CORP.					
DIAMOND SHAMROCK OIL & GAS	REAVIS,JOHN W.		64 72		
LEIGH A. WILSON & ASSOC.,INC.					
STD OIL CO. OF INDIANA	TURNER,J. HOWELL		59 65		74 PR
LEISURE ENTERPRISES					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		68 PR

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
LEISY CO.					
STANDARD OIL CO. OF OHIO	WHITEHOUSE,ALTON W.JR.	PRESIDENT	67 PR		68 72
LETOT,INC.					
CITIES SERVICE CO.	BAM,FOSTER		73 PR		
LEVER BROTHERS CO.					
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
CHAMPLIN PETROLEUM CO.	PLACE,J.B.M.	CHAIR.OF BOARD PRESIDENT			
LEVERAGE FUND OF BOSTON,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		67 71
LEXINGTON FAYETTE FDN.					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
LEXINGTON FED. SAVINGS AND LOAN					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
LEXINGTON INDUSTRIAL FDN.					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
LEXINGTON TROTS BREEDERS' ASSOC.					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
LIBBEY-OWENS-FORD CO.					
MARATHON OIL COMPANY	WINGERTER,ROBERT G.		74 PR	PRESIDENT CHIEF EXEC.OFFICER	
MARATHON OIL COMPANY	DONNELL,JAMES C. II	CHAIR.OF BOARD	36 PR		70 PR
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR		73 PR
LIBERIA CO.					
LION OIL CO.	LEVIN,N.W.				48 PR
LIBERIA MINING CO.,LTD.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
LIBERIAN DEV.CORP.					
LION OIL CO.	LEVIN,N.W.				48 PR
LIBERTY FINANCIAL CORP.					
KERR-MCGEE CORP.	PARKS,GEORGE B.	EXEC.VICE PRESIDENT	72 PR		73 PR
LIBERTY MUTUAL FIRE INSURANCE CO.					
MONSANTO COMPANY	SOMMER,CHARLES H.	CHAIR.OF BOARD	59 PR		
LIBERTY MUTUAL LIFE INSURANCE CO.					
MONSANTO COMPANY	SOMMER,CHARLES H.	CHAIR.OF BOARD	59 PR		
LIBERTY NATL BANK & TRUST CO.					
KERR-MCGEE CORP.	PARKS,GEORGE B.	EXEC.VICE PRESIDENT	72 PR		73 PR
LIBERTY NATL CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
KERR-MCGEE CORP.	PARKS,GEORGE B.	EXEC.VICE PRESIDENT	72 PR		73 PR
LIBERTY NATL CORP. OF OKLA. CITY					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 73
LIBERTY NL BK & TRST CO OF OK. CITY					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 73
LIFE & CASUALTY CO. OF TENN.					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		59 PR
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
LIFE ASSUR. CO.OF PA.					
TEXAS OIL & GAS CO.	BOYCE,RAYMOND		56 70		63 70
LIFE COS.,INC.					
HAMILTON BROTHERS,INC.	SLUYTER,HOWARD R.		69 PR		69 PR
LIFE INS. ASSOC. OF AMER.					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR	CHAIR.OF BOARD	72 72
LIFE LINE FOUNDATION,DALLAS,TEXAS					
HUNT OIL CO.	HUNT,H.L.	CHAIR.OF BOARD PRESIDENT	64 PR		64 PR
LIFE OF AMERICA INSURANCE CO.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.			PRESIDENT	
LIGGETT & MYERS, INC.					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		63 PR
LILLY ENDOWMENT,INC.					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		72 PR
LINCOLN CONSOLIDATED					
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.				67 72
LINCOLN NATL CORP.					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
LING TEMCO VOUGHT CORP.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
LIONEL D. EDIE CAPITAL FUND INC.					
MOBIL OIL CORPORATION	JAMES,GEORGE F.		59 69		
LIQUID CARBONIC CANADIAN CORP.					
UNION TEXAS PETROLEUM	NOTMAN,J.GEOFFREY		58 73		
LITTON INDUSTRIES					
UNION OIL CO. OF CALIF.	THORNTON,CHARLES B.		62 72	CHAIR.OF BOARD	
GETTY OIL COMPANY	TOPPING,DR. NORMAN		70 PR		
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
LLOYD-SMITH CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FOREST OIL CORP.	WOLFE,JAMES D.		64 73		64 PR
LLOYDMINSTER GAS CO.LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
LOEB,RHOADES & CO.					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72	PARTNER	
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR	PARTNER	
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		
APCO OIL CORP.	MILLARD,MARK J.		61 PR	PARTNER	
LOEWI & CO.INC.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR	CONSULTANT	
LOGISTICS MANAGEMENT INST.					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR	TRUSTEE	63 65
LONE STAR ENERGY CO.					
LONE STAR GAS CO.	WILLIAMS,R.B.				70 PR
LONE STAR GAS CO.	SINGER,S.R.				70 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		70 71
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		70 PR
LONE STAR GAS CO.	PECK,G.F. JR.			VICE PRESIDENT	70 73
LONE STAR GAS CO.	NEAVES,C.L.			VICE PRESIDENT	70 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		70 PR
LONE STAR GAS CO.	HULCY,LOUIS B.				70 PR
LONE STAR GAS CO.	HALL,J.N.			VICE PRESIDENT	70 PR
LONE STAR GAS CO.	BRANSCOME,J.M.			VICE PRESIDENT	71 73
LONE STAR GAS CO.					
DIAMOND SHAMROCK OIL & GAS	BARNES,J. DAVID		71 PR		
LONE STAR GATHERING CO.					
LONE STAR GAS CO.	YONKERS,H.J.				68 70
LONE STAR GAS CO.	WILLIAMS,R.B.				70 PR
LONE STAR GAS CO.	SUTHERLAND,L.H.				68 72
LONE STAR GAS CO.	SKRABONEK,T.J.				65 68
LONE STAR GAS CO.	SINGER,S.R.				68 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		61 71
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		67 PR
LONE STAR GAS CO.	MERRITT,H.H.				68 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		68 PR
LONE STAR GAS CO.	LOCH,G.S.			VICE PRESIDENT	73 PR
LONE STAR GAS CO.	LILES,S.D.				64 69
LONE STAR GAS CO.	KING,S.H.			VICE PRESIDENT	73 PR
LONE STAR GAS CO.	KINDLE,JOHN M.				61 65
LONE STAR GAS CO.	JAMES,LOUIS G.	PRESIDENT	67 72	PRESIDENT	61 70
LONE STAR GAS CO.	HULCY,LOUIS B.				70 PR
LONE STAR GAS CO.	HULCY,D.A.	CHAIR.OF BOARD	52 67	CHAIR.OF BOARD	61 67
LONE STAR GAS CO.	HILL,CARL M.				62 64
LONE STAR GAS CO.	HARRISON,C.J.				69 71
LONE STAR GAS CO.	COLE,DAN M.				67 72
LONE STAR GAS CO.	BROWN,E.A.				61 6P

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
LONE STAR GAS CO.	BARNDT,CHARLES G.				68 72
LONE STAR NETHERLANDS,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				73 PR
LONE STAR GAS CO.	SINGER,S.R.				73 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				73 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		73 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		73 PR
LONE STAR GAS CO.	FOWLER,R.G.				73 PR
LONE STAR PRODUCING CO.					
LONE STAR GAS CO.	YONKERS,H.J.			VICE PRESIDENT	68 70
LONE STAR GAS CO.	WILLIAMS,R.B.			SR.VICE PRESIDENT	70 PR
LONE STAR GAS CO.	SUTHERLAND,L.H.			VICE PRESIDENT	68 PR
LONE STAR GAS CO.	SKRABONEK,T.J.			VICE PRESIDENT	65 68
LONE STAR GAS CO.	SINGER,S.R.			SR.VICE PRESIDENT	68 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.			SR.VICE PRESIDENT GENERAL COUNSEL	72 PR
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		44 71
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		67 PR
LONE STAR GAS CO.	MERRITT,H.H.			VICE PRESIDENT	68 73
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		68 PR
LONE STAR GAS CO.	LILES,S.D.			VICE PRESIDENT	64 69
LONE STAR GAS CO.	KINDLE,JOHN M.			VICE PRESIDENT	58 65
LONE STAR GAS CO.	JURY,ROY E.			VICE PRESIDENT	63 66
LONE STAR GAS CO.	JAMES,LOUIS G.	PRESIDENT	67 72	PRESIDENT	58 70
LONE STAR GAS CO.	HULCY,LOUIS B.			SR.VICE PRESIDENT	70 PR
LONE STAR GAS CO.	HULCY,D.A.	CHAIR.OF BOARD	52 67	CHAIR.OF BOARD	42 67
LONE STAR GAS CO.	HILL,CARL M.			VICE PRESIDENT	58 64
LONE STAR GAS CO.	HARRISON,C.J.			VICE PRESIDENT	69 71
LONE STAR GAS CO.	FOWLER,R.G.			VICE PRESIDENT	72 PR
LONE STAR GAS CO.	COVINGTON,G.M.			SR.VICE PRESIDENT	73 PR
LONE STAR GAS CO.	COLE,DAN M.			SR.VICE PRESIDENT	63 73
LONE STAR GAS CO.	BROWN,E.A.			VICE PRESIDENT	52 68
LONE STAR GAS CO.	BARNDT,CHARLES G.			VICE PRESIDENT	61 72
LONE STAR GAS CO.	BACON,THOMAS S.			VICE PRESIDENT	61 66
LONE STAR STEEL CO.					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		61 65
AMERICAN PETROFINA, INC.	WILSON,GEORGE A.		68 PR		
LONG ISLAND UNIV.					
EXXON CORP.	COLLADO,EMILIO G.		60 PR		65 72
LORAL CORP.					
PENNZOIL CO.	SHINN,ALLEN		70 PR		
LORETTO HILTON THEATRE,INC.					
MONSANTO COMPANY	SMITH,M.K. JR.		71 PR		
LOS ANGELES & SALT LAKE RAILROAD CO.					
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
LOS ANGELES BEAUTIFUL,INC.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD	57 PR		69 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		CHIEF EXEC.OFFICER			
LOS ANGELES CHAMBER OF COMMERCE					
GETTY OIL COMPANY	TOPPING,DR. NORMAN		70 PR		
LOS ANGELES CLEARING HOUSE ASSOC.					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	FMR PRESIDENT	
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71	FMR PRESIDENT	
LOS ANGELES CLUB					
GETTY OIL COMPANY	GETTY,E.PAUL	CHAIR.OF EXEC.COMM.	65 67		
LOS ANGELES CONVENTION BUREAU,INC.					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
LOS ANGELES COUNTY MUSEUM OF ART					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		73 PR
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR	TRUSTEE	68 PR
LOS ANGELES PETROLEUM CLUB					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		57 PR
LOUISIANA & SOUTHERN LIFE INS. CO.					
MURPHY OIL CO.	INGRAM,F.B.		61 74		
LOUISIANA LAND & EXPLOR.	PHILLIPS,JOHN G.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	62 PR		69 PR
LOUISIANA FRUIT CO,					
EXCHANGE OIL AND GAS CORP.	PHILLIPS,NATHANIEL P.				64 PR
LOUISIANA LAND OFFSHORE EXPL. CO.					
LOUISIANA LAND & EXPLOR.	LANGHETEE,E.J. JR	VICE-CHAIR.OF BOARD	71 PR		72 PR
LOUISIANA STATE FAIR					
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		68 74
LOUISIANA-PACIFIC CORP.					
GEN AMER. OIL CO. OF TEXAS	CONLEY,PAUL A.				73 74
LOUISVILLE & NASHVILLE RAILROAD CO.					
MONSANTO COMPANY	ECK,JOHN R.		69 PR		
MONSANTO COMPANY	CHRISTIAN,JOHN L.	SR.VICE PRESIDENT	60 68		
LOVERA PIPELINE CO.					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		73 PR
CLINTON OIL CO.	WASZKOWSKI,HENRY JR.		73 73		73 73
CLINTON OIL CO.	VOLK,RICHARD W.	PRESIDENT CHIEF EXEC.OFFICER	73 PR		73 PR
CLINTON OIL CO.	SMITH,JOHN J.		73 PR		73 PR
CLINTON OIL CO.	LUSK,WILLIAM E.		63 73		68 73
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR		73 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		73 PR
CLINTON OIL CO.	CRONIN,STEWART		70 71		70
CLINTON OIL CO.	CLINTON,REALTO P.	OWNER	63 73		68 73
CLINTON OIL CO.	BEDFORD,CHARLES F.		73 PR		73 PR
LOYOLA UNIV.,CITIZENS BOARD					
STD OIL CO. OF INDIANA	OSMENT,FRANK C.	EXEC.VICE PRESIDENT	68 PR		71 PR
LSG AUSTRALIA,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				72 PR
LONE STAR GAS CO.	SINGER,S.R.				72 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		72 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		72 PR
LONE STAR GAS CO.	FOWLER,R.G.				72 PR
LSG BOLIVIA,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				73 PR
LONE STAR GAS CO.	SINGER,S.R.				73 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				73 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		73 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		73 PR
LONE STAR GAS CO.	FOWLER,R.G.				73 PR
LSG CANADIAN EXPLORATION LTD.					
LONE STAR GAS CO.	WILLIAMS,R.B.				73 PR
LONE STAR GAS CO.	SINGER,S.R.				73 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				73 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		73 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		73 PR
LONE STAR GAS CO.	FOWLER,R.G.				73 PR
LSG DOMINION EXPLORATION,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				72 PR
LONE STAR GAS CO.	SINGER,S.R.				72 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		72 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		72 PR
LONE STAR GAS CO.	FOWLER,R.G.				72 PR
LSG GREECE,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				73 PR
LONE STAR GAS CO.	SINGER,S.R.				73 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				73 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		73 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		73 PR
LONE STAR GAS CO.	FOWLER,R.G.				73 PR
LSG INDIA,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				71 PR
LONE STAR GAS CO.	SINGER,S.R.				74 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				74 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		74 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		74 PR
LONE STAR GAS CO.	FOWLER,R.G.				74 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
LSG INTRAGAS,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				72 PR
LONE STAR GAS CO.	SINGER,S.R.				72 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		72 PR
LONE STAR GAS CO.	MERRITT,H.H.				72 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		72 PR
LONE STAR GAS CO.	LOCH,G.S.				73 PR
LONE STAR GAS CO.	KING,S.H.				73 PR
LONE STAR GAS CO.	HULCY,LOUIS B.				72 PR
LSG MALAYSIA,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				72 PR
LONE STAR GAS CO.	SINGER,S.R.				72 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		72 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		72 PR
LONE STAR GAS CO.	FOWLER,R.G.				72 PR
LSG TRANSTEXAS GAS CO.					
LONE STAR GAS CO.	WILLIAMS,R.B.				72 PR
LONE STAR GAS CO.	SINGER,S.R.				72 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		72 PR
LONE STAR GAS CO.	MERRITT,H.H.				72 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		72 PR
LONE STAR GAS CO.	LOCH,G.S.				73 PR
LONE STAR GAS CO.	KING,S.H.				73 PR
LONE STAR GAS CO.	HULCY,LOUIS B.				72 PR
LTV CORP.					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		72 PR
LTV,INC.					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		68 70
LULING OIL & GAS CO.					
TESORO PETROLEUM CORP.	ELLIS,JAMES K.				59
LUMBERMANS MUT. INS. CO.					
SUN OIL CO.	POUNDS,WILLIAM F.		73 PR		67 70
LX CATTLE CO.					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR		
LYCEE FRANCAISE OF NEW YORK					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	
LYKES-YOUNGSTOWN CORP.&PREDECESSORS.					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		59 PR
LYRIC THEATRE					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		PR
M.A. HANNA CO.(DISSOLVED)					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		45 65
M.I.T. CORP.					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		58 PR
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		70 PR
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		65 PR
EXXON CORP.	STRATTON,JULIUS A.		66 70	PRESIDENT	66 66
EXXON CORP.	SHEPARD,DAVID A.		51 66		64 65
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		68 73
EXXON CORP.	COLLADO,EMILIO G.		60 PR		65 69
APCO OIL CORP.	KEYSER,PAUL V.	CONSULTANT	72 PR		70 PR
M.I.T.,ALUMNI ASSOC.					
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		69 PR
APCO OIL CORP.	KEYSER,PAUL V.	CONSULTANT	72 PR		69 PR
M.I.T.ALUMNI CENTER OF NEW YORK CITY					
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		64 PR
APCO OIL CORP.	KEYSER,PAUL V.	CONSULTANT	72 PR		64 PR
M.I.T.DEVELOPMENT FOUNDATION,INC.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		72 PR
M.W.KELLOGG CO.					
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		50 64
MACHINERY & ALLIED PRODUCTS INST.					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		72 PR
MACKAY-SHIELDS FINANCIAL CORP.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR	VICE PRESIDENT	65 PR
MACKAY-SHIELDS INTNL INC.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		71 73
MACKAY-SHIELDS MGMT SERVICES INC.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		71 72
MACKAY-SHIELDS,INC.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		69 73
MACKENZIE VALLEY PIPELINE RES. LTD.					
ASHLAND OIL, INC.	YANCEY,ROBERT E.	PRESIDENT	64 PR		
MACKIMMIE&MATTHEWS,CALGARY,CANADA					
HUSKY OIL LIMITED	MATTHEWS,FRANCIS RICHARD		58 PR	PARTNER	
MACMILLAN BLOEDEL LTD.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		72 PR
MADISON FUND,INC.					
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
MADISON SQUARE GARDEN					
TEXAS OIL & GAS CO.	GOULD,MILTON S.		59 PR		72 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MAGIE BROTHERS OIL CO.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		74 PR
MAGNUM FUND LTD.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		63 PR
MAGUIRE OIL CO.					
EXCHANGE OIL AND GAS CORP.	SMITH,CECIL L.				69 PR
MAKGADIKGADI SODA LTD.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
MANAGED FUNDS,INC.					
MONSANTO COMPANY	WILLIAMS,FELIX N.	VICE PRESIDENT	47 64		
MANHATTAN EYE EAR & THROAT HOSP.					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		69 PR
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72		
MANOR-FRANCE					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		61 PR
MANSFIELD TIRE & RUBBER CO.					
MURPHY OIL CO.	LEVIN,JOSEPH J.		65 67		
MANTECADOS PAYCO,INC.					
COMMONWEALTH OIL REFINING	CALDERON,CESAR A.		61 69		
MANUFACTURER'S TRUST CO.					
CROWN CENTRAL PETROL CORP	MASON,CHARLES J.		36 67		
MANUFACTURERS HANOVER BANK					
GENERAL CRUDE OIL CO.	WOODRUFF,C.E.				
MANUFACTURERS HANOVER CORP.					
GENERAL CRUDE OIL CO.	WOODRUFF,C.E.				
MANUFACTURERS HANOVER TRUST CO.					
GENERAL CRUDE OIL CO.	WOODRUFF,C.E.			VICE-CHAIR.OF BOARD	
CITIES SERVICE CO.	MCGILLICUDDY,JOHN F.		70 PR	PRESIDENT	
MANUFACTURERS NATL BANK					
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
MANUFACTURING CHEMISTS ASSOC.					
STANDARD OIL CO. OF OHIO	STEVENS,DONALD G.	SR.VICE PRESIDENT	68 PR		
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		72 PR
STD OIL CO. OF INDIANA	CUDD,HERSCHEL H.	SR.VICE PRESIDENT	63 PR		70 73
PHILLIPS PETROLEUM CO.	THOMAS,R.W.	VICE PRESIDENT	64 64		64 64
MONSANTO COMPANY	CHRISTIAN,JOHN L.	SR.VICE PRESIDENT	60 68		
MONSANTO COMPANY	BOCK,HOWARD J.	PRESIDENT	65 72		
EXXON CORP.	GARVIN,CLIFFORD C. JR.				69 71
MARAC HOLDINGS LTD.(NEW ZEALAND)					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MARATHON MANUFACTURING CO.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		73 PR
MARCONA CORP.					
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR		55 PR
MARCOR INC.					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		62 74
MARGARET CHASE SMITH LIBRARY					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		73 PR
MARINE PROTEIN CO.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		69 73
MARINELAND OF THE PACIFIC					
TEXACO,INC.	HARRIS,HENRY U.		35 73		49 72
MARLBOROUGH SCHOOL FDN.					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	TRUSTEE	
MARSHALSEA ASSOC.,INC.					
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72	CONSULTANT	
MARTINI & ROSSI LTD.-U.K.					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		56 PR
MARTINI & ROSSI-FRANCE					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		55 PR
MARYMOUNT HOSPITAL					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
MASON SHOE CO.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 66
MASS. INVESTORS GROWTH STOCK FUND					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		35 65
MASS. INVESTORS TRUST					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		37 65
MASS. MUTUAL INCOME INVESTORS,INC.					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		73 PR
MASS. MUTUAL LIFE INSURANCE CO.					
MONSANTO COMPANY	MUELLER,ROBERT K.	VICE PRESIDENT	61 68		
MASS.FINANCIAL SERVICES,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72	CONSULTANT	
AMERADA HESS CORP.	MOSES,WILLIAM B. JR.		68		
MASSEY FERGUSON CO.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		64 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MATTHEWS & CO.,LTD.					
GEN AMER. OIL CO. OF TEXAS	MATTHEWS,PAUL W.		PR	CHAIR.OF BOARD	64 PR
MAX MCGRAW WILDLIFE FDN.					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		64 PR
MAY AVE. BANK & TRUST,OKLAHOMA CITY					
ASHLAND OIL, INC.	GORDON,ROBERT D. JR.	VICE PRESIDENT	64 PR		
MAY DEPARTMENT STORES CO.					
UNION TEXAS PETROLEUM	SCHINN,RICHARD R.		73 PR		
MAYER,BROWN & PLATT					
TEXACO,INC.	GRAHAM,DONALD M.		70 74	ATTORNEY	
MAYO FOUNDATION					
PHILLIPS PETROLEUM CO.	WESCOE,W.CLARKE,DR.		64 PR		65 73
EXXON CORP.	CROSS,BERT S.		67 74		73 73
MCA					
UNION TEXAS PETROLEUM	FORROW,BRIAN D.	VICE PRESIDENT GENERAL COUNSEL	69 PR		
UNION TEXAS PETROLEUM	CONNOR,JOHN T.	FMR PRESIDENT CHAIR.OF BOARD	67 PR		
UNION TEXAS PETROLEUM	BISSINGER,FREDERICK L.	VICE-CHAIR.OF BOARD CHIEF OPER.OFFICER	66 PR		
MCCULLOCH PROPERTIES INC.					
MCCULLOCH OIL CORP.	MCCULLOCH,ROBERT P.JR.		64 PR	PRESIDENT	
MCDONALD,ALFORD & ROZELL					
ASHLAND OIL, INC.	MCDONALD,ANGUS W.		53 PR	ATTORNEY	
MCGRAW HILL CORP.					
TEXACO,INC.	MCGILL,WILLIAM J.		73 PR		73 PR
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		72 PR
MCKESSON & ROBBINS					
CONTINENTAL OIL CO.	NORSTAD,LAURIS				63 66
MCMURRY COLLEGE					
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR	TRUSTEE	73 PR
MCOSS-FAMILY HEALTH & NURSING					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		49 61
MEAD CORP.					
MONSANTO COMPANY	TEMPLE,ALAN H.		59 66		
MEADOWBROOK GAS CO.					
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		73 PR
MEADOWOOD,INC.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ASHLAND OIL, INC.	VANDEVEER,JAMES W.		64 PR		
MEADOWS FOUNDATION,INC.					
GEN AMER. OIL CO. OF TEXAS	MEADOWS,ALGUR H.	CHAIR.OF BOARD CHAIR.OF EXEC.COMM.	PR		64 PR
MEDUSA CORP.					
DIAMOND SHAMROCK OIL & GAS	HUGHES,JAMES A.	CHAIR.OF BOARD	64 PR		
MEDUSA PORTLAND CEMENT CO.					
STANDARD OIL CO. OF OHIO	SAUER,RICHARD C.	FMR VICE PRESIDENT	58 69		
MELLON BANK INTERNATIONAL					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	PRESIDENT	63 PR
MELLON BANK,N.A.					
PENNZOIL CO.	GILPATRICK,R.B. JR.		68 PR	SR.VICE PRESIDENT	
LONE STAR GAS CO.	BARNES,J. DAVID		67 PR	SR.VICE PRESIDENT	
GULF OIL CORPORATION	WYCKOFF,GEORGE W.		64 68		53 70
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR		70 PR
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	PRESIDENT CHAIR.OF BOARD	72 PR
GULF OIL CORPORATION	BROCKETT,E.D.		60 PR		66 72
DIAMOND SHAMROCK OIL & GAS	BARNES,J. DAVID		71 PR	SR.VICE PRESIDENT	
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		46 69
CONTINENTAL OIL CO.	CORCORAN,JOHN				69 PR
MELLON NATIONAL BANK					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR		73 PR
MELLON NATIONAL BANK AND TRUST CO.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	PRESIDENT	71 72
GULF OIL CORPORATION	DENTON,FRANK R.		59 71	VICE-CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 71
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		63 70
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		
MELLON NATIONAL CO.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	PRESIDENT	72 PR
MELLON NATIONAL CORP.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR		73 PR
GULF OIL CORPORATION	PEARSON,NATHAN W.		69 PR		72 PR
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	PRESIDENT CHAIR.OF BOARD	72 PR
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		72 PR
DIAMOND SHAMROCK OIL & GAS	EVANS,RAYMOND F.		64 PR		
MELLON NATL LEASING CORP.					
PENNZOIL CO.	GILPATRICK,R.B. JR.		68 PR		72 PR
MELLON NATL MORTG. CO.OF OHIO & COLO					
DIAMOND SHAMROCK OIL & GAS	BARNES,J. DAVID		71 PR		
MELLON NATL MORTGAGE CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PENNZOIL CO.	GILPATRICK,R.B. JR.		68 PR		73 PR
DIAMOND SHAMROCK OIL & GAS	BARNES,J. DAVID		71 PR		
MEMORIAL HOSPITAL,MORISTOWN,N.J.					
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR	TRUSTEE	70 PR
MEMORIAL SLOAN-KETTERING					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		73 PR
MEMPHIS PETERBILT,INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		74 PR
MENTAL HEALTH ASSN. OF ST.LOUIS					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
MERC BANCORPORATION					
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		69 PR
MERCANTILE BANCORPORATION,INC.					
MONSANTO COMPANY	KERLEY,JAMES J.	VICE PRESIDENT	70 PR		
MERCANTILE STORES CO.,INC.					
CHAMPLIN PETROLEUM CO.	MOORE,G.S.				
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
MERCANTILE TRUST CO.					
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		69 PR
MERCANTILE TRUST CO. NATL. ASSN.					
MONSANTO COMPANY	KERLEY,JAMES J.	VICE PRESIDENT	70 PR		
MONSANTO COMPANY	CHRISTIAN,JOHN L.	SR.VICE PRESIDENT	60 68		
MERCANTILE TRUST CO. OF ST.LOUIS					
MONSANTO COMPANY	WILLIAMS,FELIX N.	VICE PRESIDENT	47 64		
MERCHANT-STERLING CORP.					
CHAMPLIN PETROLEUM CO.	HARRIMAN,E.R.				
CHAMPLIN PETROLEUM CO.	GERRY,E.T.				
MERCHANTS & MFGS.ASSOC.,LOS ANGELES					
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71	VICE-CHAIR.OF BOARD	
MERCHANTS NATIONAL BANK,CEDAR RAP.IA					
MONSANTO COMPANY	FISHER,W.		71 PR		
MERCK & CO.					
EXXON CORP.	SHEPARD,DAVID A.		51 66		65 65
MERCY HOSPITAL,PITTSBURGH					
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		65 71
MEREDITH PUBLISHING CO.					
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MEREX,S.A.					
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		
MERIDIAN HOUSE FDN.					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		65 73
MESA PETROLEUM CO.					
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		67 73
MESA REALTY CO.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		65 PR
MESA RESOURCE CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		72 PR
EL PASO NATURAL GAS CO	PETTY,TRAVIS H.	EXEC.VICE PRESIDENT	71 PR		72 PR
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		72 PR
MESQUITE PIPELINE CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		69 PR
EL PASO NATURAL GAS CO	HAUNSAKER BARRY	VICE PRESIDENT			69 PR
EL PASO NATURAL GAS CO	GERBER,WAYNE S.	ASSISTANT SECRETARY			69 PR
METHANE ALPHA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		71 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
METHANE BETA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		71 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
METHANE DELTA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		71 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
METHANE EPSILON CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		71 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
METHANE ETA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
METHANE GAMMA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		71 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
METHANE IOTA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
METHANE KAPPA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
METHANE LAMBDA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
METHANE MU CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
METHANE TANKER SERVICE CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
METHANE THETA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		73 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		73 PR
METHANE ZETA CO.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		71 PR
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		71 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		71 PR
METHODIST HOSPITAL OF DALLAS					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
METHODIST HOSPITAL,HOUSTON					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		68 74
APCO OIL CORP.	MCCOLLUM,L.FRANKLIN,JR.		72 PR		67 PR
METROPOLITAN BAPTIST MINISTRIES,INC.					
AMERADA HESS CORP.	BRANDI,FREDERIC H.		68 69		
METROPOLITAN BOARD OF ST.LOUIS					
MONSANTO COMPANY	CUNNINGHAM,PRESTON	VICE PRESIDENT	71 PR		
METROPOLITAN LIFE INSURANCE CO.					
UNION TEXAS PETROLEUM	SCHINN,RICHARD R.		73 PR	PRESIDENT CHIEF EXEC.OFFICER	
MONSANTO COMPANY	THOMAS,CHARLES ALLEN	CHAIR.OF BOARD	42 68		
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MOBIL OIL CORPORATION	BORCH,FRED J.		73 PR		
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
EXXON CORP.	PETERSON,MARTHA		74 PR		74 74
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		66 69
CHAMPLIN PETROLEUM CO.	PLACE,J.B.M.	CHAIR.OF BOARD PRESIDENT			
METROPOLITAN MUSEUM OF ART					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR	TRUSTEE	
UNION TEXAS PETROLEUM	MEYER,ANDRE		67 71	TRUSTEE	
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		68 PR
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR	TRUSTEE	
METROPOLITAN OPERA ASSOC.					
TEXACO,INC.	GRANVILLE,MAURICE F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	70 PR		70 PR
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		73 PR
MONSANTO COMPANY	FISHER,W.		71 PR		
CHAMPLIN PETROLEUM CO.	MOORE,G.S.				
AMERADA HESS CORP.	HESS,LEON	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68		
METROPOLITAN OPPORTUNITIES,INC.					
LION OIL CO.	LEVIN,N.W.				67 PR
METROPOLITAN ST.LOUIS CHAMBER OF COM					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
MONSANTO COMPANY	BIBLE,HAROLD		69 PR		
MEYERLAND STATE BANK					
GENERAL CRUDE OIL CO.	ATTWELL,J.E.				
MFA OIL CO.,COLUMBIA,MO.					
NATL COOP. REFINERY ASSN	YOUNG,R.A.		65 PR	EXEC.VICE PRESIDENT	
MIAMI HEART INST.					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR
TEXACO,INC.	LONG,AUGUSTUS C.	CHAIR.OF EXEC.COMM.	50 PR		66 PR
MIAMI UNIV. IN OXFORD,OHIO					
STD OIL CO. OF INDIANA	JOHNSTON,LOGAN T.		63 71	TRUSTEE	64 72
MICHIGAN BELL TELEPHONE CO.					
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
MICHIGAN CONSOLIDATED GAS CO.					
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
MICRO INFORMATION SYSTEMS					
GEN AMER. OIL CO. OF TEXAS	GEAR,GEORGE A.		PR		72 PR
MID CONTINENT REG. EDUCATIONAL LAB					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	69 73

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MID-AMERICA GMC, INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		71 PR
MID-AMERICA PETERBILT JOPLIN, INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		74 PR
MID-AMERICA PETERBILT TRUCKS					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		69 PR
MID-AMERICA TRAILER SALES, INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		71 PR
MID-CONTINENT OIL & GAS ASSOC.					
STD OIL CO. OF INDIANA	GALLOWAY, GEORGE H.		74 PR		72 PR
PENNZOIL CO.	LIEDTKE, WILLIAM C, JR.	PRESIDENT	68 PR		70 PR
LONE STAR GAS CO.	POOL, FRANK M.				
KERR-MCGEE CORP.	LOVE, F.C.		65 PR		66 73
EXCHANGE OIL AND GAS CORP.	BRICKER, JOHN F.	CHAIR.OF BOARD			73 PR
CONTINENTAL OIL CO.	PEARSON, GERALD T.				63 68
CONTINENTAL OIL CO.	GLENN, WAYNE E.	DIVISION PRESIDENT			70 PR
MID-COUNTY CHEMICAL CO.					
UNION OIL CO. OF CALIF.	MCCONNOR, WILLIAM S.	SR.VICE PRESIDENT	73 PR		65 PR
MID-STATES BUSINESS CAPITAL CORP.					
APCO OIL CORP.	WOODFIN, GENE M.		60 PR		60 63
MIDCONTINENT ENVIRON.CTR.ASSOC.					
PHILLIPS PETROLEUM CO.	BROOKBY, HARRY D.	EXEC.VICE PRESIDENT	73 PR		73 PR
MIDDLE EAST INST. BOARD OF GOVERNORS					
EXXON CORP.	ANDERSON, PAUL J.		61 65		64 64
MIDLAND COAL CO.					
PHILLIPS PETROLEUM CO.	PARKER, PAUL J.	VICE PRESIDENT	64 64		64 64
MIDLAND COOPERATIVES, MINN., MINN.					
NATL COOP. REFINERY ASSN	WALLER, ARNOLD		64 66		
NATL COOP. REFINERY ASSN	SAMPSON, SIGVED		72 PR	PRESIDENT	
NATL COOP. REFINERY ASSN	BIERBAUM, J.A.		66 72		
MIDLAND MEM. HOSPITAL					
FOREST OIL CORP.	DORN, JOHN C.	VICE PRESIDENT ASSISTANT SECRETARY	64 PR		66 PR
MIDLAND-ROSS CORP.					
STANDARD OIL CO. OF OHIO	WHITEHOUSE, ALTON W. JR.	PRESIDENT	67 PR		70 PR
STANDARD OIL CO. OF OHIO	HARRIS, WADE N.		62 67		
DIAMOND SHAMROCK OIL & GAS	REAVIS, JOHN W.		64 72		
MIDWEST OIL CORP.					
STD OIL CO. OF INDIANA	SWEARINGEN, JOHN E.	CHAIR.OF BOARD	52 PR		69 PR
STD OIL CO. OF INDIANA	MYERS, GEORGE V.	PRESIDENT	56 PR		69 PR
STD OIL CO. OF INDIANA	FARRELL, RICHARD J.	VICE PRESIDENT	63 PR		69 74

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MIDWEST RESEARCH INST.					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		72 PR
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 PR
MIDWEST STOCK EXCHANGE SERV. CORP.					
TEXAS OIL & GAS CO.	HUBER,AUGUST		70 PR		66 68
MIDWESTERN FINANCIAL CORP.					
HAMILTON BROTHERS,INC.	SLUYTER,HOWARD R.		69 PR		69 PR
MILBANK,TWEED,HADLEY & MCCLOY					
UNION TEXAS PETROLEUM	MCCLOY,JOHN J.		55 70	PARTNER	
AMERADA HESS CORP.	ORESMAN,ROGER B.		69	ATTORNEY	
MILES LABORATORIES					
MONSANTO COMPANY	MAYER,JEAN		70 PR	SENATOR	
MILLER CONTRACTING CO.					
CLINTON OIL CO.	MILLER,DON P.		71 PR	PRESIDENT	
MILLIKEN & CO.					
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
MILLING,BENSON,WOODWARD,ET AL.					
LOUISIANA LAND & EXPLOR.	BENSON,LAWRENCE K.		61 PR	ATTORNEY PARTNER	
MILNER,STEER,DYDE,MASSIE,ET AL.					
HUSKY OIL LIMITED	MILNER,HORATIO RAY QC		60 64	PARTNER	
MILSTAR MFG CORP.					
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
MILWAUKEE ALCOHOLICS REHAB. SERVS.					
CLARK OIL & REFINING CORP.	TREIBER,PHILLIP A.		72 PR		72 74
MILWAUKEE ELECTRIC TOOL CO.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		44 PR
MINN. MINING & MANUFACTURING CO.					
EXXON CORP.	CROSS,BERT S.		67 74		67 73
MINNESOTA NATL GAS CO.					
LONE STAR GAS CO.	CRAWFORD,R.E.		48 74	CHAIR.OF BOARD	
MINOT MERCANTILE CORP.					
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
MIRLIN CORP.					
MONSANTO COMPANY	MAYER,JEAN		70 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MISCO CHEMICAL INTNL.,INC.,WICHITA					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		62 PR
MISCO INDUSTRIES,INC.,WICHITA					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		72 PR
MISS. POWER & LIGHT CORP.					
AMERADA HESS CORP.	HEARIN,ROBERT M.		69		
MISS. STATE U. DEVELOPMENT FUND					
UNION TEXAS PETROLEUM	BRADFORD,DAVID M. JR.	PRESIDENT EXEC.VICE PRESIDENT	70 PR		
MISS. VALLEY TITLE INS. CO.					
AMERADA HESS CORP.	HEARIN,ROBERT M.		69		
MISSION CORPORATION					
GETTY OIL COMPANY	SILER,WALTER O.	FMR VICE PRESIDENT TREASURER	63 67		63 68
GETTY OIL COMPANY	MILLER,ERNEST B. JR.	EXEC.VICE PRESIDENT CHIEF OPER.OFFICER	73 PR		73 PR
GETTY OIL COMPANY	KRUG,CHARLES F.	FMR VICE PRESIDENT SECRETARY	54 67		56 70
GETTY OIL COMPANY	GRAY,J.EARLE	VICE PRESIDENT	68 PR		72 PR
GETTY OIL COMPANY	GETTY,J.PAUL	PRESIDENT FMR PRESIDENT	48 PR		48 PR
GETTY OIL COMPANY	GETTY,GEORGE F. II	FMR VICE PRESIDENT CHIEF OPER.OFFICER	67 73		70 73
MISSION DEVELOPMENT COMPANY					
GETTY OIL COMPANY	HAYS,C.LANSING JR.		61 PR		58 67
GETTY OIL COMPANY	GETTY,J.PAUL	PRESIDENT FMR PRESIDENT	48 PR		48 67
MISSISSIPPI FDN. INDEP. COLLEGES					
PENNZOIL CO.	PARKES,ED		68 72	TRUSTEE	59 65
MISSOURI ASSN. FOR MENTAL HEALTH					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
MITCHELL,SILBERBERG & KNUPP					
OCCIDENTAL PETROLEUM CORP.	GROMAN,ARTHUR	ATTORNEY	57 PR		
MITRE CORP.					
SUN OIL CO.	POUNDS,WILLIAM F.		73 PR		68 PR
MO.PUBLIC EXPENDITURE SURVEY COMM.					
GULF OIL CORPORATION	DEAN,R.HAL		70 PR	TRUSTEE	66 PR
MOBIL CHEMICAL CO.					
MOBIL OIL CORPORATION	NELSON,THEODORE W.	EXEC.VICE PRESIDENT	70 PR	PRESIDENT	74 PR
MOBIL OIL CORP					
APCO OIL CORP.	KEYSER,PAUL V.	CONSULTANT	72 PR		64 69

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MODEL SHOPS,INC.					
EL PASO NATURAL GAS CO	NOEL,W.D.				61 PR
MOGUL CORP.					
DIAMOND SHAMROCK OIL & GAS	DE WINDT,E. MANDELL		69 PR		
MOHASCO INDUSTRIES,INC.					
MURPHY OIL CO.	MORGAN,ALLEN		73 PR		
MOLECULON RESEARCH CORP.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		70 PR
MOLOKAI RANCH					
STANDARD OIL CO.OF CALIF.	JOHNSON,RALPH B.				
MONAGAS OIL CORP.					
FELMONT OIL CORP.	WALKER,LYNN	PRESIDENT CHIEF OPER.OFFICER	66 PR		
FELMONT OIL CORP.	RICHARDS,H. AMES JR.	SR.VICE PRESIDENT	67 PR		
MONMOUTH MEMORIAL HOSPITAL					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		46 58
MONMOUTH PARK JOCKEY CLUB					
AMERADA HESS CORP.	HESS,LEON	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68		
MONSANTO COMMERCIAL PRODUCTS CO.					
MONSANTO COMPANY	SMITH,M.K. JR.		71 PR	VICE PRESIDENT MANAGING DIRECTOR	
MONSANTO INDUSTRIAL CHEMICALS CO.					
MONSANTO COMPANY	BIBLE,HAROLD		69 PR	VICE PRESIDENT MANAGING DIRECTOR	
MONSANTO POLYMERS & PETROCHEM. CO.					
MONSANTO COMPANY	ECK,JOHN R.		69 PR	VICE PRESIDENT MANAGING DIRECTOR	
MONTGOMERY BELL ACADEMY					
MURPHY OIL CO.	OWEN,RALPH		60 PR	TRUSTEE	
MONTHLY INCOME SHARES,INC.					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				74
MOORE CORP.,LTD.					
MONSANTO COMPANY	TEMPLE,ALAN H.		59 66		
MOORE DRY KILN CO. OF OREGON					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR		64 PR
MOOSE MOUNTAIN LTD.,CANADA					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MOREHOUSE COLLEGE					
UNION TEXAS PETROLEUM	MINTON,HENRY M.		4 97	TRUSTEE	
MORGAN GUAR. TRUST CO. OF N.Y.					
PANHANDLE ESTRN PIPE LN.CO	RODD,THOMAS		68 PR	VICE-CHAIR.OF BOARD	
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		63 PR
EXXON CORP.	RATHBONE,MONROE J.		49 65		64 64
EXXON CORP.	MORGENS,HOWARD J.		67 69		67 68
EXXON CORP.	CROSS,BERT S.		67 74		68 73
EXXON CORP.	COLLADO,EMILIO G.		60 PR		70 74
CONTINENTAL OIL CO.	MCCOLLUM,LEONARD F.				72 PR
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		62
CITIES SERVICE CO.	GATES,THOMAS S.		61 PR		
BELCO PETROLEUM CO	RUTH,NELSON Y.		68 PR	FMR VICE PRESIDENT	
BELCO PETROLEUM CO	PRESTON,LEWIS T.		62 68		
MORGAN GUAR. TRUST CO,ADV.COUN.					
PANHANDLE ESTRN PIPE LN.CO	DICKEY,CHARLES D.		53 67		
MORGAN JONES ESTATE					
LONE STAR GAS CO.	JONES,MORGAN JR.		60 PR		
MORLAN PACIFIC CORP.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		70 71
MORNINGSIDE HEIGHTS,INC.					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
MOSCOSO HERMANOS & CO.					
COMMONWEALTH OIL REFINING	MOSCOSO,TEODORO		64 73		
MOSS ENTERPRISES					
OCCIDENTAL PETROLEUM CORP.	MOSS,MORRIE A.		73 PR	CHAIR.OF BOARD	
MOTOR IMPORTS,INC.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		74 PR
MOUNT SINAI HOSPITAL					
AMERADA HESS CORP.	HESS,LEON	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68	TRUSTEE	
MOUNTAIN FUEL SUPPLY CO.					
MARATHON OIL COMPANY	DONNELL,JAMES C. II	CHAIR.OF BOARD	36 PR		35 73
MRS. PAUL'S KITCHENS,INC.					
PHILLIPS PETROLEUM CO.	FORTENBAUGH,SAMUEL B.JR.		64 68		64 68
MSF ASSET MGMT,INC.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		69 72
MSF DEVELOPMENT CORP.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		71 73
MSF RESEARCH CORP.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		68 72

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MUNICIPAL UTILS.DIST.#1 OF TEXAS					
CLINTON OIL CO.	MILLER,DON P.		71 PR		74 PR
MUNOCO CO.					
MURPHY OIL CO.	NOLAN,WILLIAM C.		50 PR	PARTNER	
MURCHISON BROTHERS					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR	PARTNER	
MURCHISON FUND					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
MURCHISON OIL CO.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
MURPHY FDN.					
MURPHY OIL CO.	MURPHY,C.H. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	50 PR		58 PR
MURPHY OIL CO.	DEMING,JOHN W.		50 PR		
MURPHY OIL CORP.					
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR		65 65
MURRAY CO. OF TEXAS,INC.					
COMMONWEALTH OIL REFINING	EMERSON,ROBERT G.		54 67		
MUSEUM OF FINE ARTS,HOUSTON					
FOREST OIL CORP.	DORN,DAVID F.	EXEC.VICE PRESIDENT ASSISTANT SECRETARY	64 PR		69 70
MUSEUM OF MODERN ART					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72		
MUSEUM OF SCIENCE & INDUSTRY					
STD OIL CO. OF INDIANA	KIMPTON,LAWRENCE A.		58 71	TRUSTEE	56 74
STD OIL CO. OF INDIANA	CUDD,HERSCHEL H.	SR.VICE PRESIDENT	63 PR	TRUSTEE	71 PR
MUSEUM OF THE SOUTHWEST					
FOREST OIL CORP.	DORN,JOHN C.	VICE PRESIDENT ASSISTANT SECRETARY	64 PR		65 67
MUSIC CENTER OPERATING CO.					
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
MUSICAL ARTS ASSOC.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
MUTUAL BENEFIT LIFE INS. CO.					
AMERADA HESS CORP.	MESTRES,RICARDO A.		72		
AMERADA HESS CORP.	HESS,LEON	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68		
MUTUAL BROADCASTING CORP.					
SUN OIL CO.	PEW,JNO. G.		41 PR		64 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MUTUAL LIFE INS. CO. OF N.Y.					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		64 PR
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		73 PR
CITIES SERVICE CO.	ROMNES,H.I.		67 73		
CHAMPLIN PETROLEUM CO.	HARRIMAN,E.R.				
CHAMPLIN PETROLEUM CO.	GATES,A.L.				
MUTUALLE SOLVAY					
UNION TEXAS PETROLEUM	SOLVAY,JACQUES E.		66 PR	CHAIR.OF BOARD	
MYRON STRATTON HOME,COLORADO SPRINGS					
HUNT OIL CO.	HILL,A.G.		70 PR		64 PR
N.J. BD.OF HIGHER EDUCATION					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		71 71
N.J. ZINC CO.					
FELMONT OIL CORP.	BOYD,JAMES		68 72		
N.J.,INDIANA,AND ILLINOIS R.R.					
UNION TEXAS PETROLEUM	FISHWICK,JOHN P.		73 PR		
N.V. MAVOB(NETHERLANDS)					
CITIES SERVICE CO.	VAN MARKEN,EVERT P.		69 PR		
N.Y. ACADEMY OF SCIENCE					
EXXON CORP.	BARROW,THOMAS D.		72 PR		72 74
N.Y. CHAMBER OF COMMERCE & INDUSTRY					
MOBIL OIL CORPORATION	TUCKER,RICHARD F.	EXEC.VICE PRESIDENT	71 PR		PR
		PRESIDENT			
CHAMPLIN PETROLEUM CO.	MITCHELL,H.B.	CHAIR.OF BOARD			
		CHIEF EXEC.OFFICER			
N.Y. COMMUNITY TRUST					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		65 72
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72	TRUSTEE	69 72
N.Y. FDN.					
CITIES SERVICE CO.	HEYMAN,DAVID M.		63 66	CHAIR.OF BOARD	
N.Y. HOSPITAL-CORNELL MED. CEN.					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72		
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
N.Y. LIFE INS. CO.					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR		
MONSANTO COMPANY	EATON,FREDERICK M.		47 PR		
MARATHON OIL COMPANY	DONNELL,JOHN R.	SR.VICE PRESIDENT	54 73		67 PR
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR	CHAIR.OF BOARD	67 PR
				CHIEF EXEC.OFFICER	
AMERADA HESS CORP.	RENCHARD,WILLIAM S.		72		
N.Y. PUBLIC LIBRARY					
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR	TRUSTEE	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EXXON CORP.	SHEPARD,DAVID A.		51 66		64 65
N.Y. RACING ASSOC.					
TEXACO,INC.	PHIPPS,OGDEN		58 PR		
N.Y. STOCK EXCHANGE					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72		
MARATHON OIL COMPANY	MULFORD,RAYMON H.		66 73		
GETTY OIL COMPANY	BARTON,D.FREDERICK		62 67	GOVERNOR	
N.Y. UNIV.					
UNION TEXAS PETROLEUM	NICHOLS,C.W. JR.		55 PR	TRUSTEE	
				CHAIR.OF BOARD	
UNION TEXAS PETROLEUM	MEYER,ANDRE		67 71	TRUSTEE	
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR	CHAIR.OF BOARD	
CONTINENTAL OIL CO.	BUEK,CHARLES				61 PR
N.Y. UNIV. MEDICAL CENTER					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		66 PR
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74	TRUSTEE	71 PR
EXXON CORP.	ELLIOTT,LLOYD W.		51 65		64 64
N.Y. URBAN COALITION,INC.					
EXXON CORP.	GARVIN,CLIFFORD C. JR.				71 74
EXXON CORP.	BRISCO,MILO M.		66 72		70 70
N.Y. ZOOLOGICAL SOCIETY					
UNION TEXAS PETROLEUM	NICHOLS,C.W. JR.		55 PR	TRUSTEE	
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR	TRUSTEE	
N.Y.FED.RES.BK MONEY MKT GENL COMM.					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		72 74
NABISCO S.A.-SWITZ.					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		60 PR
NABISCO, LTD-U.K.					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		39 PR
NABISCO,INC.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
NAESS SHIPPING CO.,INC.					
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR		
NAM					
UNION TEXAS PETROLEUM	FORROW,BRIAN D.	VICE PRESIDENT GENERAL COUNSEL	69 PR		
UNION TEXAS PETROLEUM	BISSINGER,FREDERICK L.	VICE-CHAIR.OF BOARD CHIEF OPER.OFFICER	66 PR		
NARANGANSETT CAPITAL CORP.					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		73 PR
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		63 66

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
NARRAGANSETT WIRE CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		67 PR
EL PASO NATURAL GAS CO	TITMAS,ELLIS L.			VICE PRESIDENT	67 PR
EL PASO NATURAL GAS CO	RICHARDS,ROSS W.				67 73
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		67 PR
EL PASO NATURAL GAS CO	MORLEY,WILLIAM H.				67 71
EL PASO NATURAL GAS CO	HORAN,ROBERT J.			VICE PRESIDENT	72 PR
EL PASO NATURAL GAS CO	FELDMAN,ROBERT J.			PRESIDENT TREASURER	67 PR
EL PASO NATURAL GAS CO	CROWE,HENRY E.				67 67
EL PASO NATURAL GAS CO	CARAMEROS,GEORGE D. JR.	EXEC.VICE PRESIDENT	73 PR		67 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		67 PR
EL PASO NATURAL GAS CO	BERARDI,DOMINICK J.			VICE PRESIDENT	67 PR
NASHUA CORP.					
FELMONT OIL CORP.	CASE,HADLEY	CHAIR.OF BOARD CHIEF EXEC.OFFICER	51 PR		65 PR
NASHVILLE GAS CO.					
MURPHY OIL CO.	OWEN,RALPH		60 PR		
NATION-WIDE SECURITIES CO.,INC.					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
CONTINENTAL OIL CO.	PACE,FRANK,JR.				55
NATIONWIDE REAL ESTATE INVEST. TRUST					
TENNECO INC.	HALL,JOSEPH B.		63 70		70 PR
NATL ACAD. FOR PUBLIC ADMINISTRATION					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		68 73
NATL ACADEMY OF ENGINEERING					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		74 PR
EXXON CORP.	STRATTON,JULIUS A.		66 70		67 69
EXXON CORP.	HAIDER,MICHAEL L.		59 69		67 69
NATL ACADEMY OF SCIENCE					
EXXON CORP.	STRATTON,JULIUS A.		66 70		67 69
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 74
NATL ALLIANCE OF BUSINESSMEN					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		
NATL ASSN. OF MENTAL HEALTH					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
NATL ASSOC. OF ACCOUNTANTS					
LONE STAR GAS CO.	JAMES,LOUIS G.	PRESIDENT	67 72		
NATL BANK OF DETROIT					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
NATL BANK OF TULSA					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PHILLIPS PETROLEUM CO.	MARTIN,W.F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	64 PR		72 PR
CITIES SERVICE CO.	HESTON,J.EDGAR	PRESIDENT	61 71		
CITIES SERVICE CO.	CRENSHAW,KIRBY E.	PRESIDENT	58 72		
NATL BD.OF GRAD. EDUCATION					
EXXON CORP.	PETERSON,MARTHA		74 PR		74 74
NATL BERYLLIA CORP.					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
NATL BK OF COMMERCE,SAN ANTONIO,TEX.					
FOREST OIL CORP.	DORN,DALE H.	CHAIR.OF BOARD	64 PR		69 PR
NATL BOULEVARD BANK OF CHICAGO					
TEXACO,INC.	WRIGLEY,WILLIAM		74 PR		58 PR
STD OIL CO. OF INDIANA	OSMENT,FRANK C.	EXEC.VICE PRESIDENT	68 PR		69 PR
NATL BOY SCOUT COUNCIL					
MARATHON OIL COMPANY	HARDWICK,CHARLES Z.	EXEC.VICE PRESIDENT	48 66		
NATL BUR OF ECONOMIC RESEARCH					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		66 PR
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
EXXON CORP.	COLLADO,EMILIO G.		60 PR		68 71
NATL CAN CORP.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
NATL CASH REGISTER CO.					
STANDARD OIL CO. OF OHIO	HANGEN,JOHN J.		71 PR	VICE PRESIDENT	65 PR
MONSANTO COMPANY	ROCKEFELLER,JAMES S.		66 73		
CONTINENTAL OIL CO.	HARDESTY,C. HOWARD JR.	DIVISION PRESIDENT			73 PR
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.				69 PR
NATL CASTINGS CO.					
STANDARD OIL CO. OF OHIO	HARRIS,WADE N.		62 67		
NATL CENTER FOR RES. REC. INC.					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
NATL CENTER FOR VOLUNTEER ACTION					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				70
NATL CITY BANK					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		56 PR
NATL CITY BANK OF CLEVELAND					
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		64 PR
STANDARD OIL CO. OF OHIO	HARRIS,WADE N.		62 67		
STANDARD OIL CO. OF OHIO	BALDWIN,E. COLIN		63 69		
MARATHON OIL COMPANY	DONNELL,JAMES C. II	CHAIR.OF BOARD	36 PR		49 PR
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
NATL CITY CORP.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		73 PR
MARATHON OIL COMPANY	DONNELL,JAMES C. II	CHAIR.OF BOARD	36 PR		73 PR
NATL CITY LINES,INC.					
EXCHANGE OIL AND GAS CORP.	REAVIS,C. FRANK				64 PR
NATL CIVIL SERVICE LEAGUE					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		65 74
NATL COAL ASSOC.					
STANDARD OIL CO. OF OHIO	BUCHANAN,DEWITT W. JR.		69 PR		
CONTINENTAL OIL CO.	CORCORAN,JOHN				66 PR
BELCO PETROLEUM CO	JOSEPH,MARK R.		69 PR		69 PR
NATL COMM.ON MATERIALS POLICY					
FELMONT OIL CORP.	BOYD,JAMES		68 72	EXECUTIVE DIRECTOR	
NATL CONF. OF CHRISTIANS & JEWS					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
NATL COOPERATIVE REFINERY ASSN.					
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		64 72
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		64 69
FARMLAND INDUSTRIES,INC.	CHELF,ROY		66 PR		73 PR
NATL COUNCIL FOR U.S.-CHINA TRADE					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		73 PR
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.			TRUSTEE	73
NATL COUNCIL OF THE NEAR EAST FDN					
EXXON CORP.	PAGE,HOWARD W.		54 70		67 70
NATL DATA PROCESSING CORP.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		60 61
NATL DISTILLERS AND CHEM.CORP.NY					
PANHANDLE ESTRN PIPE LN.CO	BIERWIRTH,JOHN E.		37 40	CHAIR.OF BOARD	
PANHANDLE ESTRN PIPE LN.CO	BELL,DRUMMOND C.		70 PR	PRESIDENT	
NATL FARM LINES					
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		64 67
NATL FIRE INS. CO. OF HARTFORD					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		44 70
NATL FOREIGN TRADE COUNCIL INC.					
TEXACO,INC.	FOLMAR,LAURIE W.	SR.VICE PRESIDENT	70 PR		69 PR
MONSANTO COMPANY	REESE,FRANCIS E.	VICE PRESIDENT MANAGING DIRECTOR	73 PR		
MONSANTO COMPANY	MUELLER,ROBERT K.	VICE PRESIDENT	61 68		
MONSANTO COMPANY	BRYAN,ANTHONY J.A.	VICE PRESIDENT	71 73		
EXXON CORP.	STINEBOWER,LEROY D.		63 69		66 69
EXXON CORP.	MILBRATH,ROBERT H.	TRUSTEE	69 73		70 73

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EXXON CORP.	COX,DONALD M.		71 PR		74 74
EXXON CORP.	ANDERSON,PAUL J.		61 65		64 64
NATL GENERAL CORP					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		70 72
NATL GEOGRAPHIC SOCIETY					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		66 PR
NATL HEALTH COUNCIL					
LION OIL CO.	LEVIN,N.W.				
NATL INDUS. POLLUTION CONTROL COUNC.					
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		71 73
NATL INDUSTRIAL CONFERENCE BOARD					
UNION TEXAS PETROLEUM	BROWN,CHESTER M.	FMR CHAIR.OF BOARD FMR PRESIDENT	59 72		
MOBIL OIL CORPORATION	MOORE,FRED H.		61 66		
EXXON CORP.	WHITE,JOHN R.		60 71		64 67
EXXON CORP.	LEARSON,T. VINCENT		69 PR		72 73
NATL INSTITUTES OF HEALTH					
GETTY OIL COMPANY	TOPPING,DR. NORMAN		70 PR		
NATL LEGAL AID & DEFENDER ASSOC.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		70 73
NATL LIBERTY CORP.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		69 71
OCCIDENTAL PETROLEUM CORP.	WATSON,W. MARVIN	EXEC.VICE PRESIDENT	71 PR		69 PR
NATL MERIT SCHOLARSHIP CORP.					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		69 PR
NATL MULTIPLE SCLEROSIS SOC					
CITIES SERVICE CO.	MCGILLICUDDY,JOHN F.		70 PR		
NATL OCEAN INDUSTRIES ASSOC.					
LOUISIANA LAND & EXPLOR.	LANGHETEE,E.J. JR	VICE-CHAIR.OF BOARD	71 PR		72 73
NATL OIL FUEL INST.,INC.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		66 66
MARATHON OIL COMPANY	YOUNG,GRANT H.	CHAIR.OF EXEC.COMM.	63 73		
NATL PETRO CHEMICALS CORP.					
MARATHON OIL COMPANY	MULFORD,RAYMON H.		66 73		
NATL PETROLEUM COUNCIL					
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		68 69
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD	46 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		CHIEF EXEC.OFFICER			
EXXON CORP.	WRIGHT,MYRON A.		58 66		73 74
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		70 74
EXXON CORP.	HAIDER,MICHAEL L.		59 69		66 69
NATL PETROLEUM REFINERS ASSOC.					
STANDARD OIL CO. OF OHIO	SAUER,RICHARD C.	FMR VICE PRESIDENT	58 69		
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		70 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD	64 PR		64 74
		FMR VICE PRESIDENT			
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD	68 PR		64 67
		CHIEF EXEC.OFFICER			
MARATHON OIL COMPANY	MORIARTY,FRANCIS C.	SR.VICE PRESIDENT	69 72		
LION OIL CO.	SHEEHAN,J.H.	SR.VICE PRESIDENT	72 PR		54 72
GETTY OIL COMPANY	TOMFOHRDE,HEINN F. JR.	VICE PRESIDENT	67 71		
NATL PLANNING ASSOCIATION					
EXXON CORP.	CAMPBELL,NICHOLAS J.		65 66		72 74
NATL PLANT FOOD INST.					
PHILLIPS PETROLEUM CO.	GETGOOD,JOHN	VICE PRESIDENT	64 71		65 66
NATL PROPANE CORP.					
APCO OIL CORP.	WELLS,C.T.		66 PR		65 66
NATL READING CENTER FDN.					
KERR¬MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		71 73
NATL REINS. CORP.					
CITIES SERVICE CO.	SHEPARD,LYLE L.	EXEC.VICE PRESIDENT	62 69		
NATL SAFETY COUNCIL					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
MONSANTO COMPANY	BOCK,HOWARD J.	PRESIDENT	65 72		
NATL SAFETY COUNCIL OFFICE,CHICAGO					
PHILLIPS PETROLEUM CO.	LEARNED,STANLEY		64 70		64 66
NATL SCIENCE BOARD					
EXXON CORP.	STRATTON,JULIUS A.		66 70		67 67
NATL SHAWMUT BANK OF BOSTON					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		69 PR
NATL SPACE CLUB					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		68 71
NATL STANDARD CO.					
MARATHON OIL COMPANY	PLATTS,JOHN H.		73 PR		
NATL STATE BANK,ELIZABETH,N.J.					
UNION TEXAS PETROLEUM	BROWN,CHESTER M.	FMR CHAIR.OF BOARD	59 72		
		FMR PRESIDENT			
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD	57 PR		49 61
		CHIEF EXEC.OFFICER			

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
NATL STEEL CORP.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		60 PR
NATL TRANSIT CO.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		65 73
NATL TRUST CO. LTD.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		59 67
NATL UNION ELECTRIC CORP.					
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
NATL WILDLIFE FEDERATION					
EXXON CORP.	WRIGHT,MYRON A.		58 66		73 74
NATL 4-H SERVICE COMM.					
STD OIL CO. OF INDIANA	YARRINGTON,BLAINE J.	EXEC.VICE PRESIDENT	70 PR	FMR PRESIDENT	70 74
NATMAR,CINCINNATI,OHIO					
ASHLAND OIL, INC.	ROSS,F.H. JR.		71 PR		
NAVAL HISTORICAL FDN.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		63 PR
NEAR EAST COLLEGE ASSN.					
MOBIL OIL CORPORATION	TAVOULAREAS,WILLIAM P.	PRESIDENT FMR VICE PRESIDENT	65 PR		PR
NEAR EAST FOUNDATION					
EXXON CORP.	PIERCY,GEORGE T.		66 PR		67 74
EXXON CORP.	PAGE,HOWARD W.		54 70		64 66
NEIGHBORHOOD HOUSE OF MILWAUKEE,INC.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		50 PR
NELLA CORP.					
BEACON OIL CO.	NIBLEY,ROBERT	SECRETARY			64 65
BEACON OIL CO.	MORIN,V.I.				64 67
BEACON OIL CO.	MARCONI,W.L.	PRESIDENT			66 69
BEACON OIL CO.	DWELLE,T.W.	VICE PRESIDENT			64 69
BEACON OIL CO.	ANDERSON,V.L.	EXEC.VICE PRESIDENT TREASURER			67 69
BEACON OIL CO.	ALLEN,W.B.				64 66
BEACON OIL CO.	ALLEN,M.D.	CHAIR.OF BOARD			64 69
NEPTUNE METER CO.					
UNION TEXAS PETROLEUM	NICHOLS,C.W. JR.		55 PR	CHAIR.OF EXEC.COMM.	
NETHERLANDS-AM. FOUNDATION					
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
NEW AMSTERDAM CASUALTY CO.					
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR	CHAIR.OF BOARD	
NEW COURT PRIVATE EQUITY FUND					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR		
NEW ENGLAND PETROLEUM CORP.					
COMMONWEALTH OIL REFINING	CAREY,EDWARD M.		53 66		
NEW HAVEN TRAP ROCK CO.					
ASHLAND OIL, INC.	REIGELUTH,ROBERT S.		68 PR	CHAIR.OF BOARD	
NEW HAVEN WATER CO.					
ASHLAND OIL, INC.	REIGELUTH,ROBERT S.		68 PR		
NEW JERSEY CHAMBER OF COMMERCE					
UNION TEXAS PETROLEUM	BROWN,CHESTER M.	FMR CHAIR.OF BOARD FMR PRESIDENT	59 72		
UNION TEXAS PETROLEUM	BARNARD,JOHN H.	VICE PRESIDENT	71 72		
NEW ORLEANS EAST,INC.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
NEW ORLEANS PETROLEUM CLUB					
EXCHANGE OIL AND GAS CORP.	GOODWIN,ROBERT L.	PRESIDENT			72 74
NEW ORLEANS PUBLIC SERVICE INC.					
LOUISIANA LAND & EXPLOR.	HARDIE,EBEN		63 PR		57 PR
NEW PERSPECTIVE FUND,INC.					
KERR-MCGEE CORP.	COLEFAX,PETER		67 PR		73 PR
NEWHALL LAND & FARMING CO.					
UNION OIL CO. OF CALIF.	DI GIORGIO,ROBERT	CHAIR.OF BOARD CHIEF EXEC.OFFICER	58 PR		70 PR
NEWMONT MINING CORP.					
UNION TEXAS PETROLEUM	MEYER,ANDRE		67 71		
AMERADA HESS CORP.	MOSES,WILLIAM B. JR.		68		
NEWMOUNT MINING CO.					
AMERICAN PETROFINA, INC.	SILLOWAY,STUART F.		71 PR		
NEWPORT NEWS SHIPBLDG & DRY DOCK CO.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		61 68
TENNECO INC.	HOLDEN,DONALD A.		68 70	CHAIR.OF BOARD	
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
NEWSWEEK INC.					
UNION TEXAS PETROLEUM	BEEBE,FREDERICK S.		62 73	CHAIR.OF BOARD	
NEWTON COLL. OF THE SACRED HEART					
EXXON CORP.	LEARSON,T. VINCENT		69 PR		70 73
NICHOLS ENGINEERING & RESEARCH CORP.					
UNION TEXAS PETROLEUM	NICHOLS,C.W. JR.		55 PR	CHAIR.OF BOARD	
NIPAK,INC.					
LONE STAR GAS CO.	YONKERS,H.J.				68 70

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
LONE STAR GAS CO.	WILLIAMS,R.B.				70 PR
LONE STAR GAS CO.	SUTHERLAND,L.H.				68 PR
LONE STAR GAS CO.	SINGER,S.R.				68 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		65 71
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		67 PR
LONE STAR GAS CO.	PARROTT,N.H.			VICE PRESIDENT	73 PR
LONE STAR GAS CO.	NEW,A.E.			VICE PRESIDENT	66 67
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		67 PR
LONE STAR GAS CO.	JURY,ROY E.				65 66
LONE STAR GAS CO.	JAMES,LOUIS G.	PRESIDENT	67 72	PRESIDENT	65 70
LONE STAR GAS CO.	HULCY,LOUIS B.				70 PR
LONE STAR GAS CO.	HULCY,D.A.	CHAIR.OF BOARD	52 67	CHAIR.OF BOARD	65 67
LONE STAR GAS CO.	COVINGTON,G.M.				68 PR
LONE STAR GAS CO.	COLE,DAN M.				67 73
LONE STAR GAS CO.	BROWN,E.A.				65 68
LONE STAR GAS CO.	BARNDT,CHARLES G.				68 72
NIXONS ADV. CNL FOR MINORITY ENT.					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		70 70
NL.COMM.OF EMPLOYR SUP.OF GUARD&RES.					
EXXON CORP.	CROSS,BERT S.		67 74		73 73
NL.COWBOY HL.OF FAME & W.HERITAGE CR					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR	TRUSTEE	69 PR
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			69 PR
NL.IND.ADV.CCL.ON OPPOR.OF IND.CTRS.					
EXXON CORP.	LEARSON,T. VINCENT		69 PR		70 73
NORA INTERNATL CO. OF PANAMA					
DIAMOND SHAMROCK OIL & GAS	DE NORA,VITTORIO		73 PR	CHAIR.OF BOARD	
NORAL ENGINEERING SPECIALTIES LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
NORBAK CORP.					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR
NORFOLK & WESTERN RAILWAY CO.					
UNION TEXAS PETROLEUM	FISHWICK,JOHN P.		73 PR	CHIEF EXEC.OFFICER PRESIDENT	
NORMAN Y. UEDA DDS,INC.					
CLINTON OIL CO.	UEDA,NORMAN Y. DR.		71 PR	PRESIDENT	71 PR
NORTEX OIL & GAS CORP.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		57 61
NORTH AMER. FINANCE CORP.					
STANDARD OIL CO. OF OHIO	CAZALET,PETER G.		73 PR		
NORTH AMERICAN AVIATION,INC.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
NORTH AMERICAN COAL CORP.					
DIAMOND SHAMROCK OIL & GAS	HUGHES,JAMES A.	CHAIR.OF BOARD	64 PR		
NORTH AMERICAN PHILLIPS CORP.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
NORTH AMERICAN ROCKWELL CORP.					
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		
NORTH STAR R&D INST. OF MINN.					
LONE STAR GAS CO.	CRAWFORD,R.E.		48 74		
NORTH TEXAS COMISSION					
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
NORTHEASTERN BANK OF PA.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		73 PR
NORTHEASTERN NATL BANK					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		68 71
NORTHERN INSURANCE CO.OF NY					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		64 64
NORTHERN LAND CO.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
NORTHERN NATURAL GAS CO.					
AMERICAN PETROFINA, INC.	SILLOWAY,STUART F.		71 PR		
NORTHERN OHIO OPERA ASSOC.					
OCCIDENTAL PETROLEUM CORP.	VAIL,HERMAN L.	ATTORNEY	68 PR	TRUSTEE	
NORTHERN PACIFIC RAILWAY CO.					
MONSANTO COMPANY	ROCKEFELLER,JAMES S.		66 73		
NORTHERN STATES BANCORP.,DETROIT					
CLINTON OIL CO.	SMITH,JOHN J.		73 PR		72 PR
NORTHERN TERRA RESOURCES,LTD.					
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		71 72
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		71 PR
FARMLAND INDUSTRIES,INC.	CHELF,ROY		66 PR		73 PR
NORTHERN W.VA.BROADCASTING CO.					
LION OIL CO.	LEVIN,N.W.				63 PR
NORTHROP CORP.					
KERR-MCGEE CORP.	JORGENSEN,EARLE M.		67 PR		65 PR
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
NORTHWEST AIRLINES,INC.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
FELMONT OIL CORP.	CASE,HADLEY	CHAIR.OF BOARD CHIEF EXEC.OFFICER	51 PR		57 PR
EXCHANGE OIL AND GAS CORP.	REAVIS,C. FRANK				60 PR
NORTHWEST BANCORPORATION					
TENNECO INC.	HANCOCK,THOMAS		72 74		PR
NORTHWEST OHIO BANKSHARES					
MARATHON OIL COMPANY	DONNELL,JOHN R.	SR.VICE PRESIDENT	54 73		
NORTHWEST PIPELINE CORP.					
APCO OIL CORP.	WELLS,C.T.		66 PR		74 74
NORTHWEST PRODUCTION CORP.					
EL PASO NATURAL GAS CO	WILLIAMS,C.R.		63 PR		57 PR
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		70 PR
EL PASO NATURAL GAS CO	WAGNER,FRED T.		46 71		57 70
EL PASO NATURAL GAS CO	TUCKER,D.H.				60 65
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		57 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		57 PR
EL PASO NATURAL GAS CO	PAYNE,LEON M.		57 72		57 72
EL PASO NATURAL GAS CO	LIDDELL,FRANK A.		36 64		57 64
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		64 PR
EL PASO NATURAL GAS CO	GRAMBLING,A.R.		46 71		64 71
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		64 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		64 PR
NORTHWESTERN BELL TELEPHONE CO.					
EXXON CORP.	CROSS,BERT S.		67 74		67 73
NORTHWESTERN MEM. HOSPITAL					
TEXACO,INC.	WRIGLEY,WILLIAM		74 PR		62 PR
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		65 PR
NORTHWESTERN REFINING CO.					
ASHLAND OIL, INC.	ERICKSON,EUGENE		71 PR	PRESIDENT	
NORTHWESTERN UNIV.					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR
STD OIL CO. OF INDIANA	YARRINGTON,BLAINE J.	EXEC.VICE PRESIDENT	70 PR	TRUSTEE	74 PR
STD OIL CO. OF INDIANA	CAIN,GEORGE R.		68 72	TRUSTEE	72
NORTHWESTERN UTILITIES,LTD,EDMONTON					
HUSKY OIL LIMITED	MILNER,HORATIO RAY QC		60 64		
NORTHWOOD FINANCE & REALTY CORP.					
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
NORTHWOOD INSTITUTE					
EL PASO NATURAL GAS CO	GLASSELL,ALFRED C. JR.		57 PR		
NORTON SIMON INC.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		67 69

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
NPRA					
LION OIL CO.	BROWN,T.P.				70 74
LION OIL CO.	BROWN,T.P.				66 68
NRG INC.					
EL PASO NATURAL GAS CO	BOWMAN,FRANK				
EL PASO NATURAL GAS CO	BENSCOTER,DON			CHAIR.OF BOARD	
NUMAC OIL & GAS LTD.					
FELMONT OIL CORP.	CASE,HADLEY	CHAIR.OF BOARD CHIEF EXEC.OFFICER	51 PR		63 PR
FELMONT OIL CORP.	BARD,RALPH A.,JR.		72 PR		
NUS					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		67 71
NUTRITION FOUNDATION					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73	TRUSTEE	
NWP CORP.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		72 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		57 PR
EL PASO NATURAL GAS CO	PAYNE,LEON M.		57 72		57 72
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		64 67
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		67 PR
O.E.C.D.BUSINESS & INDUSTRY ADV.COMM					
EXXON CORP.	COLLADO,EMILIO G.		60 PR	CHAIR.OF BOARD	64 74
O'MEARA-CHANDLER CORP.					
CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
O'CKIEP COPPER CO.,LTD.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
OAK HILLS COUNTRY CLUB					
FOREST OIL CORP.	CASEY,MARTIN F.	CHAIR.OF EXEC.COMM. VICE PRESIDENT	64 PR		69 72
OCCIDENTAL COLLEGE					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
OCCIDENTAL PETROLEUM CO.					
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR		68 69
OCEAN DRILLING & EXPLORATION CO.					
MURPHY OIL CO.	O'CONNOR,J.A. JR.		55 PR		55 PR
MURPHY OIL CO.	JONES,JAMES R.	CONTROLLER	69 PR		66 73
MURPHY OIL CO.	HOKE CHARLES J.	VICE PRESIDENT	50 PR		53 PR
OCEAN OIL AND GAS CO.					
MURPHY OIL CO.	HOKE CHARLES J.	VICE PRESIDENT	50 PR		71 PR
OCHSNER FDN HOSPITAL					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MURPHY OIL CO.	MURPHY,C.H. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	50 PR		62 PR
ODESSA GAS PIPELINE CO.					
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				71 71
EL PASO NATURAL GAS CO	NOEL,W.D.				71 PR
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				71 PR
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR		72 PR
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		71 PR
EL PASO NATURAL GAS CO	COLE,J.W. JR.			VICE PRESIDENT	71 PR
ODESSA NATURAL CORP.					
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				68 72
EL PASO NATURAL GAS CO	NOEL,W.D.				68 PR
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M. JR.				68 PR
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				71 PR
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR		71 PR
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		71 PR
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR	VICE PRESIDENT	70 PR
EL PASO NATURAL GAS CO	ALLEN,ROY W. JR.		68 PR	VICE PRESIDENT	71 PR
ODESSA NATURAL GASOLINE CO.					
EL PASO NATURAL GAS CO	SHEPPERD,JOHN BEN			VICE PRESIDENT	71 PR
EL PASO NATURAL GAS CO	RODMAN,E.G.				64 67
EL PASO NATURAL GAS CO	NOEL,W.D.				64 PR
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		67 PR
ODYSSEY HOUSE-ADVISORY BOARD					
BELCO PETROLEUM CO	BELFER,ROBERT A.	PRESIDENT	59 PR		70 PR
OFFLEY-FORRESTER-PORTUGAL					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		67 PR
OGLEBAY NORTON CO.					
DIAMOND SHAMROCK OIL & GAS	BENSON,KEITH S.		69 71	EXEC.VICE PRESIDENT	
OHIO BELL TELEPHONE CO.					
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		64 PR
DIAMOND SHAMROCK OIL & GAS	SHERWIN,JOHN		69 73		
DIAMOND SHAMROCK OIL & GAS	DE WINDT,E. MANDELL		69 PR		
OHIO CHAMBER OF COMMERCE					
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		
MARATHON OIL COMPANY	WEST,HOWARD H.	VICE PRESIDENT	53 68		
MARATHON OIL COMPANY	BARLOW,WILLIAM H.	VICE PRESIDENT	59 69		63 69
OHIO CITIZENS TRUST CO.					
MARATHON OIL COMPANY	MULFORD,RAYMON H.		66 73		
OHIO HISTORICAL SOCIETY					
OCCIDENTAL PETROLEUM CORP.	VAIL,HERMAN L.	ATTORNEY	68 PR	TRUSTEE	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
OHIO PUBLIC EXPENDITURES COUNCIL					
STANDARD OIL CO. OF OHIO	HART,RALPH A.	CHAIR.OF BOARD VICE-CHAIR.OF BOARD	66 PR		
OHIO UNIV.					
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65	TRUSTEE	
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR	TRUSTEE	65 PR
OHIO UNIV. FUND					
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65		
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR		65 PR
OHIO WESLEYAN UNIVERSITY					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		52 72
OIL INVESTMENT INSTITUTE					
BELCO PETROLEUM CO	BELFER,ROBERT A.	PRESIDENT	59 PR		70 PR
OIL SHALE CORP.					
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65		
LION OIL CO.	WHITCOMBE,J.A.			EXEC.VICE PRESIDENT	
LION OIL CO.	TWEEDY,J.B.			EXEC.VICE PRESIDENT	
LION OIL CO.	TALBOT,M.J.			VICE PRESIDENT CONTROLLER	
LION OIL CO.	LEVIN,N.W.				57 PR
LION OIL CO.	BIERBAUM,J.A.			SR.VICE PRESIDENT	
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR		66 PR
OIL TRADING CO.(IRAN) LTD.					
STANDARD OIL CO. OF OHIO	PENNELL,MONTAGUE M.		70 PR		
OKC CORP.,DALLAS					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 68
OKLA HERITAGE FDN					
PHILLIPS PETROLEUM CO.	HOUCHIN,JOHN M.	FMR CHAIR.OF BOARD	64 PR		72 PR
OKLA UNIVERSITY FDN					
PHILLIPS PETROLEUM CO.	HOUCHIN,JOHN M.	FMR CHAIR.OF BOARD	64 PR		64 PR
OKLA. ACAD. FOR STATE GOALS					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			69 70
OKLA. CHRISTIAN COLLEGE,NL.BD.OF GOV					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		70 PR
OKLA. CITY BEAUTIFUL,INC.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		69 PR
OKLA. CITY CH. OF COMMERCE					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		68 72
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			68 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		66 PR
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				
OKLA. CITY COMMUNITY FDN,INC.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	69 PR
OKLA. CITY SYMPHONY FDN,INC.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		70 PR
OKLA. CITY SYMPHONY SOC.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		67 PR
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		66 69
OKLA. CITY UNIV.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR	TRUSTEE	67 74
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 PR
OKLA. CITY UNIV.FDN,INC.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 PR
OKLA. EYE FDN					
PHILLIPS PETROLEUM CO.	HOUCHIN,JOHN M.	FMR CHAIR.OF BOARD	64 PR		73 PR
OKLA. GAS & ELECT. CO.					
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		65 PR
OKLA. SAFETY COUNCIL					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
OKLA. SCI.& ARTS FDN.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 69
OKLA. STATE CH. OF COMM.					
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR		70 73
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		71 73
OKLA. STATE UNIV.,DEVELOPMENT FDN.					
KERR-MCGEE CORP.	KELLY,JAMES J.	PRESIDENT CHIEF OPER.OFFICER	72 PR		66 PR
OKLA. ZOOLOGICAL SOC.,INC.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 69
OKLA.CITY INDUS.&CULT.FACILS.TRUST					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
OKLA.HEALTH SCIENCES FDN,INC.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 PR
OKLA.INDUSTRIES AUTHORITY					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
OKLA.MED.RESEARCH FDN.,INC.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
OKLA.NATURAL GAS CO.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 74
OKLAHOMA PETER. TRUCKS					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		69 PR
OLD BEN COAL CORP.					
STANDARD OIL CO. OF OHIO	SWENSRUD,SIDNEY A.	FMR VICE PRESIDENT	58 70		
STANDARD OIL CO. OF OHIO	BUCHANAN,DEWITT W. JR.		69 PR	PRESIDENT	
OLIN CORP.					
ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR		
OLSEN ENGINEERING CORP.					
APCO OIL CORP.	WELLS,C.T.		66 PR		65 72
OLYMPIC AIRWAYS					
CHAMPLIN PETROLEUM CO.	MOORE,G.S.				
OLYMPIC TRUST OF CANADA					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		72 PR
OMAHA NATL BANK					
CHAMPLIN PETROLEUM CO.	MILLER,M.F.				
CHAMPLIN PETROLEUM CO.	KENEFICK,J.C.				
CHAMPLIN PETROLEUM CO.	BAILEY,E.H.				
OMAHA NATL. CORP.					
CHAMPLIN PETROLEUM CO.	MILLER,M.F.			CHAIR.OF BOARD CHIEF EXEC.OFFICER	
ONE HUNDRED FRIENDS OF PITT. ART					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
ONE WILLIAM STREET FUND,INC.					
STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR		68 PR
ONEIDA,LTD.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
OPELIKA MFG. CO.					
UNION OIL CO. OF CALIF.	JACOBS,DONALD P.		73 PR		68 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
OPPORTUNITIES INDUSTRIALIZ. CTRS,INC					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		68 PR
ORAMA SECURITIES CORP.					
CHAMPLIN PETROLEUM CO.	HARRIMAN,E.R.				
CHAMPLIN PETROLEUM CO.	GERRY,E.T.				
ORG.OF ECON.COOP.&DEVEL.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		73 PR
OTARD COGNAC-FRANCE					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		70 PR
OTTO WOLFF A.G.					
EXXON CORP.	WOLFF VON AMERONGEN,OTTO		71 PR	PRESIDENT	72 74
OUR LADY OF THE LAKE COLL.,SAN ANTON					
MOBIL OIL CORPORATION	MOORE,FRED H.		61 66	TRUSTEE	
OUTDOOR SPORTS INDUSTRY					
HAMILTON BROTHERS,INC.	GATES,CHARLES C. JR.		69 PR		73 PR
OVERSEAS AUTO PARTS					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		74 PR
OVERSEAS DEVELOPMENT COUNCIL					
STD OIL CO. OF INDIANA	SWEARINGEN,JOHN E.	CHAIR.OF BOARD	52 PR		69 PR
EXXON CORP.	COLLADO,EMILIO G.		60 PR		69 72
OWEN DEV. CO.					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		61 PR
OWENS-CORNING FIBERGLASS CORP.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		60 PR
EXXON CORP.	MORGENS,HOWARD J.		67 69		67 68
CONTINENTAL OIL CO.	NORSTAD,LAURIS			CHAIR.OF EXEC.COMM.	63 PR
CONTINENTAL OIL CO.	MCLEAN,JOHN G.				71 74
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.				73 PR
OWENS-ILLINOIS,INC.					
MARATHON OIL COMPANY	MULFORD,RAYMON H.		66 73	CHAIR.OF BOARD CHIEF EXEC.OFFICER	
PA.COUN.ON ARTS VIS.ARTS ADVIS.PAN.					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
PACCAR,INC					
STANDARD OIL CO.OF CALIF.	PIGGOTT,CHARLES M.			PRESIDENT	
PACIFIC CAR & FOUNDRY CO.					
STANDARD OIL CO.OF CALIF.	MCCONE,JOHN A.				
PACIFIC COAST GAS ASS'N.					
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PACIFIC GAS & ELECTRIC CO.					
STANDARD OIL CO.OF CALIF.	PACKARD,DAVID				
SHELL OIL COMPANY	BLACK,J.B.		50 65		
SHELL OIL COMPANY	BLACK,J.B.		50 65	FMR CHAIR.OF BOARD	
SHELL OIL COMPANY	BLACK,J.B.		50 65	FMR CHAIR.OF BOARD	
PACIFIC INDEMNITY CO.					
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR		
PACIFIC LIGHTING CORP.					
UNION OIL CO. OF CALIF.	HALE,PRENTIS C.		56 PR		61 PR
PACIFIC MUTUAL LIFE INS. CO.					
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR		59 PR
STANDARD OIL CO.OF CALIF.	MCCONE,JOHN A.				
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
MONSANTO COMPANY	HOOVER,ROBERT JR.		58 69		
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR		
PACIFIC NATL. BANK OF WASHINGTON					
STANDARD OIL CO.OF CALIF.	ALLEN,WILLIAM M.				
PACIFIC TELEPHONE & TELEGRAPH CO.					
UNION OIL CO. OF CALIF.	DI GIORGIO,ROBERT	CHAIR.OF BOARD CHIEF EXEC.OFFICER	58 PR		70 PR
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
PAISANO RANCH					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR	OWNER	67 PR
PALATINE NATL. BANK					
UNION OIL CO. OF CALIF.	MCCONNOR,WILLIAM S.	SR.VICE PRESIDENT	73 PR		69 PR
PALOMAR FINANCIAL					
GULF OIL CORPORATION	SAVAGE,ROYCE H.		64 69		66 74
PAN AIR CORP.					
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			57 PR
PAN AMERICAN BANCSHARES,INC.					
TEXACO,INC.	LONG,AUGUSTUS C.	CHAIR.OF EXEC.COMM.	50 PR		70 73
PAN AMERICAN WORLD AIRWAYS					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		73 74
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		70 71
MONSANTO COMPANY	ROCKEFELLER,JAMES S.		66 73		
PANHANDLE COOPERATIVE ASSN.					
NATL COOP. REFINERY ASSN	CHELF,ROY		73 PR		
PANHANDLE MUTUAL HAIL HAIL ASSN.					
MESA PETROLEUM COMPANY	LATHAM,JESS B. JR.		64 68	SECRETARY TREASURER	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PARADE PUBLICATIONS,INC.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR		71 73
PARAHO DEVELOPMENT CORP.					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		71 PR
PARKER FDN.,INC.					
TEXACO,INC.	PARKER,GEORGE JR.		61 PR		64 PR
PARKER-HANNIFIN CORP.					
STANDARD OIL CO. OF OHIO	WOLF,ALFRED C.	SR.VICE PRESIDENT	50 68		
DIAMOND SHAMROCK OIL & GAS	BENSON,KEITH S.		69 71		
PARKS COUNCIL					
AMERADA HESS CORP.	ORESMAN,ROGER B.		69		
PAULEY PETROLEUM INC.					
GEN AMER. OIL CO. OF TEXAS	CONLEY,PAUL A.				58 PR
PEACE PIPELINE LTD.					
HUSKY OIL LIMITED	LARSEN,ARNOLD		69 74	SR.VICE PRESIDENT	
PECOS CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		68 PR
EL PASO NATURAL GAS CO	WAGNER,FRED T.		46 71		64 70
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		64 PR
EL PASO NATURAL GAS CO	PETTY,TRAVIS H.	EXEC.VICE PRESIDENT	71 PR		70 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		64 73
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		64 65
EL PASO NATURAL GAS CO	HOWELL,BEN R.		65 69		65 68
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		64 PR
PEE DEE CHEMICAL CORP.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 66
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 66
PEERLESS OIL AND CHEMICAL CORP.					
COMMONWEALTH OIL REFINING	CAREY,EDWARD M.		53 66		
PENN CENTRAL CO.					
SOUTHWSTRN OIL & REFINING	O'HERRON,JONATHAN		70 70		
PENN CENTRAL RAILROAD					
MOBIL OIL CORPORATION	BAKER,GEORGE P.		64 70	TRUSTEE	70 PR
PENN'S SOUTHWEST ASSN.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	PRESIDENT	72 PR
PENNSYLVANIA COUNCIL ON THE ARTS					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
PENNSYLVANIA ECONOMY LEAGUE					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		74 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PENNSYLVANIA GRADE CRUDE OIL ASSOC.					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		64 PR
PENNZOIL ARGENTINA,S.A.					
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		68 PR
PENNZOIL ASIATIC INC.					
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		70 PR
PENNZOIL CHEMICAL,INC.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		72 PR
PENNZOIL CO.					
MESA PETROLEUM COMPANY	KIRKLAND,JOHN D.		68 72	VICE PRESIDENT	
PENNZOIL CO. IRELAND					
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		72 PR
PENNZOIL CO. NORGE					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		69 PR
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		69 PR
PENNZOIL CO.,LOS ANGELES DIV.					
PENNZOIL CO.	JOHNSON,LELAND F.		68 PR	PRESIDENT	
PENNZOIL CO.,PA.					
PENNZOIL CO.	PARKES,ED		68 72		66 68
PENNZOIL CO.	MCDOWELL,T.L.		68 70		54 68
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		63 68
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		62 68
PENNZOIL CO.	KERR,BAINE P.	GENERAL COUNSEL CHAIR.OF EXEC.COMM.	68 PR		64 68
PENNZOIL CO.	JOHNSON,LELAND F.		68 PR		57 68
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		66 68
PENNZOIL CO.	GILPATRICK,R.B. JR.		68 PR		61 66
PENNZOIL CO.	GAMMELL,JAMES G.S.		68 PR		63 66
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		66 68
PENNZOIL CO.	COLEMAN,GEORGE L.		68 PR		63 68
PENNZOIL CO.	BROWN,W.L. LYONS		68 72		64 68
PENNZOIL CO.	BOVAIRD,DAVIS D.		68 68		63 68
PENNZOIL DE PARAGUAY,S.A.					
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		69 PR
PENNZOIL DEL CARIBE,S.A.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		68 73
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		64 73
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		64 67
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		67 PR
PENNZOIL DEL ECUADOR,C.A.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		65 73

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		65 67
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		67 PR
PENNZOIL FUNDING,INC.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		70 PR
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		70 PR
PENNZOIL INTNL CO.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		67 PR
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		67 PR
PENNZOIL LOUIS.& TEXAS OFFSHORE,INC.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		71 PR
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		71 PR
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		71 PR
PENNZOIL NEDERLAND CO.					
PENNZOIL CO.	PARKES,ED		68 72		61 67
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		71 PR
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		67 PR
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		65 71
PENNZOIL NORTHERN LTD.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		64 68
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		68 PR
PENNZOIL OF AUSTRALIA,LTD.					
PENNZOIL CO.	MORRIS,W.P.		69 72		69 72
PENNZOIL CO.	ATWOOD,G.E.		72 PR		69 PR
PENNZOIL OFFSHORE GAS OPERATORS,INC.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		70 PR
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		70 PR
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		70 PR
PENNZOIL OVERSEAS B.V.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		68 PR
PENNZOIL PACIFIC LTD.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		69 PR
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		69 PR
PENNZOIL PETROLEUMS LTD.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		70 71
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		70 71
PENNZOIL CO.	JOHNSON,LELAND F.		68 PR		70 71
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		71 PR
PENNZOIL PRODUCING CO.					
PENNZOIL CO.	PARKES,ED		68 72		55 67
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		70 70
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		67 PR
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		65 70

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PENNZOIL UNITED FDN.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		68 PR
PENNZOIL(U.K.)CO.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		70 PR
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		70 PR
PENNZOIL(U.K.)LTD.					
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		71 PR
PENNZOIL CO.	HOVER,W.A.	VICE PRESIDENT	72 PR		71 PR
PENRECO,INC.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		74 PR
PEOPLES LIFE INS. CO.					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		61 71
PEOPLES NATL BANK,TYLER,TEXAS					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		61 PR
GEN AMER. OIL CO. OF TEXAS.	STEPHENS,JOHN M.		PR	FMR CHAIR.OF BOARD	
PEOPLES SAVINGS & LOAN ASSOC.					
PHILLIPS PETROLEUM CO.	MINTER,LLOYD G.	SR.VICE PRESIDENT GENERAL COUNSEL	71 PR		73 PR
PEOPLES SVGS BANK OF YONKERS,N.Y.					
TEXAS OIL & GAS CO.	HUBER,AUGUST		70 PR		61 73
PEPPER PIKE CLUB CO.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
PEPSICO INC.					
EXXON CORP.	LEARSON,T. VINCENT		69 PR		74 74
PERFORMANCE UNLIMITED,INC.					
PENNZOIL CO.	KIRKLAND,JOHN D.	EXEC.VICE PRESIDENT	72 PR		64 64
PERINI CORP.					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		69 PR
PERMIAN BANK & TRUST CO.					
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				69 PR
PERMIAN BASIN BETTER BUSINESS BUREAU					
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR		72 PR
PERMIAN BASIN OIL SHOW					
LONE STAR GAS CO.	POOL,FRANK M.				
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		70 PR
PERMIAN BASIN PETROLEUM ASSN.					
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		70 PR
PERMIAN CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR		66 66
PERRY R. BASS,INC.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
PERSONAL INVESTMENTS					
PHILLIPS PETROLEUM CO.	BEGRISCH,F.W.		64 68		
PERU TRUST CO.,PERU,IND.					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71		
PERUVIAN-AMERICAN ASSOC.					
BELCO PETROLEUM CO	BELFER,ROBERT A.	PRESIDENT	59 PR		70 PR
PET INC.					
UNION TEXAS PETROLEUM	TROWBRIDGE,ALEXANDER B.		68 PR		
PETER BENT BRIGHAM HOSP.,BOSTON					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR	TRUSTEE	PR
PETRO-TEX CHEMICAL CORP.					
STD OIL CO. OF INDIANA	MALOTT,ROBERT H.		73 PR		72 PR
MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR		
PETROFINA CANADA LTD.					
AMERICAN PETROFINA, INC.	CAMPO,ALFREDO F.		56 PR	CHAIR.OF BOARD	53 PR
PETROFINA,S.A.					
AMERICAN PETROFINA, INC.	WOLTERS,BARON		56 65		56 PR
AMERICAN PETROFINA, INC.	MEUS,JACQUES		63 PR		56 PR
AMERICAN PETROFINA, INC.	GALLAND,RICHARD I.	PRESIDENT	58 PR		74 PR
AMERICAN PETROFINA, INC.	DE LESPAUL,ADOLPHE D		73 PR		
PETROL MARINE CO.,DALLAS					
HUNT OIL CO.	BEEMAN,W.B.	TREASURER SECRETARY	64 PR		71 PR
PETROLEOS HONDURENOS					
CLARK OIL & REFINING CORP.	CRICHTON,JOHN A.		72 PR		56 PR
PETROLEUM CLUB OF OKLA. CITY					
KERR-MCGEE CORP.	SEALE,A.T.F.	FMR VICE PRESIDENT	65 PR		66 68
PETROLEUM HEAT&POWER					
BURMAH OIL INC.	BALLARD,WALTER L.	EXEC.VICE PRESIDENT	71 74		
PHARMACEUTICAL MANUFACTURERS ASSOC					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		73 PR
PHELPS DODGE CORP.					
MONSANTO COMPANY	PALMER,HOWARD L.		72 PR		
MARATHON OIL COMPANY	DONNELL,JAMES C. II	CHAIR.OF BOARD	36 PR		66 PR
EL PASO NATURAL GAS CO	SCHNEIDER,FRANZ		57 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PHILADELPHIA NATIONAL BANK MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR		
PHILCON CORP. DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
PHILIPS INDUSTRIES INC. EXXON CORP.	LEARSON,T. VINCENT		69 PR		73 73
PHILIPS PLANTING CO.,LTD. EXCHANGE OIL AND GAS CORP.	PHILLIPS,NATHANIEL P.				69 PR
PHILLIPS PACIFIC CHEMICAL CO. EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		
PHILLIPS RYAN INTNL STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
PHILTEX CORP. DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
PHIPPS HOUSES TEXACO,INC.	PHIPPS,OGDEN		58 PR		40 PR
PHYSICS INTNL. CO. UNION OIL CO. OF CALIF. STANDARD OIL CO.OF CALIF.	HALE,PRENTIS C. WASSON,E. HORNSBY		56 PR		64 PR
PICKLANDS, MATHER AND COMPANY DIAMOND SHAMROCK OIL & GAS	SHERWIN,JOHN		69 73		
PIERSON,HELDRING & PIERSON CITIES SERVICE CO.	VAN MARKEN,EVERT P.		69 PR	PARTNER	
PILGRIMS OF THE U.S. TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		63 PR
PINE MANOR JUNIOR COLLEGE GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR	TRUSTEE	
PITFIELD,MCKAY,ROSS & CO.LTD,TORONTO HUSKY OIL LIMITED	PITFIELD,WARD CHIPMAN		67 PR	PRESIDENT	PR
PITTSBURGH ATHLETIC CO.,INC. GULF OIL CORPORATION	DENTON,FRANK R.		59 71		60 69
PITTSBURGH BALLET THEATRE,INC. GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	TRUSTEE	74 PR
PITTSBURGH CHAMBER MUSIC SOCIETY GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
PITTSBURGH CLEARING HOUSE ASSN. GULF OIL CORPORATION	DENTON,FRANK R.		59 71	PRESIDENT	47 65

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PITTSBURGH PLAN FOR ART					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
PITTSBURGH POST,AMER.ORDNANCE ASSN.					
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		50 66
PITTSBURGH REGIONAL PLANNING ASSN.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	PRESIDENT	59 63
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		54 PR
PITTSBURGH SYMPHONY SOCIETY					
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		73 PR
PITTSBURGH URBAN TRANSIT COUNCIL					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		73 PR
PITTSBURGH ZOOLOGICAL SOCIETY					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
PLACER DEVELOPMENT,LTD.					
CHAMPLIN PETROLEUM CO.	TAYLOR,V.F. JR.				
PLANNED MARKETING ASSOC. INC.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
PLANNED PARENTHOOD WORLD POP.,L.A.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		70 PR
PLATOFF,HEFTLER & HARKER					
EL PASO NATURAL GAS CO	HEFTLER,GEORGE			ATTORNEY	
PLAYBOY ENTERPRISES,INC.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		71 73
PLAZA CLUB					
FOREST OIL CORP.	CASEY,MARTIN F.	CHAIR.OF EXEC.COMM. VICE PRESIDENT	64 PR		72 PR
PLAZA COMMERCE BANK					
BURMAH OIL INC.	THOMPSON,W.H. JR.	FMR PRESIDENT FMR VICE PRESIDENT	71 74		
BURMAH OIL INC.	THOMPSON,W.H.		74 PR		
POCAHANTAS LAND CORP.					
UNION TEXAS PETROLEUM	FISHWICK,JOHN P.		73 PR		
POLIFILM DE VENEZUELA,S.A.					
DIAMOND SHAMROCK OIL & GAS	STRAUSS,FRED S.		66 PR		
POMONA COLLEGE					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	TRUSTEE	
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71	TRUSTEE	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PONTIAC REFINING CORP.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR	CHIEF EXEC.OFFICER	42 65
POOL AMERICAS,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				72 PR
LONE STAR GAS CO.	SINGER,S.R.				72 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	POOL,FRANK M.				72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		72 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		72 PR
LONE STAR GAS CO.	FOWLER,R.G.				72 PR
LONE STAR GAS CO.	COVINGTON,G.M.				74 PR
POOL AUSTRALIA,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				72 PR
LONE STAR GAS CO.	SINGER,S.R.				72 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				72 PR
LONE STAR GAS CO.	POOL,FRANK M.				72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		72 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		72 PR
LONE STAR GAS CO.	FOWLER,R.G.				72 PR
LONE STAR GAS CO.	COVINGTON,G.M.				74 PR
POOL CO.(FORMERLY MOBILE WELL SERV.)					
LONE STAR GAS CO.	WILLIAMS,R.B.				71 PR
LONE STAR GAS CO.	SINGER,S.R.				71 PR
LONE STAR GAS CO.	SATTERWHITE,W.T.				71 PR
LONE STAR GAS CO.	POOL,FRANK M.			VICE PRESIDENT	72 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		71 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		71 PR
LONE STAR GAS CO.	FOWLER,R.G.				72 PR
LONE STAR GAS CO.	COVINGTON,G.M.				74 PR
POOL INTERNATL,INC.					
LONE STAR GAS CO.	WILLIAMS,R.B.				73 PR
LONE STAR GAS CO.	SINGER,S.R.				73 73
LONE STAR GAS CO.	SATTERWHITE,W.T.				73 PR
LONE STAR GAS CO.	POOL,FRANK M.				73 PR
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		73 PR
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		73 PR
LONE STAR GAS CO.	FOWLER,R.G.				73 PR
LONE STAR GAS CO.	COVINGTON,G.M.				74 PR
PORTEC INC.					
STANDARD OIL CO. OF OHIO	BUCHANAN,DEWITT W. JR.		69 PR		
PORTLAND GENERAL ELECTRIC CO.					
CHAMPLIN PETROLEUM CO.	ROTH,R.W.	PRESIDENT CHIEF EXEC.OFFICER			
PORTO DIEZ-PORTUGAL					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		68 PR
POST CO.					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
POTASH INST. OF NORTH AMERICA					
PENNZOIL CO.	MORRIS,W.P.		69 72		57 73
PENNZOIL CO.	ATWOOD,G.E.		72 PR		72 PR
POTLATCH FORESTS,INC.					
MONSANTO COMPANY	PALMER,HOWARD L.		72 PR		
PPG INDUSTRIES,INC.					
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		61 71
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		65 PR
COMMONWEALTH OIL REFINING	JUNGE,JAMES F.		58 72		
PRECISION MOTORS,DBA CLASSIC IMPORTS					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		73 PR
PRECISION STEEL WAREHOUSE,INC.					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		42 PR
PREMIER PETROCHEMICAL CO.					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
PRES.COMM.ON AN ALL-VOL.ARMED FORCE					
CONTINENTAL OIL CO.	NORSTAD;LAURIS				69 70
PRES' COMM.ON FINAN.STRUCT.& REGULS.					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		71 72
PRESBYTERIAN HOSPITAL,N.Y.					
TEXACO,INC.	LONG,AUGUSTUS C.	CHAIR.OF EXEC.COMM.	50 PR		61 PR
TEXACO,INC.	GRANVILLE,MAURICE F.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	70 PR		73 PR
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70	TRUSTEE	
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 PR
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
PRESBYTERIAN MED. CTR,DENVER					
FOREST OIL CORP.	MILLER,WILLIAM D.		64 PR		74 PR
PRESBYTERIAN-UNIVERSITY HOSPITAL					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	TRUSTEE	67 PR
PRESIDENT'S EXPORT COUNCIL					
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		73 PR
PRESIDENTS SCIENCE ADVISORY COMM.					
EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 70
PRESTON M. GEREN & ASSOCIATES					
LONE STAR GAS CO.	GEREN,PRESTON M. JR.		73 PR		
PRESTON TRAILS HOMEOWNERS ASSOC.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
PRINCETON INN					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		59 69
PRINCETON U.COUN.FOR UNIV.RESOURCES					
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
PRINCETON UNIV.					
PHILLIPS PETROLEUM CO.	PIEL,WILLIAM JR.		64 PR		64 PR
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		63 PR
PRIVATE INVESTMENT CO. FOR ASIA S.A.					
EXXON CORP.	COLLADO,EMILIO G.		60 PR		69 73
PROCTER & GAMBLE CO.					
STANDARD OIL CO. OF OHIO	SHEPARD,HORACE A.		65 PR		
MOBIL OIL CORPORATION	MCGHEE,GEORGE C.		69 PR		
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
EXXON CORP.	MORGENS,HOWARD J.		67 69	PRESIDENT	67 68
CONTINENTAL OIL CO.	MCLEAN,JOHN G.				73 74
PRODUCERS PACKING CO.					
FARMLAND INDUSTRIES,INC.	VOTH,GEORGE J.		64 68		64 69
FARMLAND INDUSTRIES,INC.	DILLINGER,TROY		64 72		64 68
PROGRESSIVE OIL CO. OF INDIANA,INC.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		64 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 72
PROSPECT INVESTMENT CORP.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		64 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		65 71
PRUDENTIAL INS. CO. OF AMER.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		65 68
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY				
EXXON CORP.	RATHBONE,MONROE J.		49 65		64 64
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		70 74
PRUDENTIAL INS. CO.OF G.B.(IN N.Y.)					
MONSANTO COMPANY	TEMPLE,ALAN H.		59 66		
PUBLIC ADVIS.COMM.ON U.S.TRADE POLI.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		68 69
PUBLIC FINANCE SERVICE,INC.					
PHILLIPS PETROLEUM CO.	FORTENBAUGH,SAMUEL B.JR.		64 68		64 68
PUBLIC MEMBERS ASSOC.(STATE DEPT.)					
LION OIL CO.	LEVIN,N.W.				65 65
PUBLIC SERVICE CO. OF OKLAHOMA					
PENNZOIL CO.	BOVAIRD,W.J.		72 PR		71 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PENNZOIL CO.	BOVAIRD,DAVIS D.		68 68		64 71
PUEBLO INTERNATIONAL,INC.					
COMMONWEALTH OIL REFINING	CAMERO,SERGIO		74 PR	VICE PRESIDENT	
PUEBLO SUPERMARKETS,INC.					
COMMONWEALTH OIL REFINING	BIRD,ESTEBAN A.		67 69		
PUERTO RICAN CEMENT CO.,INC.					
COMMONWEALTH OIL REFINING	RIVERA,ANGEL M.		70 PR		
PUERTO RICO INVESTMENT FUNDS, INC.					
COMMONWEALTH OIL REFINING	DESCARTES,SOL L.		61 PR		
PUERTO RICO TELEPHONE CO.					
COMMONWEALTH OIL REFINING	BIRD,ESTEBAN A.		67 69		
PULLMAN,INC.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		46 72
PUROLATOR,INC.					
GULF OIL CORPORATION	WYCKOFF,GEORGE W.		64 68		66 PR
PUTNAM FUNDS					
SUN OIL CO.	POUNDS,WILLIAM F.		73 PR		71 PR
PUTNAM TRUST CO.					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				54
PUTNAM TRUST CO. OF GREENWICH					
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
QUAKER OATS CO.					
STD OIL CO. OF INDIANA	KIMPTON,LAWRENCE A.		58 71		68 PR
R.C. OWEN CO.					
MURPHY OIL CO.	OWEN,RALPH		60 PR		
R.H. MACY & CO. INC.					
DIAMOND SHAMROCK OIL & GAS	DILWORTH,J. RICHARDSON		69 73		
R.H.FULTON & CO.					
MESA PETROLEUM COMPANY	FULTON,ROYCE H.		64 65	PRESIDENT	
R.J. REYNOLDS INDUSTRIES,INC.					
STD OIL CO. OF INDIANA	CUDD,HERSCHEL H.	SR.VICE PRESIDENT	63 PR		74 PR
R-N CORP.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
RACQUET CLUB HOTEL,INC.					
COMMONWEALTH OIL REFINING	REXACH,HENRY C.		70 73		
RADIATION INC.					

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
RADIO ENTERPRISES,INC.					
MURPHY OIL CO.	O'CONNOR,J.A. JR.		55 PR		46 PR
RADIO FREE EUROPE FUND					
EXXON CORP.	HAIDER,MICHAEL L.		59 69	CHAIR.OF BOARD	67 68
RAINBOW AUTO TOPS LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
RALSTON PURINA CO.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR		73 PR
GULF OIL CORPORATION	DEAN,R.HAL		70 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	61 PR
RAND CORP.					
STANDARD OIL CO. OF OHIO	GLENNAN,T.KEITH		58 58		
MONSANTO COMPANY	THOMAS,CHARLES ALLEN	CHAIR.OF BOARD	42 68		
EXXON CORP.	SHEPARD,DAVID A.		51 66		65 65
CONTINENTAL OIL CO.	NORSTAD,LAURIS				63 73
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		70
RANDOLPH-MACON WOMEN'S COLLEGE					
PENNZOIL CO.	PARKES,ED		68 72		56 61
RANGER INSURANCE CO.					
SHELL OIL COMPANY	MCASHAN,S.M.		63 PR		
RAVINIA FESTIVAL ASSOC.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR	TRUSTEE	68 PR
RAYONIER,INC.(NOW I.T.T.RAYONIER)					
APCO OIL CORP.	ROSS,ARTHUR		68 PR		51 68
RAYTHEON CO.					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		PR
RCA					
AMERADA HESS CORP.	HAGERTY,HARRY C.		69		
REAL PETROLEUM CO.					
CLINTON OIL CO.	UEDA,NORMAN Y. DR.		71 PR		69 71
CLINTON OIL CO.	SPELLMAN,J.C.		67 71		69 70
CLINTON OIL CO.	ROETHENMUND,OTTO E.		71 72		69 71
CLINTON OIL CO.	PARRISH,L.W.		66 73		69 71
CLINTON OIL CO.	MORRIS,JOHN A.		71 73		69 71
CLINTON OIL CO.	MORCK,WESLEY		63 65		69 71
CLINTON OIL CO.	MILLER,DON P.		71 PR		69 71
CLINTON OIL CO.	GAMELSON,LYNDON		67 73		69 70
CLINTON OIL CO.	CRONIN,STEWART		70 71		70 70
CLINTON OIL CO.	COGGINS,PETER R. M.D.		71 72		69 71
CLINTON OIL CO.	CLINTON,REALTO P.	OWNER	63 73		69 71
CLINTON OIL CO.	BECKOFF,OSCAR		71 73		69 71

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CLINTON OIL CO.	AVERY,WILLIAM H.		71 73		69 71
REALBANC,INC. CHAMPLIN PETROLEUM CO.	MILLER,M.F.				
REALTIME SYSTEMS,INC. APCO OIL CORP.	WOODFIN,GENE M.		60 PR		67 68
REALTY INCOME TRUST CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		69 PR
REAVIS & MCGRATH EXCHANGE OIL AND GAS CORP.	REAVIS,C. FRANK			ATTORNEY PARTNER	
RECKITT & COLMAN S.A.-FRANCE TEXACO,INC.	GRANARD,THE EARL OF		72 PR		71 PR
RECKITT & COLMAN-U.K. TEXACO,INC.	GRANARD,THE EARL OF		72 PR		73 PR
RECLAIMED ISLAND LANDS CO. EXCHANGE OIL AND GAS CORP.	KUECHLER,HENRY N. 3RD				63 PR
RED BALL MOTOR FREIGHT DELHI INTERNATIONAL OIL CORP	CLARK,EDWARD A.	ATTORNEY	69 PR		
RED FEATHER GAS & OIL,JAMESTOWN,TENN PHILLIPS PETROLEUM CO.	KEELER,W.W.	FMR CHAIR.OF BOARD	64 74		73 PR
RED SNAPPER PIPELINE CO. KERR-MCGEE CORP.	SEALE,A.T.F.	FMR VICE PRESIDENT	65 PR		65 70
REEF CORP. KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 67
REEF FIELD GASOLINE CORP. KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 67
REFINERIA PETROL.DE GUATAMALA-CALIF. STANDARD OIL CO.OF CALIF.	KITTO,C.W.	VICE PRESIDENT			71 PR
REG.REG.COORD.CL.FOR POST-SEC.EDUC. TEXACO,INC.	MCGILL,WILLIAM J.		73 PR		72 PR
REGIONAL INDUS.DEVEL.CORP.OF S.W.PA. GULF OIL CORPORATION CONTINENTAL OIL CO.	DENTON,FRANK R. CORCORAN,JOHN		59 71		55 PR 67 PR
REPUBLIC EDUCATION INSTITUTE,INC. MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
REPUBLIC NATL BANK LONE STAR GAS CO.	DAVIES,ALFRED I.		67 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
REPUBLIC NATL BANK OF DALLAS					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
GEN AMER. OIL CO. OF TEXAS	MEADOWS,ALGUR H.	CHAIR.OF BOARD CHAIR.OF EXEC.COMM.	PR	FMR VICE PRESIDENT	64 PR
GEN AMER. OIL CO. OF TEXAS	BARNES,WILLIAM P.	PRESIDENT	64 PR		74 74
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
REPUBLIC STEEL CORP.					
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		66 PR
STANDARD OIL CO. OF OHIO	GLENNAN,T.KEITH		58 58		
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR	PRESIDENT	68 PR
REPUBLIC SUPPLY CO.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
RESERVE MINING CO.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
RESERVE NATL INS. CO.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		71 PR
KERR-MCGEE CORP.	HARRIS,GRADY D. JR.				65 PR
RESOURCE ANALYSIS & MANAGEMT GROUP					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR	PARTNER	69 PR
RESOURCES DEVELOPMENT CORP.					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 68
RESOURCES FOR THE FUTURE,INC.					
CONTINENTAL OIL CO.	PACE,FRANK,JR.				60
REXCO INDUSTRIES,INC.					
COMMONWEALTH OIL REFINING	REXACH,HENRY C.		70 73		
REYNOLDS METAL CO.					
CITIES SERVICE CO.	MCGILLICUDDY,JOHN F.		70 PR		
RHEEM CANADA LTD.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR	CHAIR.OF BOARD	47 50
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		47 PR
RHEEM MFG. CO.					
KERR-MCGEE CORP.	JORGENSEN,EARLE M.		67 PR		65 74
RHEINGOLD CORP.					
UNION TEXAS PETROLEUM	BISSINGER,FREDERICK L.	VICE-CHAIR.OF BOARD CHIEF OPER.OFFICER	66 PR		
RICE UNIV.					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR	TRUSTEE	68 PR
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		45 70

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
RICH'S					
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		71
RICHLAND DEVELOPMENT CORP.					
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		70 PR
RIDC INDUS. DEVEL. FUND					
PENNZOIL CO.	GILPATRICK,R.B. JR.		68 PR		73 PR
RIDDER PUBLICATIONS,INC.					
SHELL OIL COMPANY	BLACK,J.B.		50 65		
PHILLIPS PETROLEUM CO.	CLIFFORD,CLARK M.		69 PR		69 PR
RIDER COLLEGE					
UNION TEXAS PETROLEUM	SCHINN,RICHARD R.		73 PR	TRUSTEE	
RIDLEY COLLEGE					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		67 PR
RINASCENTE(CHAIN OF DEPT. STORES)					
EXXON CORP.	COLONNA DI PALIANO,GUIDO		71 PR		72 74
RIO-TINTO-ZINC CORP. LTD.					
AMERADA HESS CORP.	LITTMAN,MARK,Q.C.		73		
RIT CORP.(FMLY SEXOSN BROTHERS)					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		64 PR
RIVER OAKS BANK & TRUST CO.					
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			71
RIVER VALLEY RANCH,TULSA					
CITIES SERVICE CO.	NOLLEY,GEORGE O.		70 PR	CHAIR.OF BOARD	
RIVIANA FOODS INC.					
PENNZOIL CO.	KERR,BAINE P.	GENERAL COUNSEL CHAIR.OF EXEC.COMM.	68 PR		65 PR
RIXSON-FIREMARK,INC.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		72 PR
RNYW					
PHILLIPS PETROLEUM CO.	SEARS,ROBERT N.	SR.VICE PRESIDENT	70 PR		70 PR
ROBERT MORRIS COLLEGE					
CONTINENTAL OIL CO.	CORCORAN,JOHN				69 PR
ROBINSON BRICK & TILE CO.					
HAMILTON BROTHERS,INC.	GATES,CHARLES C. JR.		69 PR		56 PR
ROCKEFELLER FAMILY & ASSOCIATES					
DIAMOND SHAMROCK OIL & GAS	DILWORTH,J. RICHARDSON		69 73	FINANCIAL ADVISOR	
ROCKEFELLER FDN.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		67 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ROCKEFELLER UNIVERSITY					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR	TRUSTEE	PR
ROCKET OIL CO.					
ROCK ISLAND REFINERY CORP.	SIMMONS,M.L.		66 PR		64 PR
ROCKWELL INTNL.					
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR		61 PR
UNION OIL CO. OF CALIF.	HARTLEY,FRED L.	CHAIR.OF BOARD PRESIDENT	60 PR		66 PR
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	
ROCKWELL MFG. CO.					
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		
ROCKWELL STANDARD CORP.					
MARATHON OIL COMPANY	WINGERTER,ROBERT G.		74 PR		
ROCKY MTN.OIL & GAS ASSN.					
LION OIL CO.	TWEEDY,J.B.				64 PR
ROOSEVELT UNIV.					
STD OIL CO. OF INDIANA	MAY,L. CHESTER	VICE PRESIDENT	63 PR	TRUSTEE	73 PR
ROSE-HULMAN INSTITUTE OF TECHNOLOGY					
MARATHON OIL COMPANY	ANDERSON,JAMES D.	SR.VICE PRESIDENT	69 PR		64 PR
ROSS-WITMER,CHARLOTTE,N.C.					
ASHLAND OIL, INC.	ROSS,F.H. JR.		71 PR		
ROTAN MOSLE,INC.					
MESA PETROLEUM COMPANY	SMITH,RICHARD S.		68 73	VICE PRESIDENT	
ROWAN COMPANIES,INC.					
EXCHANGE OIL AND GAS CORP.	KELLIHER,THOMAS G.				72 PR
APCO OIL CORP.	MCCOLLUM,L.FRANKLIN,JR.		72 PR		71 PR
ROYAL BANK OF CANADA					
EXXON CORP.	WHITE,JOHN R.		60 71		65 70
ROYAL DUTCH PETROLEUM CO.					
SHELL OIL COMPANY	WAGNER,G.A.		71 PR	PRESIDENT	
SHELL OIL COMPANY	SPAGHT,M.E.		53 PR		
SHELL OIL COMPANY	LOUDON,J.H.		56 65	CHAIR.OF BOARD	
SHELL OIL COMPANY	BROUWER,L.E.J.		65 71		
ROYAL GORGE CO.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
ROYAL GORGE CO.OF COLORADO					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ROYAL INSURANCE GROUP					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		57 68
ROYAL ONTARIO MUSEUM					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		70 PR
ROYAL PETROLEUM CORP.					
SOUTHWSTRN OIL & REFINING	DAY,WALTER L. JR.		65 67		
SOUTHWSTRN OIL & REFINING	BERRY,ROBERT L.		71 73		
RST INTERNATL,INC.					
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
RTI-WEST INVESTMENTS LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
RUBEROID CO.					
CITIES SERVICE CO.	SHEPARD,LYLE L.	EXEC.VICE PRESIDENT	62 69		
RUSH-PRESBY.-ST.LUKES MEDICAL CENTER					
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR		70 PR
S. PEARSON & SON,LTD.(ENG.)					
ASHLAND OIL, INC.	DOWNWARD.BRIAN S.		70 PR		
S.S. KRESGE CO.					
STANDARD OIL CO. OF OHIO	MCCRACKEN,PAUL W.		72 73		
SAFECO CORP.					
STANDARD OIL CO.OF CALIF.	PIGGOTT,CHARLES M.				
SAFEWAY STORES,INC.					
SHELL OIL COMPANY	BLACK,J.B.		50 65		
SAFRAN PRINTING CO.					
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
SALES EXECUTIVES OF NEW YORK					
CHAMPLIN PETROLEUM CO.	MITCHELL,H.B.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
SALK INST.FOR BIOLOGICAL STUDIES					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR	CHAIR.OF EXEC.COMM. TRUSTEE	69 PR
SALVATION ARMY					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		64 PR
STANDARD OIL CO. OF OHIO	ELLIOTT,SAMUEL H.		49 66		
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
SALZBURG SEMINAR IN AMERICAN STUDIES					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
SAM HOUSTON AREA COUNCIL					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		74 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SAMUEL H. KRESS FDN.					
PHILLIPS PETROLEUM CO.	WESCOE,W.CLARKE,DR.		64 PR		69 PR
SAMUEL MOORE AND CO.					
DIAMOND SHAMROCK OIL & GAS	BRICKER,WILLIAM H.	EXEC.VICE PRESIDENT CHIEF OPER.OFFICER	74 PR		
SAN ANGELO NATL BANK					
LONE STAR GAS CO.	POOL,FRANK M.				
EL PASO NATURAL GAS CO	NOEL,W.D.				55 PR
SAN ANTONIO ZOOLOGICAL SOC.					
FOREST OIL CORP.	DORN,DALE H.	CHAIR.OF BOARD	64 PR		64 PR
SAN JACINTO OIL & GAS CO.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		58 59
SAN-ANN PREMIUM CENTER,INC.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 72
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		72 73
KERR-MCGEE CORP.	KELLY,JAMES J.	PRESIDENT CHIEF OPER.OFFICER	72 PR		73 PR
SAN-ANN SERVICE,INC.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 71
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		71 73
KERR-MCGEE CORP.	KELLY,JAMES J.	PRESIDENT CHIEF OPER.OFFICER	72 PR		73 PR
SAN-ANN TOBACCO,INC.					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 71
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		71 72
SANDERS,SCOTT,SAUNDERS,ET AL					
MESA PETROLEUM COMPANY	SAUNDERS,HOWARD F.		64 68	ATTORNEY PARTNER	
SANTA ANNA TILE CO.					
LONE STAR GAS CO.	JONES,MORGAN JR.		60 PR		
SANTA BARBARA MUSEUM OF ART					
KERR-MCGEE CORP.	COLEFAX,PETER		67 PR	TRUSTEE	73 PR
SANTA CATALINA ISLAND CO.					
TEXACO,INC.	WRIGLEY,WILLIAM		74 PR		56 PR
SANTA FE INDUSTRIES,INC.					
UNION OIL CO. OF CALIF.	HALE,PRENTIS C.		56 PR		66 PR
SANTA FE INTERNATIONAL CORP.					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		69 PR
SARAH C.GETTY TRUST					
GETTY OIL COMPANY	GETTY,J.PAUL	PRESIDENT FMR PRESIDENT	48 PR	TRUSTEE	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SATURDAY REVIEW WORLD, INC.					
MOBIL OIL CORPORATION	MCGHEE, GEORGE C.		69 PR		
SAYRE, VAIL, STEELE & RENKERT					
OCCIDENTAL PETROLEUM CORP.	VAIL, HERMAN L.	ATTORNEY	68 PR		
SCHLAGE LOCK CO.					
STANDARD OIL CO. OF CALIF.	PETERSON, R.A.		70 PR		
SCHNEIDER, BERNET & HICKMAN, INC.					
MESA PETROLEUM COMPANY	LINDSLEY, HENRY D. III		73 74	VICE PRESIDENT	
SCHOOL PICTURES, INC.					
AMERADA HESS CORP.	HEARIN, ROBERT M.		69		
SCHRODER TRUST CO.					
MOBIL OIL CORPORATION	WILLIAMS, ALBERT L.		60 PR		PR
SCIENCE RESEARCH ASSOCIATES					
FELMONT OIL CORP.	BARD, RALPH A., JR.		72 PR		
SCIENTIFIC AMERICAN, INC.					
LION OIL CO.	LEVIN, N.W.				46 PR
SCIS. & NAT. RESOURCES FDN. OF OKLA.					
KERR-MCGEE CORP.	MCGEE, DEAN A.	CHAIR. OF BOARD CHIEF EXEC. OFFICER		TRUSTEE	65 PR
SCOTT PAPER CO.					
SUN OIL CO.	SCRANTON, WILLIAM W.		73 PR		73 PR
SUN OIL CO.	SCRANTON, WILLIAM W.		73 PR		67 71
CITIES SERVICE CO.	GATES, THOMAS S.		61 PR		
SCRANTON LACKAWANNA IND. BLDG. CO.					
SUN OIL CO.	SCRANTON, WILLIAM W.		73 PR		72 PR
SCURRY-RAINBOW CO., LTD.					
CHAMPLIN PETROLEUM CO.	TAYLOR, V.F. JR.				
SEA TRAIN LINES, INC.					
COMMONWEALTH OIL REFINING	BIRD, ESTEBAN A.		67 69		
AMERADA HESS CORP.	ORESMAN, ROGER B.		69		
SEABOARD COASTLINE INDUSTRIES					
MONSANTO COMPANY	ECK, JOHN R.		69 PR		
GEN AMER. OIL CO. OF TEXAS	DANIEL, J.J.		64 PR		64 PR
SEABOARD SURETY CO.					
SHELL OIL COMPANY	MCGUIRE, H.F.		62 PR		
MONSANTO COMPANY	TEMPLE, ALAN H.		59 66		
SEAMAN'S BANK FOR SAVINGS					
CITIES SERVICE CO.	ROMNES, H.I.		67 73		
CHAMPLIN PETROLEUM CO.	EVANS, J.H.				
CHAMPLIN PETROLEUM CO.	BARNETT, F.E.	CHAIR. OF BOARD			

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		CHIEF EXEC.OFFICER			
SEARS BANK & TRUST CO.					
MARATHON OIL COMPANY	PLATTS,JOHN H.		73 PR		
SEARS,ROEBUCK & CO.					
STD OIL CO. OF INDIANA	LIVINGSTON,HOMER J.		56 70		54 70
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		71 PR
LONE STAR GAS CO.	DAVIES,ALFRED I.		67 PR	VICE PRESIDENT	
SEATTLE FIRST NATL BANK					
STANDARD OIL CO.OF CALIF.	PIGGOTT,CHARLES M.				
SECOND BRIT. ASSETS TRUST LTD.					
PENNZOIL CO.	GAMMELL,JAMES G.S.		68 PR		
SECOND FED.STREET FUND,INC.,BOST					
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70		
SECOND FIDUCIARY EXCH. FUND,INC.					
TEXACO,INC.	ROBINSON,DWIGHT P. JR.		58 72		66 71
SECOND INVESTORS CO.,NEW YORK,N.Y.					
PANHANDLE ESTRN PIPE LN.CO	GERRY,LOUIS C.		48 65	FMR PRESIDENT	
SECOND NATIONAL BANK,ASHLAND,KY					
ASHLAND OIL, INC.	BLAZER,PAUL G. JR.		66 PR		
SECOND NEW HAVEN BANK					
ASHLAND OIL, INC.	REIGELUTH,ROBERT S.		68 PR		
SECURITIES INDUSTRY ASSOC.					
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR		
SECURITIES INVESTMENT CO.					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
SECURITY GENERAL LIFE INS. CO.					
ROCK ISLAND REFINERY CORP.	MARTIN,GEORGE C.	SR.VICE PRESIDENT	72 73		64 PR
SECURITY INS. GROUP(DIV. OF TEXTRON)					
ASHLAND OIL, INC.	REIGELUTH,ROBERT S.		68 PR		
SECURITY PACIFIC CORP.					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	69 PR
CHAMPLIN PETROLEUM CO.	LAWLER,O.T.				
SECURITY PACIFIC NATL BANK					
KERR-MCGEE CORP.	COLEFAX,PETER		67 PR		65 72
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	69 PR
CHAMPLIN PETROLEUM CO.	LAWLER,O.T.			CHAIR.OF EXEC.COMM.	
SECURITY STATE BANK-BIG SPRING					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO NATURAL GAS CO	NOEL,W.D.				61 66
SECURITY 1ST NATL BK OF LOS ANGELES					
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68	CHAIR.OF BOARD	65 68
SECURITY-CONNECTICUT LIFE INS. CO.					
ASHLAND OIL, INC.	REIGELUTH,ROBERT S.		68 PR		
SELECMAN & MADDEN					
MESA PETROLEUM COMPANY	SELECMAN,E.H.		68 PR	PARTNER	
MESA PETROLEUM COMPANY	MADDEN,WALES H. JR.		64 74	ATTORNEY PARTNER	
SEQUOIA REFINING CORP.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR	CHIEF EXEC.OFFICER	64 70
SETH M. MILLIKEN FDN,INC.					
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
SETON HALL UNIV.,BD. OF ADVISORS					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		70 70
SEWICKLEY ACADEMY					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	TRUSTEE	53 65
SEXSON BROTHERS,INC.					
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 71
SF AIR CONTROL,INC.					
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
SF AIR PRODUCTS,INC.					
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
SHADY SIDE ACADEMY					
GULF OIL CORPORATION	LEE,JAMES E.		73 PR	TRUSTEE	
SHADYSIDE HOSPITAL					
GULF OIL CORPORATION	BEEGHLY,CHARLES M.		69 PR		61 69
SHAREHOLDER PROSPECTIVES,INC.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		69 73
SHAWMUT ASSN.					
HAMILTON BROTHERS,INC.	MURCHISON,JOHN D.		69 PR		69 PR
SHAWNEE REALTY CORP.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
SHEA GOULD CLIMENKO & KRAMER					
TEXAS OIL & GAS CO.	GOULD,MILTON S.		59 PR	ATTORNEY PARTNER	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SHEARMAN & STERLING					
MONSANTO COMPANY	EATON,FREDERICK M.		47 PR	PARTNER	
SHEARSON,HAMMILL & CO.					
FELMONT OIL CORP.	SAFANIE,MURRAY D.			PARTNER	58 66
SHELL CANADA LTD.					
HUSKY OIL LIMITED	KARTZKE,PAUL LOUIS		70 PR	FMR PRESIDENT	
SHELL CARIBBEAN PETROLEUM CORP.					
COMMONWEALTH OIL REFINING	WALSTROM,JOHN A.		67 PR	FMR PRESIDENT	
SHELL CHEMICAL CO.					
SHELL OIL COMPANY	ST.CLAIR,J.B.	EXEC.VICE PRESIDENT	67 PR	PRESIDENT	
SHELL INTERNATIONAL PETROLEUM CO.					
SHELL OIL COMPANY	HART,R.M.		68 73		
SHELL OIL CO. OF CANADA,LTD.					
SHELL OIL COMPANY	REDMOND,J.F.	FMR VICE PRESIDENT	71 74		
SHELL OIL COMPANY	BRIDGES,H.	PRESIDENT CHIEF EXEC.OFFICER	70 PR		
SHELL PETROLEUM CO.,LTD.					
SHELL OIL COMPANY	WAGNER,G.A.		71 PR		
SHELL OIL COMPANY	MCFADZEAN,F.S.		72 PR		
SHELL PETROLEUM N.V.					
SHELL OIL COMPANY	WAGNER,G.A.		71 PR		
SHELL OIL COMPANY	MCFADZEAN,F.S.		72 PR		
SHELL TRANSPORT AND TRADING CO.,LTD					
SHELL OIL COMPANY	WILKINSON,H.		61 64	MANAGING DIRECTOR	
SHELL OIL COMPANY	MCFADZEAN,F.S.		72 PR	CHAIR.OF BOARD	
SHELL OIL COMPANY	BARRAN,SIR DAVID		64 72	MANAGING DIRECTOR	
SHELTER ISLAND HEIGHTS ASSN.					
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		64 PR
APCO OIL CORP.	KEYSER,PAUL V.	CONSULTANT	72 PR		64 PR
SHELTER ISLAND/GREENPORT FERRY CO.					
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		64 PR
SHERWIN WILLIAMS CO.					
STANDARD OIL CO. OF OHIO	BALDWIN,E. COLIN		63 69	CHAIR.OF BOARD CHIEF EXEC.OFFICER	
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
DIAMOND SHAMROCK OIL & GAS	BENSON,KEITH S.		69 71		
SID RICHARDSON CARBON & GASOLINE					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
SID W. RICHARDSON FDN.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SIGMA MINES(QUEBEC)LTD.					
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR	CHAIR.OF BOARD	
SIGNAL COMPANIES,INC.					
BURMAH OIL INC.	WALKUP,W.E.		70 73		
BURMAH OIL INC.	THOMPSON,W.H. JR.	FMR PRESIDENT FMR VICE PRESIDENT	71 74		
BURMAH OIL INC.	SHUMWAY,F.N.		70 73		
BURMAH OIL INC.	CHITIEA,A.J.		73		
SIGNAL OIL & GAS CO.					
BURMAH OIL INC.	THOMPSON,W.H.		74 PR	PRESIDENT CHIEF EXEC.OFFICER	
SILCO,DALLAS					
HUNT OIL CO.	HILL,A.G.		70 PR		68 PR
SIMULATION SCIENCES					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		69 73
SINGER CO.					
UNION OIL CO. OF CALIF.	HUNT,R.O.		63 PR		68 PR
COMMONWEALTH OIL REFINING	MACGREGOR,IAN K.		72 PR		
SKELLY OIL CO.					
GETTY OIL COMPANY	SILER,WALTER O.	FMR VICE PRESIDENT TREASURER	63 67		63 68
GETTY OIL COMPANY	MILLER,ERNEST B. JR.	EXEC.VICE PRESIDENT CHIEF OPER.OFFICER	73 PR	FMR PRESIDENT	68 73
GETTY OIL COMPANY	BERG,HAROLD E.	VICE PRESIDENT MANAGING DIRECTOR	70 73	PRESIDENT	73 PR
SKIL CORP.					
STD OIL CO. OF INDIANA	CAIN,GEORGE R.		68 72		65 72
SLOAN FDN.					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		70 PR
SLOAN-KETTERING INST.FOR CANCER RES.					
EXXON CORP.	GARVIN,CLIFFORD C. JR.				73 74
EXXON CORP.	FISHER,HAROLD W.		59 69		64 68
EXXON CORP.	BOYER,MARION		55 66		64 65
SLOPE TRACTOR,INC.					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		68 PR
SMITH,KLINE & FRENCH LABS.					
CITIES SERVICE CO.	GATES,THOMAS S.		61 PR		
SMITHSONIAN INST.					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		70 PR
SO. ARIZONA BANK & TRUST CO.					
PENNZOIL CO.	ATWOOD,G.E.		72 PR		71 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SO.CENT.BELL TELEPHONE CO.,MEMPHIS					
MURPHY OIL CO.	MORGAN,ALLEN		73 PR		
SOC.OF PETROL. ENGRS. OF AIME					
MOBIL OIL CORPORATION	NELSON,THEODORE W.	EXEC.VICE PRESIDENT	70 PR		
SOCIETY CORP.					
DIAMOND SHAMROCK OIL & GAS	BENSON,KEITH S.		69 71		
SOCIETY NATL BANK OF CLEVELAND					
DIAMOND SHAMROCK OIL & GAS	BRICKER,WILLIAM H.	EXEC.VICE PRESIDENT CHIEF OPER.OFFICER	74 PR		
DIAMOND SHAMROCK OIL & GAS	BENSON,KEITH S.		69 71		
SOCIETY OF THE NEW YORK HOSPITAL					
TEXACO,INC.	PHIPPS,OGDEN		58 PR		47 68
SOLVAY & CIE.					
UNION TEXAS PETROLEUM	SOLVAY,JACQUES E.		66 PR	CHAIR.OF BOARD	
EXXON CORP.	COLONNA DI PALIANO,GUIDO		71 PR		72 74
SONNEBORN ASSOC.PETROLEUM ASSN.					
BELCO PETROLEUM CO	SCHINDLER,GUSTAVE		68 PR	EXEC.VICE PRESIDENT	
SOOMA					
UNION TEXAS PETROLEUM	BISSINGER,FREDERICK L.	VICE-CHAIR.OF BOARD CHIEF OPER.OFFICER	66 PR	PRESIDENT	
SOUTH PENN OIL CO(DEL.)					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		62 PR
SOUTHCAP PIPE LINE CO.					
UNION OIL CO. OF CALIF.	MCCONNOR,WILLIAM S.	SR.VICE PRESIDENT	73 PR		67 PR
SOUTHDOWN,INC.					
TENNECO INC.	MACKIN,B.JOHN		72 74		PR
SOUTHEASTERN STATE BANK					
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR		70 73
SOUTHERN BROADCASTING CORP.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR	OWNER	59 69
SOUTHERN CAL.SYMPHONY-HOLLYWOOD BOWL					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	VICE PRESIDENT	
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR	FMR CHAIR.OF BOARD	
GETTY OIL COMPANY	GETTY,E.PAUL	CHAIR.OF EXEC.COMM.	65 67		
SOUTHERN CALIF. EDISON,INC.					
STANDARD OIL CO.OF CALIF.	CALL,ASA V.				
SOUTHERN CALIFORNIA EDISON,CO.					
MONSANTO COMPANY	HOOVER,ROBERT JR.		58 69		
KERR-MCGEE CORP.	AUSTIN,LLOYD L.		68 68		65 68

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
SOUTHERN METHODIST UNIV.					
CONTINENTAL OIL CO.	TARKINGTON,A.W.	CONSULTANT			72 PR
SOUTHERN MILLS					
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		68
SOUTHERN PACIFIC CO.					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR		
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR		55 PR
TEXACO,INC.	HARRIS,HENRY U.		35 73		60 72
TENNECO INC.	RUSSELL,D.J.		63 70	CHAIR.OF BOARD	
TENNECO INC.	BIAGGINI,B.F.		70 74	PRESIDENT	PR
SOUTHERN PACIFIC TRANSPORTATION CO.					
TENNECO INC.	BIAGGINI,B.F.		70 74		PR
SOUTHERN RAILWAY					
TEXACO,INC.	WILLIAMS, LANGBOURNE M.	HONORARY CHAIRMAN	58 PR		57 65
SOUTHERN UNION GAS CO.					
DELHI INTERNATIONAL OIL CORP	DENIUS,FRANK W.	ATTORNEY	64 PR		
SOUTHERN UNION PROD.CO.					
DELHI INTERNATIONAL OIL CORP	DENIUS,FRANK W.	ATTORNEY	64 PR		
SOUTHINNS,INC.					
CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
SOUTHLAND LIFE INS. CO.					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
SOUTHLAND PAPER MILLS, INC.					
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		44 PR
SOUTHWEST FABRICATING&WELDING CO.INC					
TENNECO INC.	JUDD,ARDON B.		45 PR		
SOUTHWEST FACTORIES,INC.					
KERR-MCGEE CORP.	KERR,ROBERT S. JR.		65 PR		65 67
SOUTHWEST RESEARCH INSTITUTE					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER		TRUSTEE	65 PR
SOUTHWEST TITLE & TRUST CO.OKLA.CITY					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		65 PR
SOUTHWESTERN BELL TELEPHONE CO.					
TENNECO INC.	HOVERSTOCK,NEWTON K.		72 74	VICE PRESIDENT	
MONSANTO COMPANY	THOMAS,CHARLES ALLEN	CHAIR.OF BOARD	42 68		
SOUTHWESTERN DRUG CORP.					
TENNECO INC.	LOVETT,H.MALCOM		59 72		PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SOUTHWESTERN DRUG-DALLAS					
EL PASO NATURAL GAS CO	NOEL,W.D.				70 PR
SOUTHWESTERN LEGAL FDN.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR	TRUSTEE	73 PR
SOUTHWESTERN LIFE INS CO					
DIAMOND SHAMROCK OIL & GAS	DUNN,J. HAROLD		67 PR		
SOUTHWESTERN MEDICAL FDN.					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
SOUTHWESTERN PUBLIC SERVICE					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
SOUTHWIRE CO.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		68 73
SPALDING REHAB. CTR,DENVER					
FOREST OIL CORP.	MILLER,WILLIAM D.		64 PR		65 70
SPANISH INST.,INC.					
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
CHAMPLIN PETROLEUM CO.	MOORE,G.S.				
SPANISH INTERNATIONAL PAVILION FDN.					
MONSANTO COMPANY	QUEENN,EDGAR M.	CHAIR.OF BOARD	19 68		
SPARTAN INDUSTRIES					
UNION TEXAS PETROLEUM	LOEB,JOHN L.		63 72		
SPARTON CORP.					
CLINTON OIL CO.	SMITH,JOHN J.		73 PR	CHAIR.OF BOARD	50 PR
SPEAR & STAFF,INC.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		72 PR
SPELMAN COLLEGE					
UNION TEXAS PETROLEUM	MINTON,HENRY M.		4 97	TRUSTEE	
SPENCER FOUNDATION					
EXXON CORP.	LEARSON,T. VINCENT		69 PR		72 73
SPENCER TRASK & CO.,INC.					
TEXAS OIL & GAS CO.	HUBER,AUGUST		70 PR	CHAIR.OF BOARD	73 PR
SPERRY & HUTCHISON & CO.					
CITIES SERVICE CO.	MCGILLICUDDY,JOHN F.		70 PR		
SPERRY RAND CORP.					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		69 PR
GETTY OIL COMPANY	BOOTHBY,WILLARD S. JR.		71 PR		
SPOORHOUT,N.V.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TESORO PETROLEUM CORP.	ROTE,JOHN				
SPORT FISHING INST.					
STANDARD OIL CO.OF CALIF.	HAYNES,J.T.	CHAIR.OF BOARD			70 PR
SQUIBB-BEECH NUT,INC.					
UNION TEXAS PETROLEUM	MCCLOY,JOHN J.		55 70		
ST NL BK OF TULSA(NOW 1ST BANCORP.)					
PENNZOIL CO.	BOVAIRD,W.J.		72 PR		66 R1
ST.ANTHONY HOSPITAL					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR	TRUSTEE	66 PR
ST.CHARLES, ILL. CHARITIES					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR
ST.FRANCIS HOSPITAL					
GULF OIL CORPORATION	LOUGHNEY,E.D.		64 70		70 PR
ST.GREGORYS COLLEGE					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR	TRUSTEE	67 PR
KERR-MCGEE CORP.	KELLY,JAMES J.	PRESIDENT CHIEF OPER.OFFICER	72 PR		65 PR
ST.JOE MINERAL CORP.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
CONTINENTAL OIL CO.	CORCORAN,JOHN				70 73
ST.JOHN VIANNEY TRAIN.SCH.FOR GIRLS					
GULF OIL CORPORATION	WARREN,W.K.		64 69		64 PR
ST.JOHN'S UNIVERSITY					
UNION TEXAS PETROLEUM	GIBLIN,E.BURKE		73 PR	TRUSTEE	
MOBIL OIL CORPORATION	TAVOULAREAS,WILLIAM P.	PRESIDENT FMR VICE PRESIDENT	65 PR	TRUSTEE	PR
ST.JOSEPH'S HOSPITAL					
EXCHANGE OIL AND GAS CORP.	KELLIHER,THOMAS G.				66 PR
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		69 PR
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
ST.JOSEPH'S HOSPITAL,HOUSTON					
GETTY OIL COMPANY	KELLIHER,THOMAS G.	FMR VICE PRESIDENT MANAGING DIRECTOR	67 70		
ST.KATHERINE'S/ST.MARK'S SCHOOL					
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.			TRUSTEE	65
ST.LOUIS AMBASSADORS,INC.					
MONSANTO COMPANY	BOCK,HOWARD J.	PRESIDENT	65 72		
ST.LOUIS BASEBALL CARDINALS					
DIAMOND SHAMROCK OIL & GAS	PERSONS,WALLACE R.		65 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ST.LOUIS BI-ST.CHAP.OF AM.NAT.RED CR					
MONSANTO COMPANY	CHRISTIAN,JOHN L.	SR.VICE PRESIDENT	60 68		
ST.LOUIS CHAMBER OF COMMERCE					
MONSANTO COMPANY	CUNNINGHAM,PRESTON	VICE PRESIDENT	71 PR		
ST.LOUIS COUNTY NATIONAL BANK					
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
ST.LOUIS COUNTY YMCA					
MONSANTO COMPANY	CUNNINGHAM,PRESTON	VICE PRESIDENT	71 PR		
ST.LOUIS RESEARCH COUNCIL					
MONSANTO COMPANY	THOMAS,CHARLES ALLEN	CHAIR.OF BOARD	42 68		
MONSANTO COMPANY	HOCHWALT,CARROLL A.	VICE PRESIDENT	49 64		
ST.LOUIS SOUTHWESTERN RAILWAY CO.					
TENNECO INC.	BIAGGINI,B.F.		70 74		PR
ST.LOUIS SYMPHONY SOCIETY					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
MONSANTO COMPANY	SMITH,M.K. JR.		71 PR		
MONSANTO COMPANY	GILLIS,JOHN L.	SR.VICE PRESIDENT	55 PR		
ST.LOUIS UNION TRUST CO.					
MONSANTO COMPANY	THOMAS,CHARLES ALLEN	CHAIR.OF BOARD	42 68		
MONSANTO COMPANY	SOMMER,CHARLES H.	CHAIR.OF BOARD	59 PR		
MONSANTO COMPANY	O'NEAL,HOWARD H.		55 56		
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73	FMR CHAIR.OF BOARD	
DIAMOND SHAMROCK OIL & GAS	PERSONS,WALLACE R.		65 PR		
ST.LOUIS-SAN FRANCISCO RAILWAY CO.					
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		74 PR
ST.LUKES HOSPITAL					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR		70 PR
ST.PAUL INS.CO./ST. PAUL COS. INC.					
EXXON CORP.	CROSS,BERT S.		67 74		67 73
ST.PAUL IRON MINING CO.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
ST.PAUL'S SCHOOL,LONG ISLAND,N.Y.					
MOBIL OIL CORPORATION	TAVOULAREAS,WILLIAM P.	PRESIDENT FMR VICE PRESIDENT	65 PR	TRUSTEE	PR
ST.RAPHAEL S.A.-FRANCE					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		61 PR
ST.REGIS PAPER CO.					
COMMONWEALTH OIL REFINING	LAERI,J.HOWARD		72 PR		
ST.VINCENT HOSPITAL & MEDICAL CEN.					
MARATHON OIL COMPANY	MULFORD,RAYMON H.		66 73		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
STA-LAVAL, INC.					
COMMONWEALTH OIL REFINING	LOCKWOOD,WILLIAM A.		73 PR		
STANDARD BONDED WAREHOUSE,CHARLOTTE					
ASHLAND OIL, INC.	ROSS,F.H. JR.		71 PR		
STANDARD CAR FINANCE CO.					
GULF OIL CORPORATION	WALTON,JOHN F. JR.		64 67		60 72
STANDARD GILSONITE					
MESA PETROLEUM COMPANY	TURNER,JOHN P.		64 67	PRESIDENT	
STANDARD HOMES,INC.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR	VICE PRESIDENT	69 PR
STANDARD LIFE AND ACCIDENT INS.CO.					
GULF OIL CORPORATION	SAVAGE,ROYCE H.		64 69		59 PR
STANDARD LIFE CORP.					
GULF OIL CORPORATION	SAVAGE,ROYCE H.		64 69		73 PR
STANDARD LIFE INS. CO.					
GEN AMER. OIL CO. OF TEXAS	GEAR,GEORGE A.		PR	PRESIDENT	64 PR
STANDARD LUMBER CO.					
DELHI INTERNATIONAL OIL CORP	SEWELL,J.L.		64 PR		
STANDARD OIL CO.(OHIO)					
DIAMOND SHAMROCK OIL & GAS	SHEPARD,HORACE A.		67 PR		
STANDARD TESTING & ENGINEERING CO.					
KERR-MCGEE CORP.	KELLY,JAMES J.	PRESIDENT CHIEF OPER.OFFICER	72 PR		65 PR
STANFORD BK (MERGED WITH UNION,71)					
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.				68 71
STANFORD RESEARCH INST.					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		71 PR
STANDARD OIL CO.OF CALIF.	WASSON,E. HORNSBY			CHAIR.OF BOARD	
STANDARD OIL CO.OF CALIF.	PIGGOTT,CHARLES M.				
STANDARD OIL CO.OF CALIF.	PACKARD,DAVID				
STANDARD OIL CO.OF CALIF.	HAYNES,J.T.	CHAIR.OF BOARD			74 PR
STANDARD OIL CO.OF CALIF.	FOLLIS,R.C.				50 PR
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71	VICE-CHAIR.OF BOARD	
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		72 74
CONTINENTAL OIL CO.	MCLEAN,JOHN G.				71 74
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.			PRESIDENT CHIEF EXEC.OFFICER	68 PR
STANFORD UNIV.					
STD OIL CO. OF INDIANA	KIMPTON,LAWRENCE A.		58 71	TRUSTEE	61 70
SHELL OIL COMPANY	STERLING,J.E.WALLACE		68 PR		
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR	68 71	VICE PRESIDENT	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
		CHAIR.OF BOARD			
STANFORD UNIV. HOSP.					
STANDARD OIL CO.OF CALIF.	O'BRIEN,JAMES E.	VICE PRESIDENT			68 71
STATE BANK OF JACKSONVILLE					
GEN AMER. OIL CO. OF TEXAS	DANIEL,J.J.		64 PR		64 PR
STATE BANK OF KINGMAN					
CLINTON OIL CO.	WOODS,PAUL H.	CHAIR.OF BOARD	73 PR		56 70
STATE BANK OF ST. CHARLES,ILL.					
TEXACO,INC.	NORRIS,LESTER J.		33 73		64 PR
STATE FAIR OF OKLA.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
STATE FAIR OF TEXAS					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
STATE INVESTMENT CO.					
GEN AMER. OIL CO. OF TEXAS	DANIEL,J.J.		64 PR		64 PR
STATE NATL BANK,GREENWICH,CT.					
CITIES SERVICE CO.	BAM,FOSTER		73 PR		
STATE ST. INVESTMENT CORP.					
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		PR
COMMONWEALTH OIL REFINING	BENNETT,GEORGE F.		54 PR	CHAIR.OF BOARD	
STATES MARINE INTERNATIONAL,INC.					
HAMILTON BROTHERS,INC.	STONE,ROBERT G. JR.		69 PR	CHAIR.OF BOARD	
STATT CAPITAL DEVELOPMENT CORP.					
UNION TEXAS PETROLEUM	MCCLOY,JOHN J.		55 70		
STEAM ENGINE SYSTEMS CORP.					
APCO OIL CORP.	BODMAN,SAMUEL B.		73 PR		72 PR
STERLING DRUG CO.					
PHILLIPS PETROLEUM CO.	WESCOE,W.CLARKE,DR.		64 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	69 PR
STERLING IRON & RAILWAY CO.					
CHAMPLIN PETROLEUM CO.	GERRY,E.T.				
STEVENS INSTITUTE OF TECHNOLOGY					
UNION TEXAS PETROLEUM	BISSINGER,FREDERICK L.	VICE-CHAIR.OF BOARD CHIEF OPER.OFFICER	66 PR	TRUSTEE	
MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70	TRUSTEE	
STEWART ENGINEERING CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR		
STOCKTON PROPERTIES,INC.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR	PRESIDENT	72 PR
STOCKTON,WHATLEY,DAVIN & CO.					
GEN AMER. OIL CO. OF TEXAS	WHATLEY,BROWN L.		PR	CHAIR.OF BOARD	64 PR
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR		64 PR
GEN AMER. OIL CO. OF TEXAS	MEADOWS,ALGUR H.	CHAIR.OF BOARD CHAIR.OF EXEC.COMM.	PR		67 PR
GEN AMER. OIL CO. OF TEXAS	HIGGINBOTHAM,FRED C. JR.	SR.VICE PRESIDENT	PR		70 PR
GEN AMER. OIL CO. OF TEXAS	DAVIN,JOSEPH W.		64 PR	VICE PRESIDENT SECRETARY	64 PR
GEN AMER. OIL CO. OF TEXAS	DANIEL,J.J.		64 PR	CHAIR.OF EXEC.COMM.	64 PR
GEN AMER. OIL CO. OF TEXAS	CONNALLY,FREDERICK H.		66 PR		67 PR
GEN AMER. OIL CO. OF TEXAS	BARNES,WILLIAM P.	PRESIDENT	64 PR		67 PR
STONE & WEBSTER,INC.					
TEXACO,INC.	HARRIS,HENRY U.		35 73		50 72
STOP AND SHOP COS.,INC.					
SUN OIL CO.	POUNDS,WILLIAM F.		73 PR		71 PR
STOUFFER FOODS CORP.					
STANDARD OIL CO. OF OHIO	APPLEY,LAWRENCE A.		55 PR		
STROUD & SMITH					
EXCHANGE OIL AND GAS CORP.	SMITH,CECIL L.			ATTORNEY	
STUDENT LOAN MARKETING ASSOC.					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		72 PR
SUBURBAN GENERAL HOSPITAL					
CONTINENTAL OIL CO.	CORCORAN,JOHN				61 PR
SUBURBAN NATL. BANK OF WOODFIELD					
UNION OIL CO. OF CALIF.	MCCONNOR,WILLIAM S.	SR.VICE PRESIDENT	73 PR		74 PR
SULLIVAN&CROMWELL LAW FIRM					
PHILLIPS PETROLEUM CO.	PIEL,WILLIAM JR.		64 PR	PARTNER	
PANHANDLE ESTRN PIPE LN.CO	STORRS,RICHARD S.		66 PR	PARTNER	
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR	ATTORNEY	
SULPHUR EXPORT CORP.					
OCCIDENTAL PETROLEUM CORP.	HOOKER,R.W.		68 70		71 PR
SULPHUR INST.					
PHILLIPS PETROLEUM CO.	JOHNSTONE,L.H.	EXEC.VICE PRESIDENT	74 PR		73 PR
PHILLIPS PETROLEUM CO.	CUBBAGE,T.L.	VICE PRESIDENT	68 71		68 71
PENNZOIL CO.	MORRIS,W.P.		69 72		60 72
SUMMIT DEVEL. CO.					
HUNT OIL CO.	CUNYUS,GEORGE	SR.VICE PRESIDENT	64 PR		64 PR
SUMMIT ENERGY,DALLAS					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
HUNT OIL CO.	HUNT,RAY L.	VICE PRESIDENT	70 PR		
SUN LIFE ASSUR. CO.OFCANADA					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR		66 PR
SUNLITE OIL CO. LTD.					
MURPHY OIL CO.	KENNEDY,EDWIN L.		56 65		
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR		66 PR
SUPERIOR SVGS & LOAN ASSOC.					
FOREST OIL CORP.	CASEY,MARTIN F.	CHAIR.OF EXEC.COMM. VICE PRESIDENT	64 PR		72 73
SURVEYOR FUND INC.					
CLINTON OIL CO.	MORRIS,JOHN A.		71 73		
SURVIVAL TECHNOLOGY,INC.					
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		
SUSQUEHANNA CORP.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		72 PR
SWEETBRIAR COLLEGE					
MURPHY OIL CO.	KELLER,CHRISTOPH JR.		48 PR	TRUSTEE	
SYNTEX CORP.					
UNION OIL CO. OF CALIF.	HALE,PRENTIS C.		56 PR		72 PR
SYRACUSE UNIV.					
UNION TEXAS PETROLEUM	CONNOR,JOHN T.	FMR PRESIDENT CHAIR.OF BOARD	67 PR	TRUSTEE	
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		70 74
SYSTEM IMPLEMENTATION CORP.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		69 74
T. MELLON AND SONS					
GULF OIL CORPORATION	WALTON,JOHN F. JR.		64 67		50 72
T.W. TERMINALS CO.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		55 PR
TAGGART CONSTRUCTION CO.					
HUSKY OIL LIMITED	TAGGART,LLOYD		53 67	CHAIR.OF BOARD	
TANDY CORP.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
TANGLEWOOD BUILDERS CO.					
OCCIDENTAL PETROLEUM CORP.	GORE,ALBERT	EXEC.VICE PRESIDENT	72 PR		
TANKORE CORP.					
STANDARD OIL CO. OF OHIO	DE LANCEY,WILLIAM J.		72 PR		
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TASCOSA GAS CO.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 74
KERR-MCGEE CORP.	LOVE,F.C..		65 PR		65 74
TAUMEB CORP.,LTD.					
COMMONWEALTH CIL REFINING	MACGREGOR,IAN K.		72 PR		
TAX EXECUTIVES INST.					
TEXACO,INC.	YOUNG,WILFROD R.	VICE-CHAIR.OF BOARD GENERAL COUNSEL	72 PR		64 74
TAYLOR CO.					
CLINTON OIL CO.	TAYLOR,VERNON E.		67 73		
TEACHERS COLLEGE					
TEXACO,INC.	MCGILL,WILLIAM J.		73 PR		70 PR
TEACHERS INSUR.& ANNUITY ASSOC.OF AM					
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74	TRUSTEE	71 74
TEAGLE FOUNDATION					
EXXON CORP.	CAMPBELL,NICHOLAS J.		65 66		73 74
EL PASO NATURAL GAS CO	DEAN,ARTHUR H.		57 PR		
TECHNE CORP.					
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		68 PR
TECHNICAL STUDIES INC.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
TECHNOLOGY MANAGEMENT,INC.					
SUN OIL CO.	POUNDS,WILLIAM F.		73 PR		69 73
TELAUTOGRAPH CORP.					
OCCIDENTAL PETROLEUM CORP.	GROMAN,ARTHUR	ATTORNEY	57 PR		72
TELECOM CORP.					
DELHI INTERNATIONAL OIL CORP	DENIUS,FRANK W.	ATTORNEY	64 PR		
DELHI INTERNATIONAL OIL CORP	CLARK,EDWARD A.	ATTORNEY	69 PR		
TELFAIR CORP.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR	FMR PRESIDENT	64 69
TENABLE OIL CO.,DALLAS					
HUNT OIL CO.	HUNT,H.L.	CHAIR.OF BOARD PRESIDENT	64 PR	PRESIDENT	64 PR
TENAX CO.					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		72 PR
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR		72 PR
TENN. CONSOL. COAL CO.					
MURPHY OIL CO.	OWEN,RALPH		60 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TENN. NATURAL GAS LINES,INC.					
MURPHY OIL CO.	OWEN,RALPH		60 PR		
TENNESSEE CORP.					
CITIES SERVICE CO.	WESTLAKE,E.H.		63 66	CHAIR.OF BOARD	
TERRA CHEMICALS INTERNATL,INC.					
DIAMOND SHAMROCK OIL & GAS	HUGHES,JAMES A.	CHAIR.OF BOARD	64 PR		
DIAMOND SHAMROCK OIL & GAS	CASH,C.A.	PRESIDENT CHIEF EXEC.OFFICER	67 PR		
DIAMOND SHAMROCK OIL & GAS	BRICKER,WILLIAM H.	EXEC.VICE PRESIDENT CHIEF OPER.OFFICER	74 PR		
TERRA RESOURCES,INC.					
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		70 72
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		70 PR
FARMLAND INDUSTRIES,INC.	CHELF,ROY		66 PR		73 PR
TERRA TRINIDAD AND TOBAGO,LTD.					
FARMLAND INDUSTRIES,INC.	SCHULTE,JOHN L.		64 72		71 72
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		71 73
TERRA-MARMARA,INC.					
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		73 PR
FARMLAND INDUSTRIES,INC.	CHELF,ROY		66 PR		73 PR
TEX-EX CORP.					
FOREST OIL CORP.	CASEY,MARTIN F.	CHAIR.OF EXEC.COMM. VICE PRESIDENT	64 PR		64 67
TEXACO CANADA LTD.					
TEXACO,INC.	MINGAY,JOHN I.		71 72	PRESIDENT CHIEF EXEC.OFFICER	71 PR
TEXAS & PACIFIC RY.					
EL PASO NATURAL GAS CO	YOUNG,SAM D.		63 PR		
TEXAS A & M UNIVERSITY					
TENNECO INC.	RUDDER,EARL		64 70	PRESIDENT	70
TEXAS AEROSPACE CORP.					
LONE STAR GAS CO.	JONES,MORGAN JR.		60 PR		
TEXAS BUR. FOR ECON. UNDERSTANDING					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
TEXAS COMMERCE BANCSHARES INC.					
EXXON CORP.	BARROW,THOMAS D.		72 PR		74 74
TEXAS COMMERCE BANK					
TENNECO INC.	ALLEN,HERBERT		64 74		PR
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		
CONTINENTAL OIL CO.	CRAM,IRA H.		52 66		57 64
TEXAS COMMERCE BANK,N.A.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		
TEXAS COMMERCE OF HOUSTON					
EL PASO NATURAL GAS CO	NOEL,W.D.				73 PR
TEXAS COMMERCE OF LUBBOCK					
EL PASO NATURAL GAS CO	NOEL,W.D.				61 PR
TEXAS COMMERCIAL INDUSTRIES					
APCO OIL CORP.	MCCOLLUM,L.FRANKLIN,JR.		72 PR		67 PR
TEXAS EASTERN SCHOOL OF NURSING					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		51 PR
TEXAS EASTERN TRANS. CORP.					
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		47 PR
TEXAS EMPLOYERS INS. ASSOC.					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
TEXAS GAS CORP.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		59 64
TEXAS GAS PIPELINE CORP.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		59 64
TEXAS GULF SULPHUR CO.					
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				
TEXAS INDEP. ROYALTY ASSOC.					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		68 PR
TEXAS METHODIST FOUNDATION					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
TEXAS MID-CONTINENT OIL & GAS ASSOC.					
TESORO PETROLEUM CORP.	WEST,ROBERT V. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		68 70
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 69
TEXAS OUTWARD BOUND SCHOOL					
FOREST OIL CORP.	DORN,DAVID F.	EXEC.VICE PRESIDENT ASSISTANT SECRETARY	64 PR		71 73
TEXAS PACIFIC OIL CO.					
CONTINENTAL OIL CO.	HINSON,HOWARD H.	VICE PRESIDENT	58 66	PRESIDENT	72 PR
TEXAS RESEARCH FDN.					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TEXAS RESEARCH LEAGUE					
LONE STAR GAS CO.	POTTER,L.T.	FMR CHAIR.OF BOARD	54 72		
LONE STAR GAS CO.	MCCORD,W.C.	PRESIDENT	70 PR		
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			68 75
TEXAS SCOT.RITE HOSP.FOR CRIP.CHILD.					
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR	TRUSTEE	
TEXAS STADIUM CORP.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
TEXOMA PIPELINE CO.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		74 PR
LION OIL CO.	BROWN,T.P.				73 PR
LION OIL CO.	BIERBAUM,J.A.				73 PR
TEXTRON,INC.					
UNION TEXAS PETROLEUM	MILLER,G.WILLIAM		73 PR	PRESIDENT CHIEF EXEC.OFFICER	
THACHER,PROFFITT,WOOD					
GEN AMER. OIL CO. OF TEXAS	LEWIS,CHARLES W.		PR	ATTORNEY PARTNER	
THERMAL ENERGY SYSTEMS,INC.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		69 PR
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		69 PR
EL PASO NATURAL GAS CO	GERBER,WAYNE S.	ASSISTANT SECRETARY			69 PR
THERMO TECK INC.					
EL PASO NATURAL GAS CO	MOORE,C.L.			SECRETARY TREASURER	
THIKOL CORP.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		61 PR
THIRD NATL BANK,ASHLAND,KY.					
ASHLAND OIL, INC.	TALBUTT,PALMER		51 71		
THOMAS & MCKINNON					
TEXAS OIL & GAS CO.	BOYCE,RAYMOND		56 70	VICE PRESIDENT	
THOMAS JEFFERSON LIFE INS. CO.					
AMERADA HESS CORP.	ORESMAN,ROGER B.		69		
THOMPSON,KNIGHT,SIMMONS & BULLION					
HUSKY OIL LIMITED	BULLION,J. WADDY		64 PR	ATTORNEY PARTNER	
GEN AMER. OIL CO. OF TEXAS	SIMPSON,GORDON		PR	GENERAL COUNSEL	
THORNTON OIL CORP.					
ASHLAND OIL, INC.	THORNTON,JAMES H.		70 70	PRESIDENT	
THREE RIVERS ARTS FESTIVAL					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
THYSSEN-BORNEMISZA GROUP NV					
CONTINENTAL OIL CO.	ROBINSON,JAMES E.		71 PR		73 PR
TIAA/CREF					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		70 PR
TIDEWATER MARINE SERVICE,INC.					
EXCHANGE OIL AND GAS CORP.	BRICKER,JOHN F.	CHAIR.OF BOARD			64 PR
TIDEWATER OIL COMPANY					
GETTY OIL COMPANY	TOMFOHRDE,HEINN F. JR.	VICE PRESIDENT	67 71	VICE PRESIDENT MANAGING DIRECTOR	66 67
GETTY OIL COMPANY	THOMAS,JOSEPH A.		67 PR		55 67
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		52 67
GETTY OIL COMPANY	PETERSEN,SIDNEY R.	VICE PRESIDENT	73 PR	CONTROLLER	69 73
GETTY OIL COMPANY	MILLER,ERNEST B. JR.	EXEC.VICE PRESIDENT CHIEF OPER.OFFICER	73 PR	FMR VICE PRESIDENT	65 67
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		62 67
GETTY OIL COMPANY	KELLIHER,THOMAS G.	FMR VICE PRESIDENT MANAGING DIRECTOR	67 70		67 67
GETTY OIL COMPANY	GETTY,E.PAUL	CHAIR.OF EXEC.COMM.	65 67	FMR PRESIDENT	58 67
TIFFANY & CO.					
GULF OIL CORPORATION	WYCKOFF,GEORGE W.		64 68		66 PR
CITIES SERVICE CO.	FARRELL,JAMES P.		66 PR		
TIME,INC.					
STANDARD OIL CO.OF CALIF.	PETERSON,R.A.		70 PR		
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
CONTINENTAL OIL CO.	PACE,FRANK,JR.				60
CHAMPLIN PETROLEUM CO.	GATES,A.L.				
TIMKEN CO.					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR	CHAIR.OF BOARD	36 PR
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR	VICE-CHAIR.OF BOARD	65 PR
TIMKEN COMMUNICATIONS CO.					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		68 PR
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR		68 PR
TIMKEN DE MEXICO S.A. DE C.V.					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		53 PR
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR		68 PR
TIMKEN LTD.					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		60 PR
TIMKEN ROLLER BEARING SERVICE&SALEE					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		42 PR
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR		68 PR
TIMKEN STEEL & TUBE CO.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		42 PR
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR		68 PR
TIMKEN,FRANCE					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. SR.		40 PR		66 73
TICGA REALTY CO.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
TOLEDO TRUST CO.					
MARATHON OIL COMPANY	WINGERTER,ROBERT G.		74 PR		
MARATHON OIL COMPANY	DONNELL,JOHN R.	SR.VICE PRESIDENT	54 73		
TOLEDO-LUCAS COUNTY PORT AUTHORITY					
CONTINENTAL OIL CO.	NORSTAD,LAURIS				70 73
TOLEDO,PEORIA & WESTERN RAILROAD					
EXXON CORP.	FRANKLIN,WILLIAM H.		69 PR		69 73
TOLTEN CORP.					
CITIES SERVICE CO.	BROWN,WALTER L.		41 72	VICE PRESIDENT	
TORONTO DOMINION BANK					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR	VICE PRESIDENT	67 PR
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		55 PR
TORREY LAKE RANCH,INC.					
CHAMPLIN PETROLEUM CO.	MILLER,M.F.				
TORSION BALANCE CO.					
CHAMPLIN PETROLEUM CO.	HARRIMAN,E.R.				
CHAMPLIN PETROLEUM CO.	GERRY,E.T.				
TOSCO INTNL CORP.					
LION OIL CO.	BROWN,T.P.			PRESIDENT	
TOTAL OPERATIONS FOR NBRHD ENVIRON.					
AMERADA HESS CORP.	CALLENDER,J.D.	EXEC.VICE PRESIDENT TREASURER	72		
TRADERS NL BK,KANSAS CITY,MO.					
PHILLIPS PETROLEUM CO.	WESCOE,W.CLARKE,DR.		64 PR		64 69
TRAILMOBILE FINANCE CO.					
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		55 71
TRAILMOBILE,INC.					
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		51 71
TRANE CO.					
TENNECO INC.	HANCOCK,THOMAS		72 74	CHAIR.OF BOARD	PR
TRANS WORLD AIRLINES,INC.					
MONSANTO COMPANY	SOMMER,CHARLES H.	CHAIR.OF BOARD	59 PR		
LOUISIANA LAND & EXPLOR.	BROWN,GEORGE R.		67 PR		61 68

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TRANS-ARABIAN PIPELINE CO.					
EXXON CORP.	PIERCY,GEORGE T.		66 PR		67 72
EXXON CORP.	PAGE,HOWARD W.		54 70		64 66
TRANS-CENTRAL PIPELINES LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
TRANSAM.FIN.CORP.OF CAN.LTD.&REL.COS					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		54 PR
TRANSAMERICA CORP.					
KERR-MCGEE CORP.	JORGENSEN,EARLE M.		67 PR		65 71
TRANSAMERICA'S MUTUAL FUNDS					
GETTY OIL COMPANY	TOPPING,DR. NORMAN		70 PR		
TRANSAMMONIA,INC.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		66 71
TRANSAMMONIA CORP.					
APCO OIL CORP.	MCDOWELL,W.E.	VICE PRESIDENT	72 PR		73 74
TRANSCANADA PIPELINES LTD.					
KERR-MCGEE CORP.	KENNEDY,EDWIN L.		65 PR		65 71
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		61 PR
GULF OIL CORPORATION	LOUGHNEY,E.D.		64 70		54 72
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		68 PR
TRANSOCEAN DRILLING CO.(CURACO)N.V.					
KERR-MCGEE CORP.	PARKS,GEORGE B.	EXEC.VICE PRESIDENT	72 PR		73 PR
TRANSOCEAN DRILLING CO.,LTD.					
KERR-MCGEE CORP.	SEALE,A.T.F.	FMR VICE PRESIDENT	65 PR		65 73
KERR-MCGEE CORP.	PARKS,GEORGE B.	EXEC.VICE PRESIDENT	72 PR		65 PR
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		65 73
TRANSOCEAN PETROLEUM INC.					
MURPHY OIL CO.	O'NEILL,JAMES A. JR.		66 67	PRESIDENT	
TRANSOK PIPELINE CO.					
EXCHANGE OIL AND GAS CORP.	WILLETS,MYRON H.	PRESIDENT		PRESIDENT	
TRANSPORTATION ASSOC. OF AMERICA					
TEXACO,INC.	GRAHAM,DONALD M.		70 74		62 74
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74	PRESIDENT	71 PR
MOBIL OIL CORPORATION	SCHMIDT,HERMAN J.	VICE-CHAIR.OF BOARD EXEC.VICE PRESIDENT	57 PR		PR
MOBIL OIL CORPORATION	NICKERSON,ALBERT L.	FMR CHAIR.OF BOARD CHIEF EXEC.OFFICER	46 PR		
MOBIL OIL CORPORATION	BAKER,GEORGE P.		64 70	CHAIR.OF BOARD	
TRANSPORTATION INS. CO.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		44 70
TRANSSHORE DRILLING CO.(CURACO)N.V.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
KERR-MCGEE CORP.	PARKS,GEORGE B.	EXEC.VICE PRESIDENT	72 PR		73 PR
TRANSSHORE DRILLING CO.,LTD.					
KERR-MCGEE CORP.	SEALE,A.T.F.	FMR VICE PRESIDENT	65 PR		69 73
KERR-MCGEE CORP.	PARKS,GEORGE B.	EXEC.VICE PRESIDENT	72 PR		69 PR
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		69 73
TRAVEL & TRANSPORT,INC.					
CHAMPLIN PETROLEUM CO.	MILLER,M.F.				
TRAVEL HOUSE INC.					
STD OIL CO. OF INDIANA	TURNER,J. HOWELL		59 65	PRESIDENT	
TREBOL DRILLING CO.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				66 68
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				66 72
EL PASO NATURAL GAS CO	RODMAN,E.G.				66 73
EL PASO NATURAL GAS CO	OWENS,JESSE L.				69 PR
EL PASO NATURAL GAS CO	OWENS,JACK B.				74 PR
EL PASO NATURAL GAS CO	NOEL,W.D.				66 PR
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				66 PR
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		72 PR
EL PASO NATURAL GAS CO	ATCHESON,M.M.	VICE PRESIDENT	68 70		66 72
EL PASO NATURAL GAS CO	ALLEN,ROY W. JR.		68 PR		72 PR
TREBOL OIL CO.					
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		70 PR
TRI CONTINENTAL CORP.					
UNION TEXAS PETROLEUM	BEEBE,FREDERICK S.		62 73		
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
CONTINENTAL OIL CO.	TARKINGTON,A.W.	CONSULTANT			68 PR
TRI CONTINENTAL CORP.LTD(AUSTRALIA)					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
TRI-CITY DRILLING LTD.					
DELHI INTERNATIONAL OIL CORP	MILNER,STANLEY A.		70 PR		
TRIARCH CORP. LTD.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		63 66
TRIDAIR INDUSTRIES					
SHELL OIL COMPANY	STERLING,J.E.WALLACE		68 PR		
TRIDENT OCEAN SERVICES					
TESORO PETROLEUM CORP.	ARPS,JOHN J.				74
TRINITY RIVER AUTHORITY					
LONE STAR GAS CO.	PITTS,ROY E.	CHAIR.OF BOARD	70 PR		
TRINITY SCHOOL					
TEXACO,INC.	MCGILL,WILLIAM J.		73 PR		72 PR
TROY POST FDN.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MURPHY OIL CO.	HUGHES,VESTER T. JR.		73 PR		
TRUNKLINE GAS CO.					
CITIES SERVICE CO.	MACNAUGHTON,LEWIS W.		61 69		
TRUST CO.OF GEORGIA					
CONTINENTAL OIL CO.	AUSTIN,J.PAUL		65		67
TRW INC.					
STANDARD OIL CO. OF OHIO	SHEPARD,HORACE A.		65 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	
DIAMOND SHAMROCK OIL & GAS	SHERWIN,JOHN		69 73		
DIAMOND SHAMROCK OIL & GAS	SHEPARD,HORACE A.		67 PR	CHIEF EXEC.OFFICER CHAIR.OF BOARD	
DIAMOND SHAMROCK OIL & GAS	REAVIS,JOHN W.		64 72		
TSAI MANAGEMT & RESEARCH CORP.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		68 70
TUF-FLEX GLASS INC.					
MARATHON OIL COMPANY	WINGERTER,ROBERT G.		74 PR		
TULANE MURPHY FDN.					
MURPHY OIL CO.	MURPHY,C.H. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	50 PR		70 PR
MURPHY OIL CO.	DEMING,JOHN W.		50 PR		
TULANE UNIV.					
MURPHY OIL CO.	MURPHY,C.H. JR.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	50 PR		70 PR
TULANE UNIV. BD. OF VISITORS					
STD OIL CO. OF INDIANA	KIMPTON,LAWRENCE A.		58 71		61 PR
MURPHY OIL CO.	DEMING,JOHN W.		50 PR		
TULSA METRO. CH. OF COMMERCE					
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR		70 72
CITIES SERVICE CO.	HESTON,J.EDGAR	PRESIDENT	61 71		
TULSA PORT OF CATOOSA					
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR		70 73
TURNBULL ISLAND,INC.					
EXCHANGE OIL AND GAS CORP.	PHILLIPS,NATHANIEL P.				69 PR
TUSKEGEE INSTITUTE					
UNION TEXAS PETROLEUM	CONNOR,JOHN T.	FMR PRESIDENT CHAIR.OF BOARD	67 PR	TRUSTEE	
TV STATION WOED					
EL PASO NATURAL GAS CO	ROCKWELL,WILLARD F. JR.		6 PR		
TYLER JR. COLLEGE,TYLER,TEXAS					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		48 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
U.E.T. CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			68 72
U.S. ARMS CONTROL & DISARM. AGENCY EXXON CORP.	LONG, FRANKLIN A. DR.		69 PR		70 70
U.S. BORAX & CHEMICAL CORP. EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR		
U.S. BUREAU OF MINES FELMONT OIL CORP.	BOYD,JAMES		68 72		
U.S. CHURCHILL FNDTN.,BOARD MOBIL OIL CORPORATION	MORTIMER,CHARLES G.		62 70	TRUSTEE	
U.S. DEPT. OF TRANSPORTATION UNION OIL CO. OF CALIF.	BRINEGAR,CLAUDE S.		68 73	SECRETARY	73 PR
U.S. FIDELITY AND GUARANTY CO. STD OIL CO. OF INDIANA	BLAUSTEIN,JACOB		54 70		35 70
U.S. FINANCIAL GULF OIL CORPORATION	SINGER,EDWIN		71 PR		70 72
U.S. GYPSUM CO. TEXACO,INC.	GRAHAM,DONALD M.		70 74		69 PR
U.S. INDUS. PAYROLL SAVINGS COMM. EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		72 72
U.S. KOREA ECONOMIC COUNCIL PHILLIPS PETROLEUM CO. GULF OIL CORPORATION	SPENCER,WILLIAM I. DORSEY,B.R.		71 74 64 PR	 CHAIR.OF BOARD	73 PR 73 PR
U.S. MEXICO CH. OF COMMERCE TEXACO,INC.	MCCALL,HOWARD W.		71 PR		74 PR
U.S. NAVAL ACADEMY FDN. TEXACO,INC. PENNZOIL CO.	LONG,AUGUSTUS C. LIEDTKE,J. HUGH	CHAIR.OF EXEC.COMM. CHAIR.OF BOARD CHIEF EXEC.OFFICER	50 PR 68 PR	 TRUSTEE	66 70 68 PR
U.S. OLYMPIC COMMITTEE CONTINENTAL OIL CO.	BUEK,CHARLES				73 PR
U.S. POSTAL SERVICE EXXON CORP.	WRIGHT,MYRON A.		58 66		73 74
U.S. STEEL CORP. STANDARD OIL CO.OF CALIF. CITIES SERVICE CO. CHAMPLIN PETROLEUM CO.	PACKARD,DAVID ROMNES,H.I. MOORE,G.S.		67 73		
U.S. TRUST CO. CONTINENTAL OIL CO.	JONES,GILBERT E.			TRUSTEE	65 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR		
U.S. TRUST CO. OF NY					
HAMILTON BROTHERS,INC.	HAMILTON,FREDERIC C.	CHAIR.OF BOARD	69 PR		72 PR
CONTINENTAL OIL CO.	BUEK,CHARLES			CHAIR.OF BOARD	59 PR
U.S. TRUST INVESTMENT FUND ADVIS.BD.					
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		66 74
U.S.COUNCIL OF THE INT.CHAM.OF COMM.					
MOBIL OIL CORPORATION	KLAERNER,CURTIS M.	EXEC.VICE PRESIDENT PRESIDENT	72 PR	TRUSTEE	
U.S.SENATE					
PANHANDLE ESTRN PIPE LN.CO	BENTSEN,LLOYD M.		68 70	SENATOR	
UAL,INC.					
CONTINENTAL OIL CO.	NORSTAD,LAURIS				69 PR
UCLA FDN.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		73 PR
UCLA,GRADUATE SCHOOL OF MANAGEMENT					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR	DEAN	
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR	CHAIR.OF BOARD	
UCLA,VISITING COMMITTEE					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		37 PR
ULTRA ELECTRONICS LTD.					
OCCIDENTAL PETROLEUM CORP.	JACOBY,NEIL H.		59 PR		62 64
UNION BANCORP., INC.					
UNION OIL CO. OF CALIF.	HARTLEY,FRED L.	CHAIR.OF BOARD PRESIDENT	60 PR		67 PR
UNION BANK					
UNION OIL CO. OF CALIF.	HARTLEY,FRED L.	CHAIR.OF BOARD PRESIDENT	60 PR		66 PR
CONTINENTAL OIL CO.	ANDERSON,CHARLES A.				71 72
UNION CAMP CORP.					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		66 PR
UNION CARBIDE CORP.					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		70 PR
CONTINENTAL OIL CO.	LOVE,GEORGE H.		66 71		52 73
COMMONWEALTH OIL REFINING	RAGLAND,TOM R. JR.		68 PR		
UNION CENTRAL LIFE INS. CO.					
STD OIL CO. OF INDIANA	JOHNSTON,LOGAN T.		63 71		63 PR
UNION COLLEGE					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
PHILLIPS PETROLEUM CO.	FORTENBAUGH,SAMUEL B.JR.		64 68		64 68
UNION COMMERCE BANK					
STANDARD OIL CO. OF OHIO	SAUER,RICHARD C.	FMR VICE PRESIDENT	58 69		
UNION DRAWN STEEL CO.,LTD.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
UNION ELECTRIC CO.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
UNION NL BK,BARTLESVILLE,OKLA.					
PHILLIPS PETROLEUM CO.	JOHNSTONE,L.H.	EXEC.VICE PRESIDENT	74 PR		74 PR
UNION OIL CO. OF CANADA LTD.					
UNION OIL CO. OF CALIF.	PARKER,CHARLES F.	SR.VICE PRESIDENT	63 PR		65 PR
UNION OIL CO. OF CALIF.	HARTLEY,FRED L.	CHAIR.OF BOARD PRESIDENT	60 PR		64 PR
UNION OIL CO. OF CALIF.	BURKE,RAY A.	SR.VICE PRESIDENT	66 PR		62 PR
UNION PACIFIC CORP.					
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
CHAMPLIN PETROLEUM CO.	SUTTON,R.M.			FMR VICE PRESIDENT	
CHAMPLIN PETROLEUM CO.	KENEFICK,J.C.			PRESIDENT	
CHAMPLIN PETROLEUM CO.	EVANS,J.H.			PRESIDENT	
CHAMPLIN PETROLEUM CO.	BARNETT,F.E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
CHAMPLIN PETROLEUM CO.	BAILEY,E.H.			FMR PRESIDENT	
UNION PACIFIC R.R. CO.					
MARATHON OIL COMPANY	PLACE,JOHN B.M.		70 72		
UNION TEXAS PETROLEUM					
APCO OIL CORP.	MARSHALL,HOWARD J.		61 65		
UNION THEOLOGICAL SEMINARY					
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		64 70
UNION TRUST CO. OF MARYLAND					
STD OIL CO. OF INDIANA	BLAUSTEIN,JACOB		54 70		30 70
CROWN CENTRAL PETROL CORP	WEYER,JOHN E.		65 71		
CROWN CENTRAL PETROL CORP	PECK,J.STEVENSON		74 PR	CHAIR.OF BOARD	
CROWN CENTRAL PETROL CORP	HOFF,CHARLES W.		54 65		
CROWN CENTRAL PETROL CORP	BROWNE,JOSEPH B.		71 74		
UNIROYAL,INC.					
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
UNITED AIR LINES					
CONTINENTAL OIL CO.	NORSTAD,LAURIS				64 PR
UNITED AIRCRAFT CORP.					
SHELL OIL COMPANY	GWINN,W.P.		66 PR		
PHILLIPS PETROLEUM CO.	SPENCER,WILLIAM I.		71 74		71 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
UNITED APPEAL OF GREATER OKLA. CITY					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR		67 74
KERR-MCGEE CORP.	LOVE,F.C.		65 PR	TRUSTEE	69 PR
UNITED CALIF. BANK					
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR		63 PR
STANDARD OIL CO.OF CALIF.	MCCONE,JOHN A.				
UNITED CALIF. BANK INTNL.					
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR	FMR CHAIR.OF BOARD	
UNITED COLLEGE OF HONG KONG					
MOBIL OIL CORPORATION	KIRK,DR.GRAYSON L.		50 73		
UNITED FDN.,DETROIT					
STD OIL CO. OF INDIANA	BUGAS,JOHN S.		63 PR		49 PR
UNITED FUND OF GREATER NEW YORK					
STD OIL CO. OF INDIANA	PATTERSON,HERBERT P.		70 72		70 74
LOUISIANA LAND & EXPLOR.	BROWN,R. MANNING JR.		62 PR		68 PR
EXXON CORP.	JAMIESON,J. KENNETH		64 PR		69 72
UNITED FUND OF GREATER ST.LOUIS					
MONSANTO COMPANY	QUEENN,EDGAR M.	CHAIR.OF BOARD	19 68		
UNITED FUND OF STARK COUNTY					
LOUISIANA LAND & EXPLOR.	TIMKEN,W.R. JR.		72 PR		65 72
UNITED FUND, HOUSTON					
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR	TRUSTEE	70 70
CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			70 71
UNITED GAS CORP.					
PENNZOIL CO.	PARKES,ED		68 72		55 68
PENNZOIL CO.	MCDOWELL,T.L.		68 70		66 68
PENNZOIL CO.	LIEDTKE,WILLIAM C, JR.	PRESIDENT	68 PR		66 68
PENNZOIL CO.	LIEDTKE,J. HUGH	CHAIR.OF BOARD CHIEF EXEC.OFFICER	68 PR		66 68
PENNZOIL CO.	KERR,BAINE P.	GENERAL COUNSEL CHAIR.OF EXEC.COMM.	68 PR		66 68
PENNZOIL CO.	JOHNSON,LELAND F.		68 PR		66 68
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		64 68
PENNZOIL CO.	GAMMELL,JAMES G.S.		68 PR		68 68
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		58 68
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		66 68
PENNZOIL CO.	COLEMAN,GEORGE L.		68 PR		66 68
PENNZOIL CO.	BROWN,W.L. LYONS		68 72		66 68
PENNZOIL CO.	BOVAIRD,DAVIS D.		68 68		66 68
UNITED GAS PIPELINE CO.					
PENNZOIL CO.	PARKES,ED		68 72		46 67
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		65 74

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
UNITED GUAR.LIFE INS.CO.(NOW SILCO)					
GEN AMER. OIL CO. OF TEXAS	MAYER,FREDERICK M.		PR		66 69
UNITED MISSOURI BANCSHARES					
CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
UNITED MISSOURI BANK					
CHAMPLIN PETROLEUM CO.	GRANT,W.D.				
UNITED MUN. INCINERATOR CORP.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		69 69
UNITED NATIONS ASSN.					
TEXACO,INC.	ROOSA,ROBERT V.		69 PR		71 PR
CONTINENTAL OIL CO.	HEWITT,WILLIAM A.				70 73
UNITED NATIONS ASSN.OF LOS ANGELES					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		69 PR
UNITED NATIONS ASSN.OF U.S.A.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		70 PR
UNITED NATL CORP.					
TESORO PETROLEUM CORP.	WOHLSTETTER,CHARLES				72
UNITED OFFSHORE CO.					
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		68 73
UNITED REPUBLICAN FUND,BD OF GOV.					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		72 PR
UNITED SERVICES LIFE INS. CO.					
TEXACO,INC.	BURKE,ARLEIGH A.,ADMIRAL		61 74		72 PR
UNITED TEXAS TRANSMISSION CO.					
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		69 74
UNITED WAY					
GETTY OIL COMPANY	LUNDBORG,LOUIS B.	PROFESSOR CHAIR.OF BOARD	68 71	FMR PRESIDENT	
UNITED WAY OF ALLEGHENY COUNTY					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		74 PR
UNITED WAY OF AMERICA					
EXXON CORP.	MCNAUGHTON,DONALD S.		70 PR		73 73
EXXON CORP.	GARVIN,CLIFFORD C. JR.				73 74
EXXON CORP.	BRISCO,MILO M.		66 72		71 72
UNITED WAY OF GRTR INDIANAPOLIS,INC					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		73 PR
UNIV. HOSPITALS,CASE WEST.RES.UNIV.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
UNIV. OF IOWA FOUNDATION					
MOBIL OIL CORPORATION	SCHMIDT,HERMAN J.	VICE-CHAIR.OF BOARD EXEC.VICE PRESIDENT	57 PR		PR
UNIV.OF CHICAGO					
UNION TEXAS PETROLEUM	GRAHAM,KATHARINE		73 PR	TRUSTEE	
STD OIL CO. OF INDIANA	WRIGHT,JOSEPH S.		66 PR	TRUSTEE	72 PR
STD OIL CO. OF INDIANA	RASMUSSEN,ARTHUR E.		71 PR	TRUSTEE	72 PR
STD OIL CO. OF INDIANA	OSMENT,FRANK C.	EXEC.VICE PRESIDENT	68 PR		73 PR
STD OIL CO. OF INDIANA	GUNNESS,ROBERT C.	VICE-CHAIR.OF BOARD	53 PR	TRUSTEE	58 PR
UNIV.OF KY. DEVELOPMENT COUNCIL					
ASHLAND OIL, INC.	HILLENMEYER,WALTER W.JR.		74 PR		
UNIV.OF MIAMI					
EXXON CORP.	BRISCO,MILO M.		66 72		67 72
UNIV.OF MICHIGAN DEVELOPNT COUNCIL					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
UNIV.OF MICHIGAN LAW SCH.COMM.OF VIS					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
UNIV.OF NORTH AFRICA ASSOC.					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR	TRUSTEE	68 71
UNIV.OF OKLAHOMA					
EXXON CORP.	WRIGHT,MYRON A.		58 66		64 65
UNIV.OF OKLAHOMA BD.OF REGENTS					
PHILLIPS PETROLEUM CO.	HOUCHIN,JOHN M.	FMR CHAIR.OF BOARD	64 PR		63 70
UNIV.OF PENNSYLVANIA					
GETTY OIL COMPANY	TOPPING,DR. NORMAN		70 PR	FMR VICE PRESIDENT	
UNIV.OF PITT. CHARTER TRUSTEE					
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		68 PR
UNIV.OF PITT. TERM TRUSTEE					
GULF OIL CORPORATION	DORSEY,B.R.		64 PR	TRUSTEE	67 68
UNIV.OF PITTSBURG-BRADFORD,ADV. BD.					
FOREST OIL CORP.	CLEMENS,EDWIN	VICE PRESIDENT TREASURER	66 PR		73 PR
UNIV.OF PITTSBURGH					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR	TRUSTEE	73 PR
GULF OIL CORPORATION	DENTON,FRANK R.		59 71	TRUSTEE	59 69
UNIV.OF RICHMOND					
OCCIDENTAL PETROLEUM CORP.	GATED,A.P.		73 PR	TRUSTEE	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
UNIV.OF SOUTHERN CALIFORNIA					
GETTY OIL COMPANY	TOPPING,DR. NORMAN		70 PR	CHANCELLOR FMR PRESIDENT	58 PR
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR	TRUSTEE	
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		
UNIV.OF TEX., AUSTIN DEVELOPMENT BD					
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		73 PR
UNIV.OF TEXAS FOUNDATION,INC.					
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		69 72
APCO OIL CORP.	WOODFIN,GENE M.		60 PR	VICE PRESIDENT PRESIDENT	66 PR
UNIV.OF TEXAS LAW SCHOOL FOUNDATION					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR	TRUSTEE	59 64
UNIV.OF TEXAS,DALLAS					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 65
UNIV.OF TEXAS,GEOL.FDN.ADVIS.COUNCIL					
GULF OIL CORPORATION	DAVIS,I.G.		64 73		62 73
UNIV.OF THE SOUTH					
MURPHY OIL CO.	KELLER,CHRISTOPH JR.		48 PR	TRUSTEE	
UNIV.OF TORONTO					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		46 72
CONTINENTAL OIL CO.	MCKINNON,NEIL J.		65 PR		58 69
UNIV.OF TULSA					
STD OIL CO. OF INDIANA	YOST,F. RANDOLPH	SR.VICE PRESIDENT	65 PR	TRUSTEE	63 PR
STD OIL CO. OF INDIANA	GALLOWAY,GEORGE H.		74 PR	TRUSTEE	70 PR
PENNZOIL CO.	BOVAIRD,DAVIS D.		68 68		64 71
CITIES SERVICE CO.	CRENSHAW,KIRBY E.	PRESIDENT	58 72		
UNIV.OF VA.GRAD.BUS.SCHL.SPONSORS					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		66 PR
UNIV.OF VIRGINIA ALUMNI ENDOWMENT					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		63 74
UNIV.OF VIRGINIA LAW SCHOOL FDN.					
CITIES SERVICE CO.	BROWN,WALTER L.		41 72		
UNIV.OF VIRGINIA,BD. OF VISITORS					
TEXACO,INC.	MCCALL,HOWARD W.		71 PR		74 PR
UNIV-SEMINAR DER WIRTSCHAFT					
EXXON CORP.	WOLFF VON AMERONGEN,OTTO		71 PR		72 74
UNIVAS-FRANCE					
TEXACO,INC.	GRANARD,THE EARL OF		72 PR		69 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
UNIVERSAL MATCH CORP.					
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
UNIVERSAL OIL PRODUCTS CORP.					
PENNZOIL CO.	COLEMAN,J.D. STETSON	CHAIR.OF FIN.COMM.	68 PR		60 66
UNIVERSAL SEC. LIFE INS.CO.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				68 PR
EL PASO NATURAL GAS CO	WARNOCK,HAL C.				68 68
EL PASO NATURAL GAS CO	THOMPSON,B.G. SR.				68 68
EL PASO NATURAL GAS CO	THOMPSON,B.G. JR				68 68
EL PASO NATURAL GAS CO	SMITH,G.B.				68 PR
EL PASO NATURAL GAS CO	RIPLEY,KATHERINE E.				68 68
EL PASO NATURAL GAS CO	RIPLEY,BILLIE J.				68 68
EL PASO NATURAL GAS CO	RIPLEY,BEN				68 68
EL PASO NATURAL GAS CO	PRIDEAUX,PEARL				68 68
EL PASO NATURAL GAS CO	KUSALICK,L.N.				68 68
EL PASO NATURAL GAS CO	KNIPMEYER,DR.J.WARNER				68 68
EL PASO NATURAL GAS CO	KEMPER,LEON W.				68 68
EL PASO NATURAL GAS CO	IRVINE WILLIAM				6 6
EL PASO NATURAL GAS CO	IMBER,J.R.				68 PR
EL PASO NATURAL GAS CO	ELLIOTT,JACK S.				68 PR
EL PASO NATURAL GAS CO	AZBELL,JOE				68 68
EL PASO NATURAL GAS CO	AMES,C.B.				68 PR
UNIVERSITE LIBRE DE BRUXELLES					
UNION TEXAS PETROLEUM	SOLVAY,JACQUES E.		66 PR		
UNIVERSITY BUICK-OPAL CO.,NORMAN,OK.					
KERR-MCGEE CORP.	KERR, BREENE M.		65 PR		73 PR
UNIVERSITY HEIGHTS HOSPITAL					
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		70 72
UNIVERSITY HOSPITALS OF CLEVELAND					
TEXACO,INC.	HUMPHREY,GILBERT W.		58 PR	TRUSTEE	54 PR
URBAN ACTION FDN.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 67
URBAN HOMES,INC.					
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R.		PR	PRESIDENT	69 PR
URBAN STUDIES,INC.					
KERR-MCGEE CORP.	WEBB,JAMES E.	ATTORNEY	69 PR		65 PR
US-USSR TRADE & ECONOMIC COUNCIL					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		73 PR
UTAH INTNL.,INC.					
MOBIL OIL CORPORATION	BORCH,FRED J.		73 PR		
CHAMPLIN PETROLEUM CO.	ECCLES,G.S.				

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
UTAH NATURAL GAS CO.					
EL PASO NATURAL GAS CO	WOODWARD,JOHN A.				65 68
EL PASO NATURAL GAS CO	STRICKLIN,J.M.				65 72
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		65 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		65 72
EL PASO NATURAL GAS CO	OWENS,JESSE L.				69 PR
EL PASO NATURAL GAS CO	OWENS,JACK B.				72 PR
EL PASO NATURAL GAS CO	NOEL,W.D.				65 PR
EL PASO NATURAL GAS CO	MOORE,C.L.				65 66
EL PASO NATURAL GAS CO	MCCLESKEY,JAMES M.				65 PR
EL PASO NATURAL GAS CO	MASON,JOHN B.	SR.VICE PRESIDENT GENERAL COUNSEL	70 PR		72 PR
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		65 72
EL PASO NATURAL GAS CO	COLE,J.W. JR.				66 PR
EL PASO NATURAL GAS CO	CLEMENTS,O.R.				72 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		64 PR
VAIL ASSOCIATES,INC.					
LION OIL CO.	TWEEDY,J.B.				64 PR
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
VAIL CLINIC,INC.					
DELHI INTERNATIONAL OIL CORP	MURCHISON,JOHN D.		64 PR		
VALLERY 80, INC.					
SUN OIL CO.	SCRANTON,WILLIAM W.		73 PR		73 PR
VALLEY BANK&TRUST CO.OF SPRGFLD.MASS					
MONSANTO COMPANY	MUELLER,ROBERT K.	VICE PRESIDENT	61 68		
VALLEY FARMS,INC.					
CITIES SERVICE CO.	SCHRAM,EMIL		51 71	CHAIR.OF BOARD	
VALLEY FORGE INS. CO.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		64 70
VALLEY FORGE LIFE INS. CO.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		64 70
VAN HOUTEN SYNDICATE					
CHAMPLIN PETROLEUM CO.	TAYLOR,V.F. JR.				
VAN SCHAACK & CO.					
HAMILTON BROTHERS,INC.	HAMILTON,FREDERIC C.	CHAIR.OF BOARD	69 PR		72 PR
VANCE IRON & STEEL CO.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
VANDERBILT UNIV.					
MURPHY OIL CO.	OWEN,RALPH		60 PR	TRUSTEE	
VANDYCK CORP.					
FELMONT OIL CORP.	FEICK,WILLIAM JR.		65 PR		69 74
VANSON DEVELOPMENT CORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ASHLAND OIL, INC.	VANDEVEER,JAMES W.		64 PR		
VANSON PRODUCTION CORP.					
ASHLAND OIL, INC.	VANDEVEER,JAMES W.		64 PR	PRESIDENT	
VANTEX ENTERPRISES,INC.					
ASHLAND OIL, INC.	VANDEVEER,JAMES W.		64 PR		
VANTEX INTERIOR DECORATORS					
ASHLAND OIL, INC.	VANDEVEER,JAMES W.		64 PR		
VASSAR COLLEGE					
CONTINENTAL OIL CO.	JONES,GILBERT E.			TRUSTEE	68 PR
AMERADA HESS CORP.	MOSES,WILLIAM B. JR.		68		
VCA CORP.					
ASHLAND OIL, INC.	BUTLER,SAMUEL C.		70 PR		
VENTURE ASSOC.,INC.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		65 72
VERMEJO PARK CORP.					
PENNZOIL CO.	HASLANGER,R.U.	VICE PRESIDENT	68 PR		73 PR
VERMONT GAS SYSTEMS INC.					
SOUTHLAND OIL CO.	GAISSERT,L. JULIAN		68 74	PRESIDENT	
VERSAILLES FDN.,INC.,VERSAILLES COMM					
TEXACO,INC.	PARKER,GEORGE JR.		61 PR		69 PR
VERSI TECHNOLOGIES, INC.					
CLARK OIL & REFINING CORP.	SNYDER,MILO F.		54 PR		69 PR
VGS CORP.					
SOUTHLAND OIL CO.	MCGRATH,ROGER G.		70 70	VICE PRESIDENT	
SOUTHLAND OIL CO.	ELSE,CHARLES W.		68 68	CHAIR.OF BOARD PRESIDENT	
AMERADA HESS CORP.	HEARIN,ROBERT M.		69		
VIATECH,INC.					
CLINTON OIL CO.	HOOKER,R. WOLCOTT		73 PR		71 PR
VICTORIA BANK & TRUST CO.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR		58 71
VIGILANT INSURANCE CO.					
MOBIL OIL CORPORATION	LAPHAM,LEWIS A.		60 PR		
VIKING RESOURCES INTNL.					
TESORO PETROLEUM CORP.	ROTE,JOHN				72
VINCENT ASCOR FOUNDATION					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR	TRUSTEE	
VINSON,ELKINS,SEARLS,CONNALLY&SMITH					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
GENERAL CRUDE OIL CO.	ATTWELL,J.E.			ATTORNEY PARTNER	
VIRGINIA CENTRAL FARM SERV. CORP.					
TEXACO,INC.	WILLIAMS, LANGBOURNE M.	HONORARY CHAIRMAN	58 PR		54 66
VIRGINIA CENTRAL RAILWAY					
TEXACO,INC.	WILLIAMS, LANGBOURNE M.	HONORARY CHAIRMAN	58 PR		35 67
VIRGINIA HIST. SOC.					
TEXACO,INC.	WILLIAMS, LANGBOURNE M.	HONORARY CHAIRMAN	58 PR		67 PR
VIRGINIA HOLDING CORP.					
UNION TEXAS PETROLEUM	FISHWICK,JOHN P.		73 PR		
VISCOSA DE CHIHUAHUA,S.A.					
MARATHON OIL COMPANY	TOWER,RAYMOND C.		74 PR		
VOL.FOR INTNL TECH.ASSIST.,INC.					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
STANDARD OIL CO. OF OHIO	GLENNAN,T.KEITH		58 58		
EXXON CORP.	MILBRATH,ROBERT H.	TRUSTEE	69 73		73 73
W. ALTON JONES FDN.,INC.					
CITIES SERVICE CO.	FARRELL,JAMES P.		66 PR		
W.C.PITFIELD & CO.,MONTREAL					
HUSKY OIL LIMITED	PAYN,PHILIP REGINALD		53 73	PRESIDENT	64
W.H.SMITH & SON (CANADA) LTD.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR	CHAIR.OF BOARD	68 72
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		62 72
W.R. GRACE					
CHAMPLIN PETROLEUM CO.	MOORE,G.S.				
AMERADA HESS CORP.	HAGERTY,HARRY C.		69		
WABASH RAILROAD CO.					
MONSANTO COMPANY	WILLIAMS,FELIX N.	VICE PRESIDENT	47 64		
WAINOCO OIL LTD.					
MESA PETROLEUM COMPANY	PICKENS,T.B. JR.	PRESIDENT CHAIR.OF BOARD	64 74		74
MESA PETROLEUM COMPANY	MADDEN,WALES H. JR.		64 74		74
WAKE UP OIL CO.					
ROCK ISLAND REFINERY CORP.	WINKLER,ELMER L.	PRESIDENT	71 PR		64 PR
ROCK ISLAND REFINERY CORP.	KINCANNON,L.E.	FMR CHAIR.OF BOARD FMR VICE PRESIDENT	64 PR		64 PR
WALTER E. HELLER INTNL CORP.					
STD OIL CO. OF INDIANA	MYERS,GEORGE V.	PRESIDENT	56 PR		73 PR
WANDA PETROLEUM,INC.					
ASHLAND OIL, INC.	MORROW,THOMAS C.		68 69	PRESIDENT	

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
WARNER COMMUNICATIONS,INC.					
UNION TEXAS PETROLEUM	ELLSWORTH,ROBERT		72 PR		
WARNER-LAMBERT CO.					
UNION TEXAS PETROLEUM	GIBLIN,E.BURKE		73 PR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	
WARNER-LAMBERT PHARMACEUTICAL CO.					
CROWN CENTRAL PETROL CORP	MARKOE,FRANK JR.		67 72	SR.VICE PRESIDENT.	
WARREN PROFESSIONAL BUILDING CORP.					
GULF OIL CORPORATION	WARREN,W.K.		64 69	PRESIDENT	64 PR
WARWICK ELECTRONICS,INC.					
MARATHON OIL COMPANY	PLATTS,JOHN H.		73 PR		
WASHINGTON PERFORMING ARTS SOC.					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
WASHINGTON POST CO.					
UNION TEXAS PETROLEUM	GRAHAM,KATHARINE		73 PR	CHAIR.OF BOARD	
UNION TEXAS PETROLEUM	BEEBE,FREDERICK S.		62 73	CHAIR.OF BOARD	
WASHINGTON UNIVERSITY					
PHILLIPS PETROLEUM CO.	CLIFFORD,CLARK M.		69 PR		69 PR
MONSANTO COMPANY	THOMAS,CHARLES ALLEN	CHAIR.OF BOARD	42 68		
MONSANTO COMPANY	CALHOUN,KEVIN R.		63 73		
EXXON CORP.	MORGENS,HOWARD J.		67 69		67 68
WATER DEVELOPMT FDN.OF OKLA.,INC.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			69 PR
WAYNESBURG COLLEGE					
STANDARD OIL CO. OF OHIO	ROSS,JOHN L.	SR.VICE PRESIDENT	70 PR		
WEATHERHEAD CO.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
DIAMOND SHAMROCK OIL & GAS	REAVIS,JOHN W.		64 72		
WEBB SCHOOL OF CALIFORNIA					
GETTY OIL COMPANY	GETTY,E.PAUL	CHAIR.OF EXEC.COMM.	65 67	TRUSTEE	
WEBSTER COLLEGE					
MONSANTO COMPANY	THRODAHL,G.	VICE PRESIDENT	66 PR		
GULF OIL CORPORATION	DEAN,R.HAL		70 PR		67 PR
WELLS COLLEGE,N.Y.					
UNION TEXAS PETROLEUM	BROWN,CHESTER M.	FMR CHAIR.OF BOARD FMR PRESIDENT	59 72	TRUSTEE	
WENONAH DEVELOPMT CO.					
CITIES SERVICE CO.	MICHEL,CLIFFORD W.		63 PR		
WERTHEIM & CO.,INC.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
EXCHANGE OIL AND GAS CORP.	KLINGENSTEIN,FREDERICK A	CHAIR.OF BOARD		CHAIR.OF BOARD PRESIDENT	72 PR
WERTHEIM ADVISERS,INC.					
EXCHANGE OIL AND GAS CORP.	KLINGENSTEIN,FREDERICK A	CHAIR.OF BOARD			72 PR
WERTHEIM ASSET MANAGEMENT SERVICES					
EXCHANGE OIL AND GAS CORP.	KLINGENSTEIN,FREDERICK A	CHAIR.OF BOARD			72 PR
WERTMA NOMINEES,INC.					
EXCHANGE OIL AND GAS CORP.	KLINGENSTEIN,FREDERICK A	CHAIR.OF BOARD			70 PR
WESLEY JESSON CO.					
UNION OIL CO. OF CALIF.	JACOBS,DONALD P.		73 PR		72 PR
WESLEY MEDICAL CENTER					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		59 PR
WEST ALLIS MEM. HOSPITAL,MILWAUKEE					
CLARK OIL & REFINING CORP.	WORMLEY,GEORGE T.	VICE PRESIDENT GENERAL COUNSEL	70 PR		69 PR
WEST LAKE NATURAL GASOLINE CO.					
EL PASO NATURAL GAS CO	WARREN,W.BURNEY	EXEC.VICE PRESIDENT SECRETARY	69 PR		68 PR
EL PASO NATURAL GAS CO	WAGNER,FRED T.		46 71		65 70
EL PASO NATURAL GAS CO	TUCKER,D.H.				64 66
EL PASO NATURAL GAS CO	STEEN,HUGH F.	PRESIDENT	53 PR		64 PR
EL PASO NATURAL GAS CO	PETTY,TRAVIS H.	EXEC.VICE PRESIDENT	71 PR		70 PR
EL PASO NATURAL GAS CO	PERKINS,C.L.	SR.VICE PRESIDENT	45 PR		64 73
EL PASO NATURAL GAS CO	KAYSER,PAUL		28 PR		64 65
EL PASO NATURAL GAS CO	HOWELL,BEN R.		65 69		66 68
EL PASO NATURAL GAS CO	HOLIK,WILLIAM V. JR.	EXEC.VICE PRESIDENT			73 PR
EL PASO NATURAL GAS CO	BOYD,HOWARD	CHAIR.OF BOARD	53 PR		64 PR
WEST OMAHA NATL BK					
CHAMPLIN PETROLEUM CO.	MILLER,M.F.				
WEST PENN HOSPITAL					
GULF OIL CORPORATION	LEE,JAMES E.		73 PR		73 PR
WEST POINT-PEPPERELL					
GENERAL CRUDE OIL CO.	WOODRUFF,C.E.				
WEST TEXAS GATHERING CO.					
EL PASO NATURAL GAS CO	NOEL,W.D.				57 PR
EL PASO NATURAL GAS CO	EDWARDS,W.T.		70 PR		70 PR
WESTERN ALLEGHENY RAILROAD CO.					
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		50 70
WESTERN AMERICAN BANK (EUROPE) LTD.					
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
WESTERN BANCORP.					

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
UNION OIL CO. OF CALIF.	MUDD,HENRY T.		63 PR		59 PR
STANDARD OIL CO.OF CALIF.	MCCONE,JOHN A.				
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR	CONSULTANT FMR CHAIR.OF BOARD	
WESTERN BANCORP. OF LOS ANGELES					
STANDARD OIL CO.OF CALIF.	ALLEN,WILLIAM M.				
WESTERN CONSTRUCTION AND LUMBER CO.					
HUSKY OIL LIMITED	MILLAR,HUGH HERBERT		58 PR	PRESIDENT	PR
WESTERN OIL & GAS ASSN.					
LION OIL CO.	BROWN,T.P.				70 PR
WESTERN PA. HISTORICAL SOCIETY					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
WESTERN PA.SCHOOL FOR BLIND CHILDREN					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
WESTERN PACIFIC RAILROAD CO.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		64 70
WESTERN RESERVE HISTORICAL SOCIETY					
OCCIDENTAL PETROLEUM CORP.	VAIL,HERMAN L.	ATTORNEY	68 PR	TRUSTEE	
WESTERN RESOURCES PIPELINE CO.					
APCO OIL CORP.	WOODFIN,GENE M.		60 PR		68 74
WESTERN TELECASTERS,INC.					
DELHI INTERNATIONAL OIL CORP	BASS,PERRY R.		64 PR		
WESTERN TERMINAL CO					
HUSKY OIL LIMITED	CLACK,WILLIAM TURNER		60 65	PRESIDENT	
WESTERN UNION CORP.					
SHELL OIL COMPANY	BLACK,J.B.		50 65		
WESTGATE SCHOOL					
OCCIDENTAL PETROLEUM CORP.	BAIRD,JOSEPH E.	PRESIDENT CHIEF OPER.OFFICER	73 PR	TRUSTEE	
WESTHOMA OIL CO.					
CHAMPLIN PETROLEUM CO.	TAYLOR,V.F. JR.				
WESTINGHOUSE CANADA LTD.					
GULF OIL CORPORATION	MATTHEWS,BEVERLY		58 PR		64 PR
WESTINGHOUSE ELECTRIC CORP.					
STANDARD OIL CO. OF OHIO	TAYLOR,HOBART JR.		71 PR		
MONSANTO COMPANY	ANDERSON,DILLON		60 74		
GULF OIL CORPORATION	DENTON,FRANK R.		59 71		47 71
GULF OIL CORPORATION	BROCKETT,E.D.		60 PR		62 67
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
EXXON CORP.	STRATTON,JULIUS A.		66 70		66 69

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
DIAMOND SHAMROCK OIL & GAS	REAVIS,JOHN W.		64 72		
CITIES SERVICE CO.	MCGILLICUDDY,JOHN F.		70 PR		
WESTMINISTER PRESBYTERIAN CHURCH					
KERR-MCGEE CORP.	SAUNDERS,J.B.	CONSULTANT	65 PR	TRUSTEE	67 70
WESTMINSTER COLLEGE					
PHILLIPS PETROLEUM CO.	PARKER,PAUL J.	VICE PRESIDENT	64 64	TRUSTEE	64 64
WESTMOUNT LIFE INSURANCE CO.					
UNION TEXAS PETROLEUM	NOTMAN,J.GEOFFREY		58 73		
WEYERHAUSER CORP.					
STANDARD OIL CO.OF CALIF.	MILLER,O.N.				73 PR
WHARTON GRADUATE ALUMNI ADV. BD.					
STD OIL CO. OF INDIANA	WOOD,RICHARD D.		73 PR		73 PR
WHEELING PITTSBURGH STEEL CORP.					
CONTINENTAL OIL CO.	HARDESTY,C. HOWARD JR.	DIVISION PRESIDENT			72 PR
WHIRLPOOL CORP.					
SHELL OIL COMPANY	COOK,C.W.		73 PR		
MARATHON OIL COMPANY	PLATTS,JOHN H.		73 PR	CHAIR.OF BOARD PRESIDENT	
EXXON CORP.	KAPPEL,FREDERICK R.		66 70		68 69
WHITCOM INVESTMENT CO.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR	PARTNER	69 PR
WHITE CLOUD PRODUCTS,INC.					
CLINTON OIL CO.	SMITH,JOHN J.		73 PR		68 PR
WHITE CONSOLIDATED INDUSTRIES,INC.					
GULF OIL CORPORATION	HIGGINS,JAMES H.		70 PR		63 PR
WHITE MOTOR CORP.					
STANDARD OIL CO. OF OHIO	SPAHR,CHARLES E.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	55 PR		64 PR
DIAMOND SHAMROCK OIL & GAS	HUGHES,JAMES A.	CHAIR.OF BOARD	64 PR		
WHITE SHOAL PIPELINE CORP.					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		68 73
WHITE WELD & CO. LTD.					
CHAMPLIN PETROLEUM CO.	MOORE,G.S.				
WHITE WELD & CO.,INC.					
CHAMPLIN PETROLEUM CO.	MOORE,G.S.				
WHITEHALL CLUB					
KERR-MCGEE CORP.	LOVE,F.C.		65 PR		71 PR
WHITING CORP.					
PENNZOIL CO.	EVERETT,BOYD N.		68 PR		52 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
WHITNEY COMMUNICATIONS CORP.					
GULF OIL CORPORATION	SINGER,EDWIN		71 PR		70 PR
WHITNEY NL BK					
LOUISIANA LAND & EXPLOR.	PHILLIPS,JOHN G.	CHAIR.OF BOARD CHIEF EXEC.OFFICER	62 PR		72 PR
WICHITA CRIME COMMISSION					
CLINTON OIL CO.	ENGSTRAND,CLINTON O.		73 PR		59 PR
WICKES,RIDDELL,BLOOMER,JACOBI&MCGUIR					
SHELL OIL COMPANY	MCGUIRE,H.F.		62 PR		
WIGTON-ABBOTT,INC.					
CITIES SERVICE CO.	FARRELL,JAMES P.		66 PR		
WILENTZ,GOLDMAN & SPITZER					
AMERADA HESS CORP.	WILENTZ,DAVID T.		69	ATTORNEY	
WILLIAM A.M. BURDEN & CO.					
UNION TEXAS PETROLEUM	BURDEN,WILLIAM A.M.		62 67	PARTNER	
WILLIAM C. & THEODOSTA M. NOLAN FDN.					
MURPHY OIL CO.	NOLAN,WILLIAM C.		50 PR		61 PR
WILLIAM K.WARREN MED.RES.CEN.INC					
GULF OIL CORPORATION	WARREN,W.K.		64 69	PRESIDENT TRUSTEE	64 PR
WILLIAM MARSH RICE UNIV.,BD OF GOV.					
PENNZOIL CO.	KERR,BAINE P.	GENERAL COUNSEL CHAIR.OF EXEC.COMM.	68 PR		72 PR
WILLIAM WRIGLEY JR. CO.					
TEXACO,INC.	WRIGLEY,WILLIAM		74 PR	PRESIDENT CHIEF EXEC.OFFICER	60 PR
WILLIAMS COS.,TULSA,OKLA.					
GULF OIL CORPORATION	SAVAGE,ROYCE H.		64 69		71 PR
WILLIAMSBURG SAVINGS BANK					
UNION TEXAS PETROLEUM	MINTON,HENRY M.		4 97	TRUSTEE	
CITIES SERVICE CO.	O'BRIEN,HENRY L.	GENERAL COUNSEL	40 71		
WILLOW FUND INC.					
EXCHANGE OIL AND GAS CORP.	KLINGENSTEIN,FREDERICK A	CHAIR.OF BOARD			69 PR
WILMER,CUTLER & PICKERING,ATTORNEYS					
PANHANDLE ESTRN PIPE LN.CO	SMITH,GERARD C.		73 PR	GENERAL COUNSEL	
WILMETTE BANK					
STD OIL CO. OF INDIANA	FARRELL,RICHARD J.	VICE PRESIDENT	63 PR		72 PR
WILMINGTON TRUST CO.					
AMERICAN PETROFINA, INC.	JACKSON,HARRY A.		56 72		55

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
WILSHIRE OIL CO. OF TEXAS					
GEN AMER. OIL CO. OF TEXAS	CONLEY,PAUL A.				56 64
WILSHIRE TERR. CORP.					
EL PASO NATURAL GAS CO	KING,FRANK L.		65 PR		
WISCONSIN ALUMNI RESEARCH FDN.					
CITIES SERVICE CO.	ROMNES,H.I.		67 73		
WISTERIA HOSIERY MILLS,INC.					
PHILLIPS PETROLEUM CO.	FORTENBAUGH,SAMUEL B.JR.		64 68		64 68
WITCO CHEMICAL CORP.					
MOBIL OIL CORPORATION	KEYSER,PAUL V. JR.		55 69		71 PR
APCO OIL CORP.	KEYSER,PAUL V.	CONSULTANT	72 PR		71 PR
WITHERBEE SHERMAN CORP.					
MARATHON OIL COMPANY	BOYER,WILLIS B.		64 74		
WOLF'S HEAD OIL REFINING CO.,INC.					
PENNZOIL CO.	WARREN,T.W.	VICE PRESIDENT	74 PR		69 PR
WOOD,GUNDY & CO. LTD.					
HUSKY OIL LIMITED	MCCAUSLAND,JOHN KELLOG		53 PR	VICE PRESIDENT	70
WOODALL INDUSTRIES INC.					
MARATHON OIL COMPANY	WINGERTER,ROBERT G.		74 PR		
WOODBANK MILLS,INC.					
CHAMPLIN PETROLEUM CO.	MILLIKEN,M.K.	VICE PRESIDENT TREASURER			
WOODBURY CHEMICAL CO.					
FARMLAND INDUSTRIES,INC.	LINDSEY,ERNEST T.	PRESIDENT	67 PR		67 70
WOODROW WILSON INTL.CEN.FOR SCHOLARS					
MOBIL OIL CORPORATION	WARNER,RAWLEIGH JR.	CHAIR.OF BOARD FMR PRESIDENT	64 PR		PR
WORK CREATION BOARD					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		
WORLD AFFAIRS COUNCIL OF LOS ANGELES					
OCCIDENTAL PETROLEUM CORP.	HAMMER,ARMAND	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		69 PR
GETTY OIL COMPANY	TOPPING,DR. NORMAN		70 PR		
GETTY OIL COMPANY	LARKIN,FREDERICK G. JR.		67 PR		
GETTY OIL COMPANY	GETTY,E.PAUL	CHAIR.OF EXEC.COMM.	65 67		
WORLD AFFAIRS COUNCIL OF PITTSBURGH					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
GULF OIL CORPORATION	DORSEY,B.R.		64 PR		71 PR
WORLD HYDROCARBONS,INC.					
CLARK OIL & REFINING CORP.	CRICHTON,JOHN A.		72 PR		73 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
WORLD REHABILITATION FUND,INC.					
MONSANTO COMPANY	QUEENN,EDGAR M.	CHAIR.OF BOARD	19 68		
WORLD SERVICE LIFE INSURANCE CO.					
CHAMPLIN PETROLEUM CO.	BALRIDGE,E.	CHAIR.OF EXEC.COMM.			
WORTHEN BANK & TRUST CO.					
MURPHY OIL CO.	KELLER,CHRISTOPH JR.		48 PR		72 PR
WRIGLEY MEMORIAL GARDEN FDN.					
TEXACO,INC.	WRIGLEY,WILLIAM		74 PR		72 PR
Y.M.C.A. OF OKLA.CITY.					
KERR-MCGEE CORP.	MCGEE,DEAN A.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			65 PR
YALE DEVELOPMENT BOARD					
GETTY OIL COMPANY	SCHIFF, JOHN M.		67 PR		
YALE PRES.ADV.COMM. PAUL MELLON CEN.					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR		PR
YALE UNIV. ART GALLERY ASSOCIATES					
GULF OIL CORPORATION	WALTON,JAMES M.		70 PR	TRUSTEE	PR
YMCA					
GEN AMER. OIL CO. OF TEXAS	VAUGHN,JIM M. M.D.		PR		
CONTINENTAL OIL CO.	BUEK,CHARLES				67 PR
CITIES SERVICE CO.	HESTON,J.EDGAR	PRESIDENT	61 71		
YMCA OF GREATER NEW YORK					
UNION TEXAS PETROLEUM	PERKINS,RICHARD S.		58 PR	TRUSTEE	
YMCA-METROPOLITAN ST.LOUIS					
MONSANTO COMPANY	BOCK,HOWARD J.	PRESIDENT	65 72		
YOSEMITE INSTITUTE					
GETTY OIL COMPANY	MEDBERRY,CHAUNCEY J. III		71 PR		
YOUNGSTOWN SHEET & TUBE CO					
GEN AMER. OIL CO. OF TEXAS	MAYER,FREDERICK M.		PR	FMR VICE PRESIDENT	
YOUNGSTOWN STEEL DOOR CO.					
DIAMOND SHAMROCK OIL & GAS	SHERWIN,JOHN		69 73		
DIAMOND SHAMROCK OIL & GAS	EVANS,RAYMOND F.		64 PR		
ZAPATA CORP.					
TENNECO INC.	MACKIN,B.JOHN		72 74		PR
ZENITH RADIO CORP.					
STD OIL CO. OF INDIANA	WRIGHT,JOSEPH S.		66 PR	CHAIR.OF BOARD	54 PR
ZIONS UTAH BANCORPORATION					
PHILLIPS PETROLEUM CO.	SEARS,ROBERT N.	SR.VICE PRESIDENT	70 PR		70 PR

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
ZOOLOGICAL SOCIETY,HOUSTON CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			71 PR
ZOOLOGICAL SOCIETY,HOUSTON CONTINENTAL OIL CO.	GLENN,WAYNE E.	DIVISION PRESIDENT			71 PR

NONE

UNION OIL CO. OF CALIF.	STEWART,ARTHUR C.		40	PR
UNION OIL CO. OF CALIF.	DOHENY,WILLIAM H.		54	PR
UNION OIL CO. OF CALIF.	BRADLEY,W.E.	CONSULTANT	71	PR
TESORO PETROLEUM CORP.	PHELPS,JAMES C.	PRESIDENT CHIEF OPER.OFFICER		
SUN OIL CO.	DONAHUE,ROBERT W.	EXEC.VICE PRESIDENT	70	PR
STANDARD OIL CO.OF CALIF.	HIGGINS,J.T.			
STANDARD OIL CO.OF CALIF.	FUNKHOUSER,L.W.	VICE PRESIDENT		
STANDARD OIL CO.OF CALIF.	BROWN,HILLYER			
STANDARD OIL CO.OF CALIF.	BOWER,D.L.	VICE PRESIDENT		
OCCIDENTAL PETROLEUM CORP.	HEBNER,PAUL C.	VICE PRESIDENT SECRETARY	60	PR
LOUISIANA LAND & EXPLOR.	WILLIAMSON,E.L.	PRESIDENT	71	PR
LONE STAR GAS CO.	BERRY,CLAY J.		58	73
GENERAL CRUDE OIL CO.	THOMPSON,W.C.			
GENERAL CRUDE OIL CO.	HUNTER,F.A.	VICE PRESIDENT		
GENERAL CRUDE OIL CO.	GREGORY,T.W. JR.			
GENERAL CRUDE OIL CO.	CUTBIRTH,J.W.	EXEC.VICE PRESIDENT		
GENERAL CRUDE OIL CO.	BURNEY,C.R.			
GENERAL CRUDE OIL CO.	BARNARD,W.P.	VICE PRESIDENT		
GEN AMER. OIL CO. OF TEXAS	KROUSKOP,NORMAN W.	SR.VICE PRESIDENT		PR
GEN AMER. OIL CO. OF TEXAS	GOSS,JAMES W.	EXEC.VICE PRESIDENT FMR VICE PRESIDENT		PR
GEN AMER. OIL CO. OF TEXAS	ARDREY,RUSHTON L.			PR
EXXON CORP.	VASQUEZ,SIRO		65	PR
EXXON CORP.	KAUFFMANN,HOWARD C.		74	PR
EXXON CORP.	GREEVEN,WOLFGANG A.M.		61	69
EXXON CORP.	BURRILL,CECIL L.		59	67
EXCHANGE OIL AND GAS CORP.	PREGEANT,LAWRENCE L. JR.			
EXCHANGE OIL AND GAS CORP.	LOHMAN,LEWIS T.			
EXCHANGE OIL AND GAS CORP.	HAYES,J. WILLIAM			
EXCHANGE OIL AND GAS CORP.	CARSEY,J. BEN			
COMMONWEALTH OIL REFINING	KEITH,NORMAN C.	CHAIR.OF BOARD PRESIDENT	70	PR
COMMONWEALTH OIL REFINING	GUNTER,HERMAN G.		65	66
CLINTON OIL CO.	MEHLICH,WILLIAM O.		67	70
CLINTON OIL CO.	KOLLSMAN,PAUL		67	68
CLINTON OIL CO.	FUNKE,CARL A.		66	73
CLINTON OIL CO.	ABRAMS,LARRY		66	70
CLARK OIL & REFINING CORP.	STACKNER,JOHN S.	EXEC.VICE PRESIDENT	34	70
CLARK OIL & REFINING CORP.	PALMER,KENNETH J.	VICE PRESIDENT	72	PR
CLARK OIL & REFINING CORP.	JANDACEK,GEORGE W.	EXEC.VICE PRESIDENT	64	PR
CLARK OIL & REFINING CORP.	HILL,OWEN L.	PRESIDENT	59	PR
CLARK OIL & REFINING CORP.	DAWES,I.H.		46	PR
CLARK OIL & REFINING CORP.	CRAWFORD,JOHN A.	VICE PRESIDENT	50	64
CLARK OIL & REFINING CORP.	CLARK,EMORY T.	CHAIR.OF BOARD	34	PR
CITIES SERVICE CO.	WHEELER,CHARLES V.	GENERAL COUNSEL	69	PR
CITIES SERVICE CO.	WATSON,BURL S.	CHAIR.OF BOARD	40	66
CITIES SERVICE CO.	WARREN,J. ED	PRESIDENT	58	65
CITIES SERVICE CO.	WAIDELICH,CHARLES J.	PRESIDENT		
CITIES SERVICE CO.	TUCKER,REESE H.	VICE PRESIDENT	62	66
CITIES SERVICE CO.	MITCHELL,CHARLES S.	CHAIR.OF BOARD	55	72
CITIES SERVICE CO.	MEYER,JOHN E.	EXEC.VICE PRESIDENT	72	PR
CITIES SERVICE CO.	HILL,GEORGE H. JR.	GENERAL COUNSEL	53	69
CITIES SERVICE CO.	CHRISTIAN,ERLE G.	SR.VICE PRESIDENT	51	66
CITIES SERVICE CO.	BURNS,ROY R.	VICE PRESIDENT	66	70
CITIES SERVICE CO.	BROOKS,EDWIN B.	VICE PRESIDENT	64	73

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CITIES SERVICE CO.	BOCKELKEN,HAROLD E.	ASSISTANT SECRETARY	62 65		
BELCO PETROLEUM CO	WALTER,ARTHUR M.	VICE PRESIDENT	59 PR		
BELCO PETROLEUM CO	TAYLOR,JACK G.		59 PR		
BELCO PETROLEUM CO	STERN,MILTON	EXEC.VICE PRESIDENT	74 PR		
BELCO PETROLEUM CO	SALTZ,JACK	SR.VICE PRESIDENT	59 PR		
BELCO PETROLEUM CO	RUBEN,LAWRENCE		59 PR		
BELCO PETROLEUM CO	BINTLIFF,DAVID C.		59 PR		
BEACON OIL CO.	INGRAM,R.C.	SR.VICE PRESIDENT			
UNION TEXAS PETROLEUM	NESTY,GLEN A.	FMR VICE PRESIDENT	59 69		
UNION TEXAS PETROLEUM	MUNRO,I.H.	VICE PRESIDENT	62 66		
UNION TEXAS PETROLEUM	MARSHALL,J.HOWARD	FMR VICE PRESIDENT DIVISION PRESIDENT	62 69		
UNION TEXAS PETROLEUM	FOOSHEE,IRB H.	FMR VICE PRESIDENT	62 69		
UNION TEXAS PETROLEUM	FERGUSON,HARRY S.	CHAIR.OF EXEC.COMM.	55 66		
UNION TEXAS PETROLEUM	COLI,G.JOHN	FMR VICE PRESIDENT	70 71		
TEXAS CITY REFINING,INC.	YOUNG,E.H.		70 PR		
TEXAS CITY REFINING,INC.	STONE,J.W.		73 PR		
TEXAS CITY REFINING,INC.	STEELE,W.T.		64 72		
TEXAS CITY REFINING,INC.	SMITH,J.N.		64 67		
TEXAS CITY REFINING,INC.	SHUGHART,L.M.		64 64		
TEXAS CITY REFINING,INC.	ROOP,R.G.		64 65		
TEXAS CITY REFINING,INC.	RILEY,C.H.		73 PR		
TEXAS CITY REFINING,INC.	PENDLETON,E.B. JR.		64 65		
TEXAS CITY REFINING,INC.	MILLER,W.S.		64 64		
TEXAS CITY REFINING,INC.	KISH,A.J.		71 PR		
TEXAS CITY REFINING,INC.	HARRIS,M.E.		66 69		
TEXAS CITY REFINING,INC.	GREEN,SHIRLEY		73 PR		
TEXAS CITY REFINING,INC.	GERVAN,R.B.		64 70		
TEXAS CITY REFINING,INC.	FIELDS,W.J.	CHAIR.OF BOARD	64 PR		
TEXAS CITY REFINING,INC.	FETTER,W.H.	PRESIDENT	64 PR		
TEXAS CITY REFINING,INC.	FELAND,JOHN J.	VICE-CHAIR.OF BOARD	66 PR		
TEXAS CITY REFINING,INC.	FALLON,E.H.		70 73		
TEXAS CITY REFINING,INC.	ESBENSHADE,W.L.		68 72		
TEXAS CITY REFINING,INC.	CONNOR,G.G.		64 65		
TEXAS CITY REFINING,INC.	BUCHHOLZ,J.H.		66 PR		
TENNECO INC.	SYMONDS,NATHANIEL		64 68		
TENNECO INC.	SYMONDS,GARDINER	CHAIR.OF BOARD	43 71		
TENNECO INC.	SCOTT,W.E.	PRESIDENT CHIEF EXEC.OFFICER	66 74		
TENNECO INC.	NELSON,ROY S.		46 64		
TENNECO INC.	MCGEE,R.E.	PRESIDENT CHIEF EXEC.OFFICER	70 74		
TENNECO INC.	MCELVANEY,EUGENE		45 68		
TENNECO INC.	JOHNSON,CECIL C.	VICE-CHAIR.OF BOARD	63 68		
TENNECO INC.	ELLIS,SYDNEY T.	EXEC.VICE PRESIDENT	69 74		
TENNECO INC.	CAREY,W.D.P.	CONSULTANT	66 72		
TENNECO INC.	BURROW,HAROLD	PRESIDENT	59 66		
TENNECO INC.	ASKIN,SIMON	EXEC.VICE PRESIDENT	66 74		
SHELL OIL COMPANY	PEET,E.CHESTER		54 72		
SHELL OIL COMPANY	MCCURDY,R.C.	FMR PRESIDENT	55 69		
SHELL OIL COMPANY	KEMBALL-COOK,D.B.	FMR PRESIDENT	58 71		
SHELL OIL COMPANY	HUMPHREYS,C.W.		65 67		
SHELL OIL COMPANY	GARDNER,J.W.		62 65		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
SHELL OIL COMPANY	DOOLITTLE,J.H.	FMR VICE PRESIDENT	46 67		
SHELL OIL COMPANY	CLARK,J.E.	FMR VICE PRESIDENT	61 67		
SHELL OIL COMPANY	CHRISTIANSON,E.D.	FMR VICE PRESIDENT	67 70		
PANHANDLE ESTRN PIPE LN.CO	SANDERS,W.K.	CHAIR.OF BOARD PRESIDENT	59 73		
PANHANDLE ESTRN PIPE LN.CO	ROBINSON,FREDERICK H.	CHAIR.OF BOARD	56 73		
PANHANDLE ESTRN PIPE LN.CO	O'SHIELDS,R.L.	PRESIDENT CHIEF EXEC.OFFICER	69 PR		
PANHANDLE ESTRN PIPE LN.CO	MAGUIRE,WILLIAM G.	CHAIR.OF BOARD PRESIDENT	30 32		
PANHANDLE ESTRN PIPE LN.CO	MAGUIRE,WILLIAM G.	CHAIR.OF BOARD PRESIDENT	30 32		
PANHANDLE ESTRN PIPE LN.CO	KEMPER,JAMES M. JR.	CHAIR.OF BOARD PRESIDENT	68 PR		
PANHANDLE ESTRN PIPE LN.CO	KEEFE,WILLIAM C.	CHAIR.OF BOARD	66 PR		
PANHANDLE ESTRN PIPE LN.CO	HUNSUCKER,R.D.	EXEC.VICE PRESIDENT	74 PR		
PANHANDLE ESTRN PIPE LN.CO	BIERWIRTH,JOHN E.		37 40		
MONSANTO COMPANY	WHEELER,EARLE G.		70 PR		
MOBIL OIL CORPORATION	WOLFE,PAUL J.	EXEC.VICE PRESIDENT	74 PR		
MOBIL OIL CORPORATION	WILLETTS,HERBERT		51 68		
MOBIL OIL CORPORATION	SOLOMON,CHARLES E.		69 72		
MOBIL OIL CORPORATION	LAMONT,DALLAS R.		55 64		
MOBIL OIL CORPORATION	DANNER,ARTHUR V.		59 66		
MOBIL OIL CORPORATION	BELLMAN,VERNON A.		56 65		
MESA PETROLEUM COMPANY	WOLF,R.EDWARD	VICE PRESIDENT	64 68		
MESA PETROLEUM COMPANY	TOLES,HOLLAND E.		64 68		
MESA PETROLEUM COMPANY	O'BRIEN,JOHN G.		64 68		
MESA PETROLEUM COMPANY	MARSALIS,DON S.		64 68		
MESA PETROLEUM COMPANY	CLARK,LAWTON L.	VICE PRESIDENT	64 69		
MARATHON OIL COMPANY	DORN,CLAYTON L.	GENERAL COUNSEL	61 67		
MARATHON OIL COMPANY	JACKSON,CHARLES A.	VICE PRESIDENT	59 69		
MARATHON OIL COMPANY	FISHER,MAX M.		62 63		
MARATHON OIL COMPANY	COUCH,J.O.TERRELL	GENERAL COUNSEL	69 PR		
MARATHON OIL COMPANY	BISH,GLENN F.	SR.VICE PRESIDENT	59 69		
LION OIL CO.	WINSTON,M.M.	PRESIDENT			
LION OIL CO.	WARR,A.J.	EXEC.VICE PRESIDENT			
LION OIL CO.	KOOLSBERGEN,H.I.	CHAIR.OF BOARD			
GULF OIL CORPORATION	WHITEFORD,W.K.		64 67		
GULF OIL CORPORATION	MELLON,R.K.		64 69		
FARMLAND INDUSTRIES,INC.	YOUNG,HOWARD A.		68 PR		
FARMLAND INDUSTRIES,INC.	YEAGER,ARTHUR J.		71 PR		
FARMLAND INDUSTRIES,INC.	WEST,JERE O.		70 PR		
FARMLAND INDUSTRIES,INC.	SCHULTZ,REYNOLDS		65 67		
FARMLAND INDUSTRIES,INC.	SCHROEDER,ALLEN		73 PR		
FARMLAND INDUSTRIES,INC.	SCHRAMM,ALBERT		67 PR		
FARMLAND INDUSTRIES,INC.	PETTY,EDGAR N.		70 PR		
FARMLAND INDUSTRIES,INC.	MCCRACKEN,VERNER		64 65		
FARMLAND INDUSTRIES,INC.	JORGENSON,ARCH		64 65		
FARMLAND INDUSTRIES,INC.	JOHNSON,J. ELMER		65 68		
FARMLAND INDUSTRIES,INC.	COOPER,J.B.		68 71		
FARMLAND INDUSTRIES,INC.	BYERS,WILLIAM A.		64 65		
FARMLAND INDUSTRIES,INC.	BALL,RALPH		72 PR		
EL PASO NATURAL GAS CO	HOOPER,EUGENE S.		60 65		
EL PASO NATURAL GAS CO	ARNOLD,LAWRENCE M.		60 68		
CROWN CENTRAL PETROL CORP	WINZENRIED,JESSE D.	VICE PRESIDENT	74 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CROWN CENTRAL PETROL CORP	WILSON,CLYDE A.	SR.VICE PRESIDENT	65 PR		
CROWN CENTRAL PETROL CORP	ROSENBERG,HENRY A. JR.	PRESIDENT CHIEF EXEC.OFFICER	55 PR		
CROWN CENTRAL PETROL CORP	MORRIS,A.J.	EXEC.VICE PRESIDENT CHIEF OPER.OFFICER	65 PR		
CROWN CENTRAL PETROL CORP	LOVING,J.I.	VICE PRESIDENT	73 PR		
CROWN CENTRAL PETROL CORP	KOBDISH,RICHARD M.	VICE PRESIDENT	70 PR		
CROWN CENTRAL PETROL CORP	GINDER,W.M.	VICE PRESIDENT	73 PR		
CROWN CENTRAL PETROL CORP	BOWIE,C.KEATING	ATTORNEY PARTNER	73 PR		
NONE-RETIRED					
STANDARD OIL CO.OF CALIF.	VESPER,H.G.				
STANDARD OIL CO.OF CALIF.	PETERSON,E.R.				
STANDARD OIL CO.OF CALIF.	CRANDALL,K.H.				
NOT REPORTED					
TOTAL LEONARD,INC.	TUCKER,WILLIAM G.	VICE PRESIDENT	72 PR		
TOTAL LEONARD,INC.	STERN,ALBERT M.		55 70		
TOTAL LEONARD,INC.	SEYFERTH,OTTO A.		55 66		
TOTAL LEONARD,INC.	ROSS,EDMUND W.		55 66		
TOTAL LEONARD,INC.	POYEN,JOHN S.	PRESIDENT	72 73		
TOTAL LEONARD,INC.	PFARR,JOHN S.	VICE PRESIDENT	46 69		
TOTAL LEONARD,INC.	LEHERRERE,JEAN	VICE PRESIDENT	70 71		
TOTAL LEONARD,INC.	JACQMIN,A.M.	PRESIDENT	73 PR		
TOTAL LEONARD,INC.	HAMILTON,WILLIAM T.	PRESIDENT	70 71		
TOTAL LEONARD,INC.	FAWKE,J.E.	SR.VICE PRESIDENT	73 PR		
TOTAL LEONARD,INC.	DUVAL,B.C.	VICE PRESIDENT	72 PR		
TOTAL LEONARD,INC.	DIEHL,LLOYD H.		52 66		
TOTAL LEONARD,INC.	BEAKE,HAROLD C.	ATTORNEY	54 66		
TOTAL LEONARD,INC.	ANTHONY,ROBERT L.	VICE PRESIDENT SECRETARY	59 70		
TEXAS OIL & GAS CO.	FITCH,WALTER 3RD		55 PR		
TEXAS OIL & GAS CO.	ELLIS,RALPH JR.	EXEC.VICE PRESIDENT	69 PR		
TEXAS OIL & GAS CO.	BEECHERL,LOUIS A. JR	CHAIR.OF BOARD CHIEF EXEC.OFFICER	57 PR		
TEXAS CITY REFINING,INC.	STONE,J.W.		73 PR		
TEXAS CITY REFINING,INC.	STEELE,W.T.		64 72		
TEXAS CITY REFINING,INC.	SMITH,J.N.		64 67		
TEXAS CITY REFINING,INC.	SHUGHART,L.M.		64 64		
TEXAS CITY REFINING,INC.	ROOP,R.G.		64 65		
TEXAS CITY REFINING,INC.	RILEY,C.H.		73 PR		
TEXAS CITY REFINING,INC.	PENDLETON,E.B. JR.		64 65		
TEXAS CITY REFINING,INC.	MILLER,W.S.		64 64		
TEXAS CITY REFINING,INC.	KISH,A.J.		71 PR		
TEXAS CITY REFINING,INC.	HARRIS,M.E.		66 69		
TEXAS CITY REFINING,INC.	GREEN,SHIRLEY		73 PR		
TEXAS CITY REFINING,INC.	GERVAN,R.B.		64 70		
TEXAS CITY REFINING,INC.	FIELDS,W.J.	CHAIR.OF BOARD	64 PR		
TEXAS CITY REFINING,INC.	FETTER,W.H.	PRESIDENT	64 PR		
TEXAS CITY REFINING,INC.	FELAND,JOHN J.	VICE-CHAIR.OF BOARD	66 PR		
TEXAS CITY REFINING,INC.	FALLON,E.H.		70 73		
TEXAS CITY REFINING,INC.	ESBENSHADE,W.L.		68 72		
TEXAS CITY REFINING,INC.	CONNOR,G.G.		64 65		
TEXAS CITY REFINING,INC.	BUCHHOLZ,J.H.		66 PR		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
TEXACO,INC.	YOUNG,WILFROD R.	VICE-CHAIR.OF BOARD GENERAL COUNSEL	72 PR		
TESCRO PETRCLEUM CORP.	AMMANN,JOHN J.				
SUN OIL CO.	WASHBURN,ABBOTT		73 74		
SUN OIL CO.	TAYLOR,J. DWAYNE	EXEC.VICE PRESIDENT	73 PR		
SUN OIL CO.	PEW,WALTER C.		51 PR		
SUN OIL CO.	LAYTON,JOSEPH R.	VICE PRESIDENT	68 PR		
SUN OIL CO.	DOUMA,JOHN H.	SR.VICE PRESIDENT	68 71		
SUN OIL CO.	COLLINS,JACK A.	VICE PRESIDENT	69 71		
STANDARD OIL CO.OF CALIF.	BELL,H.W.	VICE PRESIDENT			
SOUTHWSTRN OIL & REFINING	STEPHENSON,G.W.	VICE PRESIDENT	64 73		
SOUTHWSTRN OIL & REFINING	SIMARD,LEON		68 69		
SOUTHWSTRN OIL & REFINING	SIMARD,JEAN		64 73		
SOUTHWSTRN OIL & REFINING	SIMARD,J.J.	VICE PRESIDENT	64 73		
SOUTHWSTRN OIL & REFINING	SIMARD,ARTHUR		64 73		
SOUTHWSTRN OIL & REFINING	SELTZER,S.S. JR.	PRESIDENT	64 73		
SOUTHWSTRN OIL & REFINING	SAGER,H.R.	EXEC.VICE PRESIDENT	64 73		
SOUTHWSTRN OIL & REFINING	PRITCHARD,JOHN M.		64 67		
SOUTHWSTRN OIL & REFINING	OUTWATER,ADDISON		64 64		
SOUTHWSTRN OIL & REFINING	HICKS,WALTER N.		69 73		
SOUTHWSTRN OIL & REFINING	HEAD,HAYDEN W.		71 73		
SOUTHLAND OIL CO.	WRIGHT,THOMAS		64 68		
SOUTHLAND OIL CO.	WELLS,W. CALVIN		64 64		
SOUTHLAND OIL CO.	ROBERTS,HALE E.		64 65		
SOUTHLAND OIL CO.	PATTERSON,JOHN D.		64 74		
SOUTHLAND OIL CO.	NEWMAN,JAMES W. 3RD		65 67		
SOUTHLAND OIL CO.	MARTIN,DONALD G.		64 68		
SOUTHLAND OIL CO.	INMAN,CECIL E. JR.		64 68		
SOUTHLAND OIL CO.	HOLLISTER,KENNETH		65 68		
SOUTHLAND OIL CO.	CALHOUN,JOHN A.		64 65		
SOUTHLAND OIL CO.	BARBANELL,ROBERT L.		65 70		
PHILLIPS PETROLEUM CO.	LYON,E.H.	VICE PRESIDENT	64 65		
PENNZOIL CO.	ZEHRUNG,W.S.		45 64		
PENNZOIL CO.	VAN TINE,J.Z.		50 64		
PENNZOIL CO.	SAXE,A.J.		47 64		
PENNZOIL CO.	MURRAY,THOMAS O'D.		52 67		
PENNZOIL CO.	MITCHELL,JOHN B.		63 68		
PENNZOIL CO.	BOYLE,EDWARD P.		53 66		
PENNZOIL CO.	BANNEROT,F.G. JR.		65 68		
PANHANDLE ESTRN PIPE LN.CO	STORRS,RICHARD S.		66 PR		
PANHANDLE ESTRN PIPE LN.CO	SMITH,GERARD C.		73 PR		
PANHANDLE ESTRN PIPE LN.CO	HERRON,S.DAVIDSON JR.		68 69		
PANHANDLE ESTRN PIPE LN.CO	BELL,DRUMMOND C.		70 PR		
PANHANDLE ESTRN PIPE LN.CO	ALLEY,JAMES B.		63 70		
OCCIDENTAL PETROLEUM CORP.	WILLERS,T.F.	VICE-CHAIR.OF BOARD	68 71		
OCCIDENTAL PETROLEUM CORP.	THEIS,FRANCIS W.	EXEC.VICE PRESIDENT	73 73		
OCCIDENTAL PETROLEUM CORP.	TEN EYCK,HUGH S.	EXEC.VICE PRESIDENT	64 67		
OCCIDENTAL PETROLEUM CORP.	ROSE,ROBERT S.	VICE PRESIDENT GENERAL COUNSEL	62 67		
OCCIDENTAL PETROLEUM CORP.	GEISMAR,CLAUDE	EXEC.VICE PRESIDENT MANAGING DIRECTOR	68 71		
OCCIDENTAL PETROLEUM CORP.	DEUTSCH,EBERHARD P.	ATTORNEY	64 70		
OCCIDENTAL PETROLEUM CORP.	DEANE,BEN C.		66 69		
OCCIDENTAL PETROLEUM CORP.	DAVIS,W.R.	SR.VICE PRESIDENT	66 69		
OCCIDENTAL PETROLEUM CORP.	COMMONS,DORMAN L.	SR.VICE PRESIDENT	71 72		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
OCCIDENTAL PETROLEUM CORP.	BRYANT,F.L.		68 70		
OCCIDENTAL PETROLEUM CORP.	BERRY,LOWELL W.		64 64		
OCCIDENTAL PETROLEUM CORP.	BELLANO,WILLIAM	FMR PRESIDENT CHIEF OPER.OFFICER	68 72		
MURPHY OIL CO.	SWEENEY,ROBERT J. JR.	PRESIDENT CHIEF OPER.OFFICER	72 PR		
MURPHY OIL CO.	MCCLURE,JOHN J. JR.		63 64		
MURPHY OIL CO.	COWGER,CHARLES E.	VICE PRESIDENT	69 73		
MCCULLOCH OIL CORP.	WOOD,C.V. JR.	PRESIDENT	64 PR		
MCCULLOCH OIL CORP.	WITTE,MERLIN M.	EXEC.VICE PRESIDENT	60 PR		
MCCULLOCH OIL CORP.	RENDIGS,CHARLES W. JR.		71 PR		
MCCULLOCH OIL CORP.	OLIVIER,EDWARD F.	VICE PRESIDENT TREASURER	72 PR		
MCCULLOCH OIL CORP.	MCCULLOCH,ROBERT P.	CHAIR.OF BOARD	60 PR		
MCCULLOCH OIL CORP.	LOWELL,JAMES R. JR.		64 71		
MCCULLOCH OIL CORP.	KIRCHER,DON G.	VICE PRESIDENT GENERAL COUNSEL	72 PR		
MCCULLOCH OIL CORP.	KENDALL,D.M.		67 72		
MCCULLOCH OIL CORP.	HEGNER,JOSEPH L.	VICE-CHAIR.OF BOARD	60 PR		
MCCULLOCH OIL CORP.	GLEASON,DENIS J.	VICE PRESIDENT	60 PR		
MCCULLOCH OIL CORP.	FAZIO,PATRICK J.	VICE PRESIDENT	60 PR		
MCCULLOCH OIL CORP.	D'ASSALENAUX,LOUIS R.	VICE PRESIDENT	63 PR		
MCCULLOCH OIL CORP.	CAVANAUGH,JOHN D.	VICE PRESIDENT	60 72		
MCCULLOCH OIL CORP.	BRAZELTON,ROBERT S.	VICE PRESIDENT	63 72		
LONE STAR GAS CO.	SIMPSON,J.M.		42 67		
LONE STAR GAS CO.	EULER,RALPH S.	VICE PRESIDENT	52 67		
LION OIL CO.	TALBOT,M.J.				
LION OIL CO.	LYON,J.	VICE PRESIDENT SECRETARY			
HUSKY OIL LIMITED	KALB,JOHN L.		60 69		
GENERAL CRUDE OIL CO.	WESSENDORFF,J.C.				
GEN AMER. OIL CO. OF TEXAS	DAYSON,SYLVESTER		64 71		
FOREST OIL CORP.	SNYDER,C.H.		64 73		
FOREST OIL CORP.	LEDEBUR,C.W.	SR.VICE PRESIDENT ASSISTANT SECRETARY	67 PR		
FOREST OIL CORP.	KING,JOHN F.	VICE PRESIDENT	69 PR		
FOREST OIL CORP.	BIRD,W.H.	VICE PRESIDENT	64 PR		
DIAMOND SHAMROCK OIL & GAS	WILLIAMS,ROBERT E.		69 70		
DIAMOND SHAMROCK OIL & GAS	WARREN,FRANK B.		64 65		
DIAMOND SHAMROCK OIL & GAS	VIRDEN,JOHN C.		64 69		
DIAMOND SHAMROCK OIL & GAS	STIER,GEORGE G.		67 71		
DIAMOND SHAMROCK OIL & GAS	RUSH,J. AVERY JR.	PRESIDENT	67 70		
DIAMOND SHAMROCK OIL & GAS	MORRISON,ROBERT G.		67 70		
DIAMOND SHAMROCK OIL & GAS	LEWIS,EDGAR S.		66 71		
DELHI INTERNATIONAL OIL CORP	MACGUIRE,J.T.		64 70		
DELHI INTERNATIONAL OIL CORP	BYRD,D.H.		64 70		
CONTINENTAL OIL CO.	BLAUVELT,HOWARD W.	CHAIR.OF BOARD CHIEF EXEC.OFFICER			
COMMONWEALTH OIL REFINING	CASEY,SAM H.		57 71		
CLARK OIL & REFINING CORP.	CARTER,RAYMOND A.		54 72		
CITIES SERVICE CO.	SELLERS,ROBERT V.	CHAIR.OF BOARD	69 PR		
CITIES SERVICE CO.	BURNS,JOHN L.	CHAIR.OF BOARD	65 68		
BURMAH OIL INC.	WILLIAMS,N.J.D.	EXECUTIVE DIRECTOR	71 PR		
BURMAH OIL INC.	VLACK,R.C.	VICE PRESIDENT	70 74		
BURMAH OIL INC.	STROUD,H.J.	SR.VICE PRESIDENT	70		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
BURMAH OIL INC.	STERN,A.R.	CONSULTANT	73 74		
BURMAH OIL INC.	SIMONIS,P.G.	EXECUTIVE DIRECTOR	74 PR		
BURMAH OIL INC.	SHEPPARD,J.C.	SR.VICE PRESIDENT	70 74		
BURMAH OIL INC.	SCHELL,W.H.	VICE PRESIDENT	72 74		
BURMAH OIL INC.	RICE,JAMES T.	VICE PRESIDENT	71 74		
BURMAH OIL INC.	RAINIER,P.W.	VICE PRESIDENT	71 74		
		FMR VICE PRESIDENT			
BURMAH OIL INC.	O'NEIL,S.V.	TREASURER	71 72		
BURMAH OIL INC.	MILLER,WM.R.	VICE PRESIDENT	71 74		
		SECRETARY			
BURMAH OIL INC.	MARCHAND,G.Y.	VICE PRESIDENT	73 74		
		TREASURER			
BURMAH OIL INC.	KEATON,D.N.	SR.VICE PRESIDENT	70		
BURMAH OIL INC.	HOEFT,DAVID R.	SR.VICE PRESIDENT	70		
BURMAH OIL INC.	FOWLER,JAMES B.	VICE PRESIDENT	70 71		
BURMAH OIL INC.	DURBIN,JAMES H.		71 74		
BURMAH OIL INC.	DUFF,ROBERT	VICE PRESIDENT	71 74		
		CONTROLLER			
BURMAH OIL INC.	DOSS,D.L.	VICE PRESIDENT	74		
		CONTROLLER			
BURMAH OIL INC.	DEWHURST,J.D.	EXECUTIVE DIRECTOR	72 PR		
BURMAH OIL INC.	DAVIES,JOHN		71 72		
BURMAH OIL INC.	COOK,R.L.	SR.VICE PRESIDENT	70 71		
BELCO PETROLEUM CO	HILL,T.W. JR.		63 64		
ASHLAND OIL, INC.	SEATON,E.W.		36 69		
ASHLAND OIL, INC.	MCCOWAN,ROBERT T.	SR.VICE PRESIDENT	70 PR		
ASHLAND OIL, INC.	HALL,JOHN R.	EXEC.VICE PRESIDENT	68 PR		
ASHLAND OIL, INC.	GAMMON,WILLIAM H.	VICE PRESIDENT	66 PR		
ASHLAND OIL, INC.	FISHER,J. ROBERT		67 PR		
ASHLAND OIL, INC.	ATKINS,ORIN E.	CHAIR.OF BOARD	62 PR		
		CHIEF EXEC.OFFICER			
APCO OIL CORP.	SUTTON,W.J.	VICE PRESIDENT	69 71		
APCO OIL CORP.	SIESS,C.P.,JR.	PRESIDENT	69 PR		
APCO OIL CORP.	SANDLIN,MARLIN E.		64 65		
APCO OIL CORP.	RODMAN,ROLAND V.	PRESIDENT	61 72		
APCO OIL CORP.	REYNAL,WILLIAM J.		69 73		
APCO OIL CORP.	PRICHARD,NEAL B.	SR.VICE PRESIDENT	61 71		
APCO OIL CORP.	PITTINGER,J.H.	PRESIDENT	68 73		
		VICE-CHAIR.OF BOARD			
APCO OIL CORP.	OXLEY,JOHN T.		60 73		
APCO OIL CORP.	NEPTUNE,MILLARD K.	PRESIDENT	65 66		
APCO OIL CORP.	NELLE,GLEN A.	VICE PRESIDENT	72 PR		
APCO OIL CORP.	MILLARD,MARK J.		61 PR		
APCO OIL CORP.	MARSHALL,HOWARD J.		61 65		
APCO OIL CORP.	GLANVILLE,JAMES W.	PARTNER	63 67		
APCO OIL CORP.	DAUM,F.ARNOLD		73 PR		
APCO OIL CORP.	BOYD,NEALE	SR.VICE PRESIDENT	62 72		
		SECRETARY			
AMERICAN PETROFINA, INC.	SHEA,JOHN M. JR		60 64		
AMERICAN PETROFINA, INC.	MEEK,PAUL D.		68 PR		
AMERICAN PETROFINA, INC.	HOOVER,ALLAN		63 71		
AMERICAN PETROFINA, INC.	FLECK,G. PETER		56 67		
AMERICAN PETROFINA, INC.	COLEMAN,LEIGHTON H.		60 69		
AMERICAN PETROFINA, INC.	BRASS,EDWARD K.		63 70		
AMERADA HESS CORP.	STANTON,ROBERT J.	FMR VICE PRESIDENT	68 71		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
AMERADA HESS CORP.	MCCOLLOUGH,E.M.		48		
AMERADA HESS CORP.	KRAMER, PHILIP	FMR CHAIR.OF BOARD PRESIDENT CHIEF OPER.OFFICER	70		
AMERADA HESS CORP.	KANE,R. KEITH		62 73		
AMERADA HESS CORP.	JACOBSON,A.T.	FMR PRESIDENT	63 72		
AMERADA HESS CORP.	HAMMOND,JOHN P.	FMR VICE PRESIDENT	63 71		
AMERADA HESS CORP.	GAST,HAROLD N.	FMR VICE PRESIDENT	69		
AMERADA HESS CORP.	DEVERIN,B.T.	SR.VICE PRESIDENT	71		
AMERADA HESS CORP.	CHRISTIANSON,E.G.		71 72		
AMERADA HESS CORP.	BEAUMONT,RICHARD A.		70 71		
NOT REPORTED-DECEASED					
TESORO PETROLEUM CORP.	SKARTVEDT,C.G.				
SUN OIL CO.	PEW,J. HOWARD	CHAIR.OF BOARD	06 71		
ROCK ISLAND REFINERY CORP.	SIMMONS,L.B.	CHAIR.OF BOARD	64 66		
PHILLIPS PETROLEUM CO.	TATE,C.C.	VICE PRESIDENT	65 70		
PHILLIPS PETROLEUM CO.	HEWITT,W.C.	EXEC.VICE PRESIDENT CHAIR.OF FIN.COMM.	64 73		
PENNZOIL CO.	SUHR,CHARLES L.		43 64		
PENNZOIL CO.	COCKRELL,E. JR.		69 72		
PANHANDLE ESTRN PIPE LN.CO	DANIELS,JOSEPH J.		62 65		
OCCIDENTAL PETROLEUM CORP.	WALET,EUGENE H.JR.		64 68		
OCCIDENTAL PETROLEUM CORP.	REZZONICO,LOUIS A.		64 69		
OCCIDENTAL PETROLEUM CORP.	REID,E.C.		59 71		
OCCIDENTAL PETROLEUM CORP.	MAGUIRE,WALTER N.		61 64		
OCCIDENTAL PETROLEUM CORP.	HUNSAKER,S.V.		64 65		
OCCIDENTAL PETROLEUM CORP.	GIMBEL,FREDERIC		59 66		
LOUISIANA LAND & EXPLOR.	YOUNGS,ROBERT M.		29 71		
LOUISIANA LAND & EXPLOR.	RITCHIE,FRANK M.		56 69		
LOUISIANA LAND & EXPLOR.	MATHEY,DEAN		31 72		
LOUISIANA LAND & EXPLOR.	JACOBSEN,A.		29 67		
LOUISIANA LAND & EXPLOR.	HALL,MATHEW D.		49 74		
LOUISIANA LAND & EXPLOR.	CAHILL,JOHN T.		43 66		
KERR-MCGEE CORP.	TERRILL,DEAN		65 72		
KERR-MCGEE CORP.	STRAUS,FREDERICK W.		65 67		
KERR-MCGEE CORP.	KIDDOO,GUY C.		65 72		
KERR-MCGEE CORP.	KERR,TRAVIS M.		65 70		
GENERAL CRUDE OIL CO.	BULLARD,D.R.				
GEN AMER. OIL CO. OF TEXAS	STONE,ROBERT R.		64 65		
GEN AMER. OIL CO. OF TEXAS	STOCKTON,JAMES R. SR.		64 69		
GEN AMER. OIL CO. OF TEXAS	SHERROUSE,CHARLES B.		64 71		
GEN AMER. OIL CO. OF TEXAS	RIGSBEE,J.KENNETH		64 68		
GEN AMER. OIL CO. OF TEXAS	PERRYMAN,W.LEWIS JR.		64 66		
GEN AMER. OIL CO. OF TEXAS	O'NEILL,LEWIS P.		64 72		
GEN AMER. OIL CO. OF TEXAS	KISTLER,WILLIAM L. JR.		64 64		
GEN AMER. OIL CO. OF TEXAS	HAAS,SAMUEL		64 64		
GEN AMER. OIL CO. OF TEXAS	GATTI,HAL M.		64 67		
GEN AMER. OIL CO. OF TEXAS	BURGESS,J. PORTER		64 68		
FOREST OIL CORP.	MILLER,W. FRANK		64 64		
FELMONT OIL CORP.	FITTING,RALPH U. JR.		54 64		
DIAMOND SHAMROCK OIL & GAS	POST,ALEXIS E.		64 69		
DIAMOND SHAMROCK OIL & GAS	MCCONNELL,WILLIAM H.		64 65		
DIAMOND SHAMROCK OIL & GAS	INGLEY,A.H.		64 67		
CROWN CENTRAL PETROL CORP	WATERS,S.K.		52 68		

OIL COMPANY BOARD MEMBERS REPRESENTED ON THE BOARD OR AFFILIATED WITH OTHER COMPANIES

OIL COMPANY	DIRECTOR	TITLE WITH OIL CO.	TERM WITH OIL CO.	TITLE WITH OTHER CO.	TERM WITH OTHER CO.
CROWN CENTRAL PETROL CORP	CABLE,JOHN W. III		36 67		
BELCO PETROLEUM CO	SPIRER,LAWRENCE		69 70		
ASHLAND OIL, INC.	WELLS,EVERETT F.		37 72		
ASHLAND OIL, INC.	FREEMAN,W.C.		35 70		
ASHLAND OIL, INC.	EVANS,C.S.		20 67		
ASHLAND OIL, INC.	BLAZER,R.S.		49 73		
ASHLAND OIL, INC.	BLAZER,PAUL G.		24 66		
ASHLAND OIL, INC.	BECHMAN,WILLIAM G.		50 66		
AMERADA HESS CORP.	MATHEY,DEAN		26 72		
NOT REPORTED-RETIRED					
UNION OIL CO. OF CALIF.	VAUGHAN,K.C.		64 72		
UNION OIL CO. OF CALIF.	TOWLER,JOHN W.		65 69		
UNION OIL CO. OF CALIF.	MILLIGAN,ROBERT L.		65 71		
TEXACO,INC.	EPLEY,MARION J. JR.		64 71		
TESORO PETROLEUM CORP.	HARSHFIELD,C.F.				
SUN OIL CO.	WILSON,JOS. T. JR.	VICE PRESIDENT TREASURER	61 71		
SUN OIL CO.	TALIAFERRO,PAUL E.	DEPUTY CHAIRMAN	68 70		
SUN OIL CO.	SCHROEDER,KINGSLEY V	VICE PRESIDENT	57 71		
SUN OIL CO.	RODGERS,L. GAYLE	VICE PRESIDENT	68 72		
SUN OIL CO.	KIRKBRIDE,CHALMER G.	VICE PRESIDENT	63 69		
SUN OIL CO.	JONES,DONALD P.	SR.VICE PRESIDENT	47 74		
SUN OIL CO.	HENRY,R.PAUL	VICE PRESIDENT	68 71		
SUN OIL CO.	FERGUSON,DARWIN W.	EXEC.VICE PRESIDENT	64 74		
SUN OIL CO.	BRADLEY,ELMER R	VICE PRESIDENT	64 71		
SUN OIL CO.	BOYLE,CHARLES L.	VICE PRESIDENT	64 68		
SUN OIL CO.	ASKEW,WILBURN T.	VICE PRESIDENT	60 74		
STANDARD OIL CO. OF OHIO	MORRILL,EDWARD F.	CHAIR.OF BOARD VICE-CHAIR.OF BOARD	65 68		
STD OIL CO. OF INDIANA	BENTON,DWIGHT F.		49 65		
OCCIDENTAL PETROLEUM CORP.	SCHWARTZ,CHARLES K.		57 72		
OCCIDENTAL PETROLEUM CORP.	HOOKER,R.W.		68 70		
OCCIDENTAL PETROLEUM CORP.	HAMILTON,JAMES L.		68 73		
DIAMOND SHAMROCK OIL & GAS	MAYER,JOHN A.		64 66		
CROWN CENTRAL PETROL CORP	SMITH,KENNETH L.		65 69		
CROWN CENTRAL PETROL CORP	MILLS,L.R.		60 70		
CROWN CENTRAL PETROL CORP	MANGELSDORF,HAROLD G.		66 71		
CROWN CENTRAL PETROL CORP	FORBES,STUART		65 69		
CROWN CENTRAL PETROL CORP	DUNBAR,LEMUEL C.		55 70		
CROWN CENTRAL PETROL CORP	DIWOKY,ROY J.		61 68		
CROWN CENTRAL PETROL CORP	BERTETTI,J.W.		63 70		
ASHLAND OIL, INC.	SHOOLROY,ROSS K.		63 70		
ASHLAND OIL, INC.	DABNEY,E.S.		49 71		
ASHLAND OIL, INC.	CRAIG,EARL M.		66 69		
ASHLAND OIL, INC.	BREUIL,JAMES F.		50 73		

Appendix D

Ownership

OWNERSHIP—SUMMARY TABLE FOR QUESTION 3

Petroleum firm and stockholder	Percent stock owned	Representative of—
Amerada Hess Corp:		
Hess, Leon	20.000	
Cede & Co	6.000	Stock Clearing Corp.
Hess Fdn., Inc	5.700	
Lerche & Co	3.800	Bank of New York.
Kane & Co	2.500	Chase Manhattan Bank.
Sigler & Co	2.300	Manufacturers Hanover Trust Co.
Equitable Life Assurance Soc., U.S	1.900	
Ince & Co	1.500	Morgan Guaranty Trust Co. of New York.
Carothers & Clark	1.400	Bank of Delaware.
Calpers & Co	1.200	Bank of California, N. A.
Bark & Co	1.200	State Street Bank & Trust Co.
Cudd & Co	1.200	Chase Manhattan Bank, N. A.
Gepco	1.100	Prudential Insurance Co. of America.
OTR	1.100	State Teachers Retirement Board of Ohio.
American Petrofina, Inc.:		
American Petrofina Holding	[1] 70.000	
Do	[2] 100.000	
Ashland Oil, Inc.:		
Cede & Co	7.730	New York Stock Exchange brokers and New York City banks.
Douglass & Co	2.200	Affiliated Fund, Inc.
Edal & Co	1.540	Puritan Fund, Inc.
Lerche & Co	1.800	Dreyfus Fund, Inc.
Trude & Co	3.890	
APCO Oil Corp.:		
Ardmerk & Co	2.600	
Bache & Co	1.400	
Brown Bros. Harriman & Co	2.700	
Central National Corp	2.700	
Cudd & Co	2.300	
Hank & Co	1.700	
E. F. Hutton & Co	1.800	
Loeb, Rhoades & Co	15.000	
Merrill Lynch Pierce Fenner & Smith	4.700	
John T. Oxley	1.200	
Pearce & Pettit	3.200	
Pershing & Co	1.900	
Sunmont & Co	2.400	
Tepe & Co	1.400	
Atlantic Richfield Co.:		
Cede & Co	6.300	
Kane & Co	2.600	
Cudd & Co	2.200	
Trustees of Atlantic Richfield Thrift Plan	2.200	
Pitt & Co	1.800	
Sigler & Co	1.100	
Beacon Oil Co.:		
Allen, Anne E	12.100	
Allen, Mary D	11.460	
Allen, Walter B., Jr	4.020	
Dwelle, Marjorie A	11.370	
Dwelle, M. J. & T. W	3.310	
Nibley, Leanore A	14.680	
P. H. Greer Co., Inc	42.090	
Belco Petroleum Corp.:		
Whitfield, B. W. & John C	[3] 84,770	
U.S. Trust Co. of N.Y	[3] 337,313	
Burmah Oil Inc.:		
Burmah Oil Company Ltd owns	[4] 100.000	
Signal Companies, Inc owns	[5] 100.000	
Champlin Petroleum Co.:		
Cudd & Co	3.100	Chase Manhattan Bank.
Equitable Life Assurance Soc., U.S	2.800	
Bark & Co	1.800	State Street Bank & Trust.
Brown Bros. Harriman & Co	1.700	
Lerche & Co	1.500	Bank of New York.
Sigler & Co	1.500	Manufacturers Hanover Trust.
Merrill Lynch Pierce Fenner & Smith	1.300	
Touchstone & Co	1.300	State Street Bank & Trust.
Ferro & Co	1.200	National Shawmut Bank of Boston.

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OWNERSHIP—SUMMARY TABLE FOR QUESTION 3—Continued

Petroleum firm and stockholder	Percent stock owned	Representative of—
Cities Service Co.:		
Cede & Co	6.840	Stock brokers, list unknown.
Bird & Co	6.230	Manufacturers Hanover Trust Co.
Sigler & Co	.730	Do.
Tegge & Co	2.540	Morgan Guaranty Trust Co. (custodian).
Wenonah Development Co	1.920	
Brown Bros. Harriman & Co	2.400	
Lerche & Co	1.260	
Clark Oil & Refining:		
Clark, Emory T	24.310	Clark, Emory T.
Clark & Co	12.470	
Cede & Co	10.040	
Band & Co	5.040	
Stackner Family Fdn., Inc	1.850	
Dawes, I. H	1.540	Dawes, I. H.
Clinton Oil Co.:		
Cede & Co	[6]10.126	
Clinton Oil (Treas. Stock)	3.517	
Clinton, Eleanor F	2.176	
Lusk, William E	1.469	
Merrill Lynch Pierce Fenner & Smith	2.150	
Spellman, J. C	1.268	
Thomas Investment Co	1.082	
Watson, David M	1.146	
Commonwealth Oil Refining:		
Bache & Co., Inc	1.300	
Bishop & Co	1.900	First National Bank of Boston.
Blyth, Eastman Dillon Union Securities Co	1.200	
Carey, Edward M	2.100	
Federal & Co	1.600	First National Bank of Boston.
Harvard & Co	1.200	New England Merchants National Bank.
Keith, Norman C	5.700	Keith is trustee for trust agreements for his children—0.2 percent total.
Kerr McGee Corp	3.000	
Loeb Rhoades & Co	1.900	
Merrill Lynch Pierce Fenner & Smith	7.900	
New England Petrol. Corp	2.600	
Pitcairn	2.600	
Continental Oil Co.:		
Cede & Co	4.030	Various brokers and banks.
Cudd & Co	1.260	
Lerche & Co	1.470	
Pace & Co	2.370	
Pitt & Co	3.290	
Salkeld & Co	4.090	
Crown Central Petroleum:		
Amer. Trad. & Prod. Corp	48.975	
Madison & Co	4.198	Union Trust (Crown Central employee's savings plan).
Tom & Barnt, Ltd	3.777	
Merrill Lynch Pierce Fenner & Smith	2.841	
Loeb Rhoades & Co	1.684	
Grace Church Co	2.025	Barclay's Bank, D.C.O.
W. E. Hutton & Co	1.247	
Gertrude Benson	1.013	
Delhi International Oil Co.:		
John T. Macguire & Betty Macguire	2.470	
C. W. Murchison, Jr	4.230	
John D. Murchison	4.230	
Chieftain Develop. Co. Ltd	13.480	
Roycan & Co	1.580	
Cede & Co	11.460	
Colin Hochstin	2.380	
Daly & Co	1.390	
R. F. Lafferty & Co	1.260	
Merrill Lynch, Pierce, Fenner & Smith	2.440	
Rest & Co	3.300	
Spel & Co	2.860	
Diamond Shamrock Oil & Gas:		
Cede & Co	9.230	Stock Clearing Corp.
Charles Frederic & Co	4.180	Irving Trust Co.
Cuyler & Co	1.020	American Bank & Trust Co. of Pennsylvania.
Elm & Co	1.060	Pittsburgh National Bank.
Gunther & Co	2.460	Swiss Bank Corp.
Hirs & Harney	1.350	Wilmington Trust Co.
Lerche & Co	1.940	Bank of New York.
MAC & Co	1.570	Mellon National Bank & Trust.
Sears Fund & Co	1.860	First National Bank of Chicago.
Strake & Co	1.020	State Street Bank & Trust.
Welsh, A. A. & Co	2.330	Cleveland Trust Co.
El Paso Natural Gas Co.:		
Cede & Co	4.640	Merrill Lynch Pierce Fenner & Smith (3.45 percent); Reynolds Securities, Inc. (1.19 percent).
Webber & Co	3.090	First National City Bank.

OWNERSHIP—SUMMARY TABLE FOR QUESTION 3—Continued

Petroleum firm and stockholder	Percent stock owned	Representative of—
Exchange Oil & Gas Corp:		
Bing, Anna	5.760	
Bing, Peter S	6.180	
Bricker, John F	16.400	
Capital Investment	2.120	
Johnson, R.R	1.140	
Klingenstein, Joseph	1.980	
Lohman, Lewis	12.530	
Mayer, Mildred	1.000	
Oestreicher, Sylvan	2.000	
Reavis, C. Frank	2.000	
South Coast Corp	1.880	
Spanel, A.N	3.500	
Whipple, Warall	1.230	
Exxon Corp.:		
Bankers Trust Co	1.800	
Bank of New York	1.700	
Cede & Co	3.100	Stock Exchange central certificate service.
Chase Manhattan Bank	4.100	
Chemical Bank	1.200	
Exxon Corp.–Treas. Shares	1.200	
Exxon Thrift Fund	2.000	
First National Bank of Boston	1.600	
Manufacturers Hanover Trust Co	1.800	
Morgan Guaranty Tr. Co. of N.Y	2.400	
State Street Bank & Trust	1.000	
United States Trust Co	1.400	
Felmont Oil Corp.:		
Cede & Co	13.990	
Essex Royalty Corp	44.610	
Goldsmith, Horace W	3.510	
Lowitz, E. & Co	1.400	
Streicher, J. & Co	8.630	
Fletcher Oil & Refining Co.:		
Fletcher, Robert G	33.330	
Fletcher, Daniel S	33.330	
Fletcher, Wilfred D	33.330	
Forest Oil Corp.:		
Cyp & Co	1.035	Bank of California.
Metropolitan Life Ins. Co	2.020	
Ardmerk & Co	1.145	Madison Fund, Inc.
Cede & Co	7.538	Stock Clearing Corp.
Essfour	2.407	Keystone S–4 group.
Hare & Co	1.146	Bank of New York.
Lerche & Co	1.604	Bank of New York.
Searsfund & Co	1.590	Sears, Roebuck & Co.
Tahoe & Co	1.940	First National Bank of Nevada.
Dorn, Ruth H	2.017	
Dorn, Dale H	1.766	
Dorn, Dale F	1.346	
Dorn, Clayton Forster	.377	
Chisum, Clayton Dorn	.998	
Gill, Sharon D	1.374	
Dorn, John Forster	1.375	
Dorn, Richard B	2.441	
Dorn, Richard B., Executor	.369	
Dorn, John C	2.814	
Miller, William D	1.892	
Miller, Wendy D	2.079	
Suffecool, Roxanne M	2.065	
Miller, Jeffrey W	2.079	
Bird, Martha Dorn	2.390	
Grubb, Mrs. Dale Bird	1.334	
Lawson, Jay Bird	1.365	
Cox, Hanley Bird	1.442	
Dorn, Clayton G	1.769	
Dorn, Patricia B	1.060	
Dorn, Brian B	1.060	
Dorn, Clayton G., Trustee	.036	
Dorn, John C., Trustee	.787	
Do	.107	
Dorn, Joanne B., Custodian	.129	
Dorn, David F	1.790	
Dorn, Julieanne L	1.450	
Stewart, Brooks Dorn	1.017	
Dorn, John C., Trustee	.716	
Do	.128	
Dorn, Julieanne L., Custodian	.173	
Dorn, John C., Trustee	.716	
Dorn, John C	.128	
Dorn, Julieanne	.173	
Miller, Jill Dorn	1.252	

OWNERSHIP—SUMMARY TABLE FOR QUESTION 3—Continued

Petroleum firm and stockholder	Percent stock owned	Representative of—
Forest Oil Corp.—Continued		
Miller, William D., Trustee	1.548	
Do	1.141	
Miller, William D. & Dorn, Clayton G., Trustees	.434	
Miller, William D. & Dorn, Clayton, G., Succes. Trustee.	1.620	
General American Oil Company of Texas:		
Barnes, W. C., Higginbotham, F. C., and Goss, J. W., Trustees.	1.685	
Ardmerk & Co	7.123	Madison Fund, Inc.
Cede & Co	5.547	Stock Clearing Corp.
Cudd & Co	1.144	
Harvard & Co	1.028	
Meadows, Algur H	14.707	
Meadows Fdn., Inc	15.461	
Temple First Stock Co	2.751	
R. J. Thomas & Co	2.050	Republic National Bank of Dallas.
General Crude Oil Co.:		
Glenmede Trust Co	63.000	
Hamilton & Co	5.000	
Lerche & Co	1.000	
Stay & Co	2.000	
Robert A. Welch Foundation	4.000	
Getty Oil Co.:		
Cede & Co	2.526	
J. Paul Getty	21.802	
J. Paul Getty as Trustee	42.591	
Perc & Co	1.071	
Sior & Co	1.315	Bankers Trust Co.
Pitt & Co	1.223	
Gulf Oil Corp.		
Cede & Co	7.070	Stock Clearing Corp.
Cost & Co	4.630	Mellon Bank, N.A.
Richard King, Mellon Foundation	1.020	Wilmington Trust Co.
Lack & Lindsay	1.480	Do.
Mac & Co	6.160	Mellon Bank, N.A.
Paul Mellon	1.230	Wilmington Trust Co.
Scott & Co	5.250	Morgan Guaranty Trust Co.
Hamilton Brothers, Inc.:		
Hamilton, Frederic C	23.220	
Hamilton, Ferris F	23.220	
Jenney Oil Co., Inc	8.280	
Gates Rubber Co	4.000	
Perini Corp	2.420	
Robert M. Jenney	1.840	
Hunt Oil Co:		
Hunt, H. L	79.000	
Hunt, H.L. Jr. Trust Est	3.000	
Hunt, Lamar Trust Est	3.000	
Hunt, Margaret Trust Est	3.000	
Hunt, Nelson B. Trust Est	3.000	
Hunt, William H. Trust Est	3.000	
Hunt, Caroline Trust Est	3.000	
Dallas Comm. Chest Tr. Fd	3.000	
Husky Oil Ltd:		
Bankmont & Co	1.990	Bank of Montreal.
Bay & Co	1.050	Canadian Imperial Bank of Commerce.
Brant Investments Ltd	1.290	
Grator & Co	1.280	
Lake & Co	2.850	
Roycan & Co	5.460	Royal Bank of Canada, Montreal.
Roytor & Co. No. 1, A/C	1.530	Royal Bank of Canada, Toronto.
Caisse de Depot & Placement du Que	5.280	
Canadian Permanent Trust Co	1.770	
Canadian Pacific Investments Ltd	3.650	
Montreal Trust Co	1.190	
Alsta & Co	1.120	
Cudd & Co	1.970	
Nielson Enterprises, Inc	15.720	
Nielson, Oliver W	2.730	
Nielson, Glenn E	2.180	
N. V. Admin. Opgericht Door Heldring, Amsterdam	1.120	
Kerr-McGee Corp:		
Anderson Development Corp	3.170	
Anderson, Carl C. Sr	1.260	
Bark & Co	2.150	Massachusetts Investors Trust.
Cede & Co	5.340	Stock Clearing Corp.
Dean & Davis	1.190	Wilmington Trust Co.
Fidelity Registration Co. of Oklahoma City	1.330	Fidelity Bank, N. A.
Kane & Co	1.130	Chase Manhattan Bank.
Kerr Fdn., Inc	1.270	
Lehcor & Co	1.100	Lehman Corp.

OWNERSHIP—SUMMARY TABLE FOR QUESTION 3—Continued

Petroleum firm and stockholder	Percent stock owned	Representative of—
Kerr-McGee Corp.—Continued		
McGee, Dean A. Revoc. Trust	3.350	
Metropolitan Life Ins. Co	2.570	
Norton & Co	1.380	First National Bank of Boston.
Peak & Co	3.590	Massachusetts Investors Growth Stock Fund, Inc.
Saxon & Co	2.240	Rittenhouse fund.
Way & Co	1.370	T. Rowe price growth stock fund.
Lion Oil Co.: Oil Shale Corp	100.000	
Lone Star Gas Co.:		
Aitkin Annie L. C	2.100	
EBP & Co	2.300	First National Bank Dallas.
Edal & Co	1.400	National Shawmut Bank of Boston.
Equitable Life Assurance Soc., U.S	1.500	
Mac & Co	1.700	Mellon Bank North America.
Merrill, Lynch, Pierce, Fenner & Smith	2.700	
Noco	1.100	Northwest Pennsylvania Bank & Trust Co.
Univ. of Texas Permanent Univ. Fund	1.400	
R. J. Thomas & Co	3.000	Republic National Bank.
Thomas & Co	2.600	First National City Bank.
Louisiana Land & Exploration Co.:		
Amerada Hess Corp	5.390	
Atwell & Co	1.480	
Bark & Co	1.560	
Carson & Co	2.420	
Cede & Co	3.860	
Cudd & Co	1.450	
Peak & Co	1.040	
Pitt & Co	1.220	
Reing & Co	2.100	
Sabat & Co	1.200	
Schmidt & Co	1.860	
Sigler & Co	1.130	
Way & Co	1.110	
A. A. Welsh & Co.:	2.160	
(note) the following companies hold stock in Louisiana Land Offshore Exploration Co., Inc.		
Brown Bros. Harriman & Co	7.660	
Capital Investment of Hawaii, Inc	1.130	
Ceal & Co	1.230	
Egger & Co	1.340	
EMP & Co	1.070	
Goldman Sachs & Co	2.510	
Ince & Co	3.990	
Lehman Bros., Inc	4.450	
Leonard & Co	1.000	
Lewco Securities Corp	1.080	
Lowell & Co	2.150	
Matru & Co	1.330	
Merrill Lynch Pierce Fenner & Smith	2.760	
Nabank & Co	2.130	
N.C.C. & Co	4.140	
Pace & Co	1.330	
Pitt & Co	1.240	
Potts & Co	2.000	
Schmidt & Co	6.670	
Spencer Trask & Co., Inc	1.900	
McCulloch Oil Corp.:		
Cede & Co	27.400	Various broker firms.
McCulloch Corp	12.700	McCulloch is a wholly-owned subsidiary of Black & Decker Manufacturing Co.
Merrill Lynch Pierce Fenner & Smith	2.900	
Mutual Life Ins. Co. of N.Y	1.200	
Marathon Oil Co.:		
(No name listed)	1.400	
Whitelaw & Co	5.400	National City Bank of Cleveland.
Mesa Petroleum Co.:		
Clerks & Co	.920	
Lerche & Co	5.100	Bank of New York.
Mut. Life Ins. Co. of N.Y	1.600	
Pickens, T. B. Jr	1.300	
Atwell & Co	1.200	U.S. Trust Co. of New York.
Brown Bros. Harriman & Co	2.400	
Cudd & Co	2.500	Chase Manhattan Bank.
Dake & Co	2.300	First National Bank of Denver.
Goco	.930	State Street Bank & Trust Co.
Norton & Co	1.400	
Essfour	1.700	State Street Bank & Trust Co.
Firjer & Co	.800	First Jersey National Bank.
Kabo & Co	.800	Bankers Trust Co.
Norton & Co	1.300	
J. C. Orr & Co	4.900	Chemical Bank.
OTR	4.000	State teachers retirement board.

OWNERSHIP—SUMMARY TABLE FOR QUESTION 3—Continued

Petroleum firm and stockholder	Percent stock owned	Representative of—
Mesa Petroleun Co.—Continued		
Pitt & Co	1.000	Bankers Trust Co.
Saxon & Co	1.600	
Searsfund & Co	2.500	First National Bank of Chicago.
Tegge & Co	1.500	Morgan Guaranty Trust Co. of New York.
R. J. Thomas & Co	1.400	
Wonham Albert & Co	1.000	
Stawis & Co	1.600	Morgan Guaranty Trust Co. of New York.
Kane & Co	1.700	Chase Manhattan Bank, N.A.
Mobil Oil Corp:		
Pitt & Co	5.430	
Cede & Co	3.150	
Kane & Co	2.480	
Cudd & Co	1.600	
Mobil Oil Corp	1.430	
Carson & Co	1.150	
Trussal & Co	1.040	
Nabank & Co	1.000	
Monsanto Co.:		
Brown Bros. Harriman & Co	1.200	
Cudd & Co	1.700	
Douglass & Co	1.200	
Kane & Co	1.800	
Merrill Lynch Pierce Fenner & Smith	3.000	
Ronis & Co	1.000	
Trussal & Co	2.700	
Murphy Oil Corp:		
Bicher & Co	1.000	Morgan Guaranty Trust Co. of New York.
Box & Co	1.000	United Missouri Bank of Kansas City.
Brack & Co	5.000	First Trust Co., State of Pennsylvania.
Cede & Co	5.000	
Deming, Bertie M	4.500	
First National Bank of El Dorado	1.800	
Keller, Caroline M	1.000	
Keller, Christoph, Jr	1.000	
Merrill Lynch Pierce Fenner & Smith	1.000	
Murphy, C.H. Jr	6.000	
Murphy, C.H. Jr., Murphy, Bertie W., and Nolan, T.M	1.900	
Nolan, Theodosia M	1.000	
Nolan, William C	1.000	
Rest & Co	1.500	Fort Worth National Bank.
Salkeld & Co	1.000	Bankers Trust Co.
National Coop. Refinery Association:		
Farmers Union Central Exchange	29.260	Regional Co-op.
Farmland Industries, Inc	30.950	Do.
F.S. Services, Inc	19.460	Do.
Land O'Lakes, Inc	8.710	Do.
M.F.A. Oil Co	6.440	Do.
Midland Co-op., Inc	5.180	Do.
Occidental Petroleum Corp.:		
Hammer, Armand	[3] 1,073,144	
Cede & Co	[3] 14,751,745	The Depository Trust Co.
Merrill Lynch Pierce Fenner & Smith	[3] 853,921	
Ruch & Co	[3] 829,435	Swiss American Corp.
Settle & Co	[3] 1,410,179	Chase Manhattan Bank.
Panhandle Eastern Pipeline:		
J. C. Orr & Co	4.360	
Pace & Co	3.440	
Cudd & Co	3.330	
Cede & Co	2.890	
Hamill & Co	2.390	Panhandle Employees Stock Purchase Plan.
Ferro & Co	1.940	Fidelity Fund, Inc.
Lack & Lindsay	1.540	
Edal & Co	1.490	Puritan Fund, Inc.
OTR	1.490	State Teachers Retirement Board of Ohio.
Tegge & Co	1.500	
Anderson & Co	1.350	
Sigler & Co	1.350	
Gilmet & Co	1.240	Broad Street Investing Corp.
Sior & Co	1.040	College Retirement Equities.
Pennzoil Co.:		
Brown Bro. Harriman & Co	2.026	
Choctaw Corp	1.091	
First Nat'l Bank, Shreveport	1.290	
Goco	1.244	State Street Bank & Trust.
E. F. Hutton & Co., Inc	1.391	
Merrill Lynch, Pierce Fenner & Smith	3.118	
Sabat & Co	1.359	Savings Bank Trust Co. of New York City.
Stuart & Co	1.572	First National City Bank.

OWNERSHIP—SUMMARY TABLE FOR QUESTION 3—Continued

Petroleum firm and stockholder	Percent stock owned	Representative of—
Phillips Petroleum Co.:		
Anderson & Co	1.046	
Atwell & Co	1.349	
Bannar & Co	4.419	Phillips Petroleum Co. Thrift Plan.
Carban & Co	2.568	Do.
Kane & Co	1.525	
Merrill Lynch, Pierce Fenner & Smith	1.575	
Sior & Co	1.360	
Powerine Oil Co.:		
Rothschild, Harry S	9.870	
Kebow, Josephine E	9.870	
Rothschild, Harry R	40.130	
Rothschild, Peter B	40.130	
Rock Island Refinery Corp.:		
Allen, Madelon Jo	2.000	
Allen, Platt L	2.000	
Alspaugh, Ann	5.050	
Alspaugh, Gay Simmons	3.190	
Evans, Margery W	6.600	
First Nat'l Bank in Wichita	2.500	
Kincannon, Hazel S	2.000	
Kincannon, Layton C	1.500	
Kincannon, Louis E	2.500	
Martin, George C	4.000	
Ralstin, Betty Perdew	2.500	
Simmons, M. L	25.000	
Warmann, Richard S., Winkler, Carl F. & Merc. Tr. Co., N.A.	2.000	
Winkler, Ann	2.000	
Winkler, Clara S	9.200	
Winkler, Doris Ann	6.600	
Winkler, Elmer L	10.800	
Shell Oil Co.:		
Broekman's Administratie Kanor, NV	1.090	
Cede & Co	1.330	Various banks and brokerage houses.
Royal Dutch Petroleum Co	41.760	
Shell Transport & Trading Co., Ltd	27.800	
Sigler & Co	4.870	Manufacturers Hanover Trust.
Skelly Oil Co.:		
Carolyn S. Burford	1.13	
Cede & Co	1.64	
First & Co	3.32	Skelly savings and investment plan.
Getty Oil Co	3.56	
Mission Corp [7]	72.53	
Southland Oil Co.:		
Brooks, Doris M	3.100	
C.F.W. Construction Co	3.900	
Else, Charles W	23.140	
Firstco, Inc	2.360	
Hearin, Robert M	35.070	
Hearin, Robert M., Jr	5.810	
Lamar Life Ins. Co	2.580	
Lockhart, Paul A., Jr	3.100	
McRee, Annie Laurie	5.810	
National Investment Co	2.420	
Porter, J. C	1.550	
Story, F. A	1.550	
Southwestern Oil & Refining Co.:		
Nelson, Virginia S	8.860	
Seltzer, S. S., Jr	17.130	
Standard Oil of California: Yerba & Co	6.300	Crocker National Bank, San Francisco, Calif.
Standard Oil of Indiana:		
Amer. Trad. & Prod. Corp	2.980	
Cede & Co	2.300	Stock Clearing Corp.
Finat & Co	7.580	First National Bank, Chicago Trust under Standard Oil of Indiana, Employees Savings Plan.
Gepco-Oneco-Quinco-Treco	1.340	Prudential Insurance Co. of America.
Kane & Co	1.680	Chase Manhattan Bank.
Standard Oil of Ohio:		
British Petroleum (Overzee) N.V	24.710	
Dean & Davis	1.280	Pension trust account.
Kane & Co	1.650	Pensions and other employee benefits.
Pitt & Co	1.300	Tax qualified employee benefit trusts.
Sheldon & Co	1.100	
Whitelaw & Co	3.930	SOHIO Employees Investment Plan and others.
Sun Oil Co.:		
Glenmede Trust Co	20.076	Pew Memorial Trust.
Do	18.565	
Walter C. Pew	2.229	

OWNERSHIP—SUMMARY TABLE FOR QUESTION 3—Continued

Petroleum firm and stockholder	Percent stock owned	Representative of—
Tenneco, Inc.:		
Cede & Co	4.720	New York Stock Exchange.
Thrift & Co	4.030	Company Profit Sharing Plan.
Stone & Webster, Inc	1.540	Firm and customers.
Merrill Lynch, Pierce, Fenner & Smith, Inc	1.390	Do.
Tesoro Petroleum Corp.:		
Spitzer, Arther	2.500	
West, Robert V., Jr	1.340	
Texaco, Inc.: Superior Oil Co	1.330	
Texas City Refining, Inc.:		
Agway, Inc	66.670	
Southern States Cooperative	33.330	
Texas Oil & Gas Corp.:		
Atwell & Co	1.070	
Beecherl, Louis A., Jr	3.670	
Cede & Co	5.060	
Cummings & Co	1.500	
Dake & Co	2.310	
Ford Foundation	2.650	
Heil & Co	3.810	
Meth & Co	1.620	
Phicar & Co	1.730	
Pitt & Co	5.520	
Reing & Co	5.800	
Schmidt & Co	7.880	
Sigler & Co	1.580	
Thomas & Co	1.210	
U.S. Fidelity & Guar. Tr. Co	1.360	
Whiting & Co	1.310	
Williams & Co	1.150	
Total Leonard, Inc.: Total Petroleum (North American) Ltd.	100.000	
Union Oil of California:		
Cede & Co	8.400	Various brokers.
King & Co	1.500	First National City Bank (over 70 accounts).
Lerche & Co	1.100	Bank of New York.
Merrill Lynch, Pierce, Fenner & Smith	4.300	
Fivco, Forco, Gepco, Oneco, Quinco, Treco	2.500	Prudential Insurance Co.
Security Pacific Nat'l Bank	5.600	Union Oil Employees Incentive and Profit Sharing Plan.
Union Texas Petroleum:		
Cudd & Co	2.490	Chase Manhattan Bank.
Douglass & Co	2.850	Morgan Guaranty Trust Co. of New York.
Edal & Co	1.440	National Shawmut Bank of Boston.
Gunther & Co	1.050	Swiss Bank Corp.
Harwood & Co	1.300	State Street Bank & Trust Co.
Ince & Co	1.370	Morgan Guaranty Trust Co. of New York.
Kane & Co	1.290	Chase Manhattan Bank.
Loeb Rhoades & Co	1.500	
Merrill Lynch, Pierce, Fenner & Smith	1.830	
Pitt & Co	1.160	Bankers Trust Co.
Sior & Co	1.980	Do.
Lazard Freres & Co	8.720	

[1] Of class A common stock.
[2] Of class B common stock.
[3] Shares.
[4] Of Burmah Oil Inc.
[5] Of Burmah Oil and Gas Co.
[6] 105 names listed as holders of beneficial interest.
[7] Getty Oil Co. owns 88.96 percent of Mission Corp. Thus Getty owns 70.01 percent of Skelly in total. See Iannone, op. cit. pp. 189–190.

Appendix E

Debt Holders

DEBT HOLDERS

Summary table for question 4: 10 largest debt holders [1, 2]

[In thousands of dollars]

Petroleum firm and debt holder	
Amerada Hess Corp.:	
Metropolitan Life Insurance Co	241, 344
First National City Bank	50, 850
Chase Manhattan Bank	45, 850
Chemical Bank	43, 000
Equitable Life Assurance Society of the United States	23, 750
Morgan Guaranty Trust Co. of New York	20, 000
General Electric Co. I.G.E. Export Division	12, 387
Chicago Bridge & Iron Co	2, 582
Bay Hall Trust Ltd	2, 323
First National Bank of Chicago	1, 765
American Petrofina, Inc.:	
European-American Banking Corp	22, 000
National Bank of Detroit	10, 000
First National Bank—Dallas, Trustee	4, 598
First National Bank—Dallas, Trustee	5, 517
Southwestern Life Insurance	3, 130
Chase Manhattan Bank	12, 043
American National Insurance Co	1, 546
Dry Dock Savings Bank	1, 380
Massachusetts Mutual Life Insurance Co	1, 338
Borg-Warner Corp	6, 264
APCO Oil Corp.:	
Metropolitan Life Insurance Co	2, 750
Herman & Walker Oil Co	2, 000
Loeb, Rhoades & Co	1, 410
Hirs & Harney	1, 000
Ardmerk & Co	942
Maslif One & Co	900
Conac & Co	860
Sunmont & Co	850
Merril Lynch, Pierce, Fenner & Smith	719
Cudd & Co	526
Ashland Oil, Inc.:	
Chase Manhattan Bank, N.A	42, 000
Cudd & Co	11, 310
Dresdner Bank of Germany	10, 345
Northern Petrochemical Co	6, 667
State of Ohio, Treasurer, Custodian	5, 750
Minnret & Co	5, 070
Ronis & Co	5, 000
Teachers Retirement System of Texas	5, 000
State of New York Comptroller Trust Common Retirement Fund	3, 885
Carothers & Clark	3, 750

[1] Beacon Oil Co., Exchange Oil and Gas Corp., General Crude Oil Co., Rock Island Refinery Corp. and Southwestern Oil and Refining Co. responded to question 4 by reporting they had no debtholders.

[2] Diamond Shamrock Oil and Gas Co., Felmont Oil Corp., Husky Oil Ltd., Panhandle Eastern Pipeline Co., Powerine Oil Co. and Tenneco, Inc. all appear to have reported the amounts of debts in dollars rather than thousands of dollars. The figures in this table for these companies represent our converting their reported figures to thousands of dollars. Had this not been done, their debts would have been in billions of dollars rather than the millions reported here.

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders[1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
Atlantic Richfield Co.:	
Metropolitan Life Insurance Co	53, 542
Morgan Guaranty Trust Co. of New York	32, 105
State of California Public Employee Retirement System	29, 155
Chase Manhattan Bank, N.A	28, 409
State of California Teachers Retirement System	20, 460
New York Life Insurance Co	17, 092
Amsterdam-Rotterdam Bank, N.V	16, 892
State of New York Comptroller Trust Common Retirement Fund	14, 751
Commonwealth of Pennsylvania School Employees Retirement Fund	14, 425
Aetna Life Insurance Co	10, 634
Belco Petroleum Corp.:	
Aetna Life Insurance Co	15, 000
Asso. Tech. de L'Imp. Charboniere	4, 331
Arthur B. Belfer Production Pmt	5, 135
A.I.D	266
Ford Motor Credit Co	294
GATX Leasing Corp	141
Government of Israel	9, 114
Morgan Guaranty Trust Co. of New York	3, 000
Chase Manhattan Bank (For. Source)	5, 000
El Paso National Bank	1, 046
Burmah Oil, Inc.:	
Natural Gas Pipeline Co. of America	100, 000
Morgan Guaranty Trust Co. of New York	12, 919
Transcontinental Gas Pipeline Corp	1, 608
Union Trust Co	91
White, John J	46
Murphy, Hunter J	92
Burmah Oil & Gas Co.:	
Equitable Life Assurance Society	9, 000
Metropolitan Life Insurance Co	4, 500
Bank of America Leasing Department	6, 044
James White Oil Co	320
Perley, J. J. and A. W	100
Nickell, W. H	88
Security Pacific National Bank	78
Conroy, Jack	50
McVay, V. L	50
Parker, Joseph L	50
Cities Service Co.:	
Metropolitan Life Insurance Co	49, 001
Peny & Co	34, 050
Parrish Of Calcasieu Ind. Dev. Bd	21, 000
Cudd & Co	12, 755
State of Illinois Teachers Retirement System	10, 000
Colorado Public Employees Retirement Association	8, 700
First City National Bank of Houston	7, 905
State of Florida Treasurer	7, 000
OTR	6, 100
Indiana State Teachers Retirement Fund	5, 700

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders [1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
Clark Oil and Refining:	
First National Bank of Chicago	16, 090
Massachusetts Mutual Life Insurance Co	10, 000
New England Mutual Life Insurance Co	7, 500
Aetna Casualty & Surety & Aetna Life Insurance Co	7, 500
Prudential Insurance Co. of America	341
National Life Insurance Co	224
Jefferson Standard Life Insurance Co	230
Teachers Insurance & Annuity Association of America	251
Northwestern National Life Insurance Co	331
Lutheran Mutual Life Insurance Co	175
Clinton Oil Co.:	
Reserve Life Insurance Co	831
First National City Bank of Houston	5, 696
Rothschild Intercontinental Bank, Ltd	1, 063
Commonwealth Oil Refining Co.:	
First National City Bank	56, 370
Industrial Leasing Corp	20, 540
New York Life Insurance Co	18, 500
Chase Manhattan Bank	17, 100
Chemical Bank	11, 700
First National Bank of Boston	11, 700
Banco Credito y Ahorro Ponceno	4, 000
Banco de Ponce	4, 000
Banco Popular de Puerto Rico	4, 000
Riggs National Bank	1, 750
Continental Oil Co.:	
Chase Manhattan Bank	50, 516
First National City Bank	43, 443
New York State Employees Retirement Fund	30, 975
Morgan Guaranty Trust Co. of New York	28, 570
Bankers Trust Co	25, 516
Mellon Bank	21, 123
Astilleros Espanola S.A	21, 152
First National City Bank—Zurich	16, 923
Clay & Co	16, 099
State of California Teachers Retirement System	10, 458
Crown Central Petroleum Corp.:	
Equitable Life Assurance Society of the United States	7, 000
Aetna Life Insurance Co	4, 500
Copley & Co	4, 500
Mutual Life Insurance Co. of New York	3, 000
New England Mutual Life Insurance Co	3, 000
Penn Mutual Life Insurance Co	3, 000
Connecticut General Life Insurance Co	3, 469
Jefferson Standard Life Insurance Co	1, 982
Union Trust Co. of Maryland	1, 510
Interstate Life & Accident Insurance Co	1, 453
Delhi International Oil Co.: Texas Pacific Oil Co., Inc	4, 100
Diamond Shamrock Oil & Gas:	
Commonwealth of Pennsylvania State Employees Retirement Fund	6, 500
State of New York Comptroller Trust Common Retirement Fund	5, 000
Commonwealth of Pennsylvania School Employees Retirement Fund	5, 000
Stawis & Co	4, 000
Carothers & Clark	3, 300
Cudd & Co	3, 185
Ohio Public Employees Retirement Board	3, 000
Stapen & Co	2, 800
Hemfar & Co	2, 400
Sabat & Co	2, 035

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders [1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
El Paso Natural Gas Co.:	
Metropolitan Life Insurance Co	283, 298
Equitable Life Assurance Society of the United States	134, 627
John Hancock Mutual Life Insurance Co	62, 994
Travelers Insurance Co	59, 247
New York Life Insurance Co	54, 169
Aetna Life Insurance Co	51, 371
Northwestern Mutual Life Insurance Co	41, 916
Mutual Life Insurance Co of New York	38, 982
Connecticut General Life Insurance Co	26, 452
Sun Life Assurance Co. of Canada	21, 603
Exxon Corp.:	
State of New York Comptroller Trust Common Retirement Fund	29, 100
Metropolitan Life Insurance Co	23, 678
TRAL & Co	20, C00
John Hancock Mutual Life Insurance Co	17, 500
State of Florida Treasurer	16, 000
Gerlach & Co	15, 414
Salkeld & Co	15, 587
South Carolina Retirement System Trust	13, 899
Ohio Public Employees Retirement Board	13, 250
Mutual Benefit Life Insurance Co	10, 500
Farmland Industries, Inc.:	
Wichita Bank for Cooperatives	72, 474
First National Bank of Chicago	1, 467
Chase Manhattan Bank	6, 617
Commerce Bank	5, 706
Bankers Trust Co	4, 333
First National City Bank	1, 733
Bank of the Southwest	1, 216
Omaha Bank for Cooperatives	1, 000
St. Louis Bank for Cooperatives	650
Underwood, Wilson, Sutton, Heare & Berry	1, 514
Felmont Oil Corp.: New York Job Development Authority	1, 265
Fletcher Oil & Refining Co.: Northwestern National Life Insurance Co	428
Forest Oil Corp.:	
Chase Manhattan Bank, N.A	19,063
Mutual Life Insurance Co., of New York	15,753
Northwestern Mutual Life Insurance Co	12,864
Metropolitan Life Insurance Co	6,710
Reing & Co	2,089
Copley & Co	1,710
Federal Life & Casualty Co	1,265
Peoples Home Life Insurance Co	1,260
Tiller & Co	925
Lehman Brothers, Inc	809
General American Oil Co. of Texas:	
Transcontinental Gas Pipeline Corp	1,320
Tennessee Gas Pipeline Co	13,474
Compagnia Petrolifera Italiana	500
Getty Oil Co.:	
Chase Manhattan Bank, Trustee	13,591
Metropolitan Life Insurance Co	24,907
First Pennsylvania Banking & Trust Co	26
Bank of America N.T. & S.A	5,263
Universal Oil Products Co	986
John or Joan Savage	622
Thomas E. Prather	83
Robert E. Prather	51
William C. Prather	45

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders [1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
Getty Oil Co.—Continued	
Leroy B. & Darlene Catham	37
Mildred M. Rutledge	135
Paul F. Rutledge	1,215
Gulf Oil Corp.:	
Metropolitan Life Insurance Co	161,354
Mediobanca S.P.A	61,500
John Hancock Life Insurance Co	39,916
Comptroller of the State of New York in Trust for Common Retirement Fund	33,800
Chase Manhattan Bank, N.A	21,500
State of California Public Employees Retirement System	11,104
State of California Teachers Retirement System	9,500
Bank of Tokyo	20,000
Prudential Insurance Co. of America	15,750
Commonwealth of Penna., School Employees Retirement Fund	11,000
Commonwealth of Penna., (other retirement funds)	4,700
Anlagebank Zuerich	13,540
Hamilton Brothers, Inc.:	
Bank of Montreal, Calgary	11,101
Bank of Montreal, London	2,250
Michigan-Wisconsin Pipeline Co	1,243
Hunt Oil Co.:	
Michigan-Wisconsin Pipeline Co	6,885
Mutual Life Insurance Co. of New York	3,900
North American Life & Casualty	100
Intratex Gas Co	693
SACROC Unit (c/o Chevron Oil Co.)	169
First Federal Savings & Loan Association	23
Keys, W. H	9
Husky Oil Ltd.:	
Continental Illinois National Bank & Trust of Chicago	10,000
Herrin/Rickman Trust	3,159
New York Life Insurance Co	2,500
Bank of New York	2,265
Herrin/Rickman Trust (art. IIIB–3)	1,608
Federal Life & Casualty Co	1,000
Ince & Co	3,375
O'Neill & Co	977
Pershing & Co., Inc	696
Smith & Co	700
Kerr-McGee Corp.:	
Prudential Insurance Co. of America	60,000
Prudential Insurance Co. of America	6,300
First National Bank of Chicago	20,000
New York Life Insurance Co	8,725
First National City Bank, Trustee	6,828
First National City Bank, Trustee	6,544
Emhart Corp	5,745
John Hancock Mutual Life Insurance Co	2,181
Bank of the Southwest	1,938
Boardman, Fred J	492
Witco Chemical Co., Kendall Refining Division	174
Lion Oil Co.:	
Equitable Life Assurance Society of the United States	15,000
First National Bank of St. Paul	3,000
Lone Star Gas Co.:	
Prudential Insurance Co. of America	37,400
Various commercial banks	70,000

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders[1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
Louisiana Land and Exploration Co.:	
Texas Eastern Transmission Corp	47, 782
Bank of New York	5, 000
South Carolina Retirement System	4, 750
General Services Administration	4, 467
Whitney National Bank	3, 000
Minnesota State of Investment	2, 850
State of Michigan, Treasurer	2, 613
State of Florida, Board of Administration	2, 375
First National Bank of Commerce	2, 300
McCulloch Oil Corp.:	
Merrill Lynch, Pierce, Fenner, & Smith	2, 395
Sabat & Co	3, 000
(The balance of the debtholders' names are too illegible to read.)	
Marathon Oil Co.:	
Indus. Comm. of Ohio, c/o State Treasurer	12, 892
State of New York Comptroller Trust for Common Retirement Fund	10, 000
State Treasurer of Florida	8, 355
Cudd & Co	6, 115
Ronis & Co	5, 000
Carothers & Clark	4, 020
Public Employees Retirement Board of Ohio	3, 000
Eagle Co	2, 885
Portefield & Co	2, 500
EMP & Co	2, 050
Mesa Petroleum Co.:	
Riverside Charitable Association	42,750
Natural Gas Pipeline Co	40,000
Mutual Life Insurance Co	7,961
Northwestern Mutual Life Insurance Co	5,365
Teachers Insurance and Annuity Association of America	5,847
Massachusetts Mutual Life Insurance	1,442
Texas Eastern Transmission Corp	6,400
Mellon National Bank	5,838
Transcontinental Gas Pipeline	5,000
First City National Bank of Houston	2,750
Mobil Oil Corp.:	
Metropolitan Life Insurance Co	264,577
First National City Bank	96,034
Societe Generale	29,000
Pennsylvania School Employees Retirement Fund	23,470
Harris Trust & Savings Bank	21,015
State of California State Employees Retirement System	20,000
Instituto per lo sviluppo eco. dell Italia Meridinale	17,000
Sasebo Heavy Industries	16,661
Banque Nationale de Paris	12,000
S. Carolina Retirement System	11,700
Monsanto Co.:	
Metropolitan Life Insurance Co	86,000
Do	60,000
Do	50,000
New York Life Insurance Co	20,000
Peny & Co	6,900
Northwestern Mutual Life Insurance Co	5,000
(Name too illegible to be read)	4,500
Ronald Williams	4,600

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders[1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
Monsanto Co.—Contimued	
State of Ohio, Treasurer	4,000
Reing & Co	3,750
Cudd & Co	3,325
Kommerzbank A. G. Dusseldorf, Germany	11,259
Murphy Oil Corp.:	
Equitable Life Assurance Society of the United States	29,000
Union Bank of Switzerland	17,656
Mitsubishi Bank Ltd	15,000
Export-Import Bank of the United States	19,017
First National Bank of Chicago	18,956
Mercantile Bank of Canada	16,869
City of Waldo, Arkansas	2,785
Laurence Eustis Mortgage Corp	3,823
National Westminister Bank, Ltd	4,692
Royal Bank of Canada	3,920
National Cooperative Refinery Association:	
Wichita Bank for Cooperatives	1,406
Mellon Bank	562
Occidental Petroleum Corp.:	
Aetna Life Insurance Co	40,200
John Hancock Mutual Life Insurance Co	31,150
Mutual Life Insurance Co. of New York	29,100
New York Life Insurance Co	26,480
Nissho-Iwai Co., Ltd	25,000
First National City Bank	18,618
Equitable Life Assurance Society of the United States	17,033
Connecticut General Life Insurance Co	20,852
Teachers Insurance & Annuity Association of America	15,000
Chase Manhattan Bank, N.A	11,416
Panhandle Eastern Pipeline:	
New York Life Insurnace Co	13,000
Commonwealth of Pennsylvania School Employees Retirement Fund	13,850
Peny & Co	4,800
Teachers Retirement System of Illinois	3,000
Sabat & Co	4,815
Aetna Life Insurance Co	2,600
Licova & Co	2,592
Pennzoil Co.:	
Sabat & Co	12,835
Maslif One & Co	3,355
Harvard & Co	3,500
Rommel & Co	3,324
Merrill Lynch, Pierce, Fenner, & Smith	4,421
Mahl & Co	3,000
Major & Co	2,726
Conac & Co	2,974
Mutual Benefit Life Insurance Co	2,617
Lincoln National Life Insurance Co	2,500
Phillips Petroleum Co.:	
Metropolitan Life Insurance Co	87,932
First National City Bank	78,153
State of California Retirement System	54,500
Prudential Insurance Co. of America	43,491
Chase Manhattan Bank	33,932
Peny & Co	32,200

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders[1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
Phillips Pctroleum Co.—Continued	
New York Life Insurance Co	25, 960
Getty Oil Co	24, 000
Continental Illinois National Bank	19, 576
Export-Import Bank of the United States	14, 946
Powerine Oil Co.:	
Bank of America	8, 200
Rothschild Oil Co	1, 000
Shell Oil Co.:	
State of California Teachers Retirement System	16, 448
State of California Employees Retirement System	15, 295
Orrin Henry & Co	14, 644
Peny & Co	29, 367
Ronis & Co	9, 385
State of California Teachers Retirement System	9, 338
Thoma & Co	9, 000
New York Life Insurance Co	8, 667
Natural Gas Pipeline Co	39, 685
Alberta & Southern Gas Co	11, 454
Hermann Hospital Estate	16, 750
Skelly Oil Co. (Getty):	
Continental Illinois National Bank & Trust, Chicago	75,920
Morgan Guaranty Trust Co. of New York	25,000
Northwest Mutual Life Insurance Co	1,595
Metropolitan Life Insurance Co	1,498
Reing & Co	250
Central Life Assurance Co	157
Summit Lumber Co	945
Small Business Administration	2,543
First National Bank in Dallas	1,582
Allen Development Association	310
Sabine Development Association	310
Southland Oil Co.:	
Leon Hess	5, 000
Whitney National Bank, First National Bank & Chemical Bank	14, 150
Standard Oil of California:	
Societe Nationale de Credit a L'Industrie	83, 490
State of California Teachers Retirement System	29, 873
State of New York Comptroller Trust Common Retirement Fund	46, 200
Peny & Co	28, 025
Caisse Gen. D'Epargne et Retraite	22, 110
Bank of International Settlements, Basle, Switzerland	21, 500
Oceanic Contractors, Inc	20, 000
Mediobanca, S.p.A	15, 806
State of California Retirement System	41, 073
Standard Oil of Indiana:	
Sumitomo Bank, Ltd., Tokyo	40, 500
Mitsubishi Bank, Ltd., Tokyo	30, 000
Societe Nationale de Credit a L'Industrie Bank	26, 715
Claymont Investing Co	25, 278
Metropolitan Life Insurance Co	24, 545
Peny & Co	17, 050
State of Georgia Teachers Association	14, 799
State of New York Comptroller Trust Common Retirement Fund	14, 500
C. A. England & Co	12, 673
Broward, Williams, State Treasurer, Florida	11, 661
Standard Oil of Ohio:	
Mathiason Tanker Industries	33, 500
Morgan Guaranty Trust Co. of New York	26, 511

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders [1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
Standard Oil of Ohio—Continued	
First National City Bank	16, 957
Chase Manhattan Bank	15, 302
State of Ohio (Treasurer)	14, 700
State of Florida (Treasurer)	13, 500
Chemical Bank	12, 120
First National Bank of Chicago	11, 230
United States Trust Co	11, 033
Oswego Tanker Corp	9, 000
Sun Oil Co.:	
Chase Manhattan Bank	14, 286
Metropolitan Life Insurance Co	13, 178
Commonwealth of Pennsylvania School Employees Retirement Fund	11, 000
General Electric Pension Trust	10, 002
Trunkline Gas Co	9, 424
Commonwealth of Pennsylvania Employees Retirement Fund	7, 000
Peny & Co	6, 500
State of Florida, Treasurer	6, 000
Fidelity Union Trust Co	5, 745
State of Michigan, Treasurer	5, 632
Tenneco, Inc.:	
Prudential Life Insurance Co	116, 473
Metropolitan Life Insurance Co	92, 363
John Hancock Mutual Life Insurance Co	59, 152
Equitable Life Assurance Society of the United States	48, 240
First National City Bank	36, 747
Investors Diversified Services	29, 049
Aetna Life Insurance Co	28, 965
Teachers Insurance & Annuity Association of America	20, 000
Bankers Trust Co	19, 151
Connecticut General Life Insurance Co	17, 293
Tesoro Petroleum Corp.:	
Hax & Co	2, 000
E. F. Hutton & Co	1, 350
Olas & Co	1, 038
Hap & Co	1, 000
Merrill Lynch, Pierce, Fenner & Smith	944
Abraham & Co., Inc	924
Janney Montgomery Scott, Inc	754
Quadist & Co	600
Janney Montgomery Scott, Inc	567
Business Capital Corp	525
Texaco, Inc.:	
Metropolitan Life Insurance Co	263, 551
Comptroller of the State of New York	45, 309
Bankers Trust Co	27, 050
State of California (Treasurer)	25, 543
Industrial Bank of Japan, Ltd	25, 000
Travelers Insurance Co	21, 875
South Carolina, Treasurer	20, 400
First National City Bank	18, 691
United States Trust Co. of New York	16, 780
Public Employees Retirement of Ohio	13, 848
Texas City Refining, Inc.:	
Mutual Life Insurance Co. of New York	8, 760
First National Bank of Memphis and American National Bank of Mobile	5, 055

DEBT HOLDERS—Continued

Summary table for question 4:10 largest debt holders[1, 2]—Continued

[In thousands of dollars]

Petroleum firm and debt holder	
Texas Oil & Gas Corp.:	
Commonwealth of Pennsylvania School Employee Retirement Fund	6,250
Do	6,000
State of Florida Treasurer	5,500
Carothers & Clark	3,000
CBF & Co	2,500
American National Insurance Co	2,000
Jefferson Standard Life Insurance Co	2,000
F. J. Haffener & Co	1,316
Heil & Co	1,316
King & Co	1,213
Total Leonard, Inc.:	
Aetna Life Insurance Co	1,600
Connecticut Mutual Life Insurance Co	800
French-American Bank Corp	3,000
J. A. Citrins Sons Co	5,500
Michigan National Bank	6,946
Lincoln National Life Insurance Co	3,227
First Chicago Leasing Corp	5,435
First Chicago Leasing Corp	2,845
Union Oil of California:	
Metropolitan Life Insurance Co	36,253
Peny & Co	25,162
John Hancock Mutual Insurance Co	13,965
State of New York Comptroller Trust Common Retirement Fund	8,800
Cudd & Co	6,621
State of Florida Treasurer	6,400
State of California Public Employees Retirement System	5,500
New York Life Insurance Co	5,500
State of Ohio, Industrial Commission	5,300
Atwell & Co	5,063
Union Texas Petroleum:	
Peny & Co	26,550
Cudd & Co	13,729
State of California Employees Retirement System	10,975
State of California Teachers Retirement System	7,800
Ohio Industrial Commission	6,400
Kane & Co	5,400
Libmutco	5,000
Pennsylvania School Employees Retirement Fund	5,000
State of New York Comptroller Trust Common Retirement Fund	5,000
State of Florida Treasurer	4,300

Appendix F

National Sales of Gasoline, No. 2 Fuel Oil, Residual Fuel Oil, Jet Fuel, and Diesel Fuel, Reported Branded and Unbranded Sales by Company, 1964–73

(Original Data Also on State Basis)

U.S. TOTAL SALES FOR: APCO OIL CORP.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	326	0*	0*	0*
1965	320	0*	0*	0*
1966	329	0*	0*	0*
1967	336	0*	0*	0*
1968	374	6*	20	0
1969	388	5*	20	0
1970	427	6*	20	3
1971	418	6*	18	2
1972	460	428	31	1
1973	444	429	15	1

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	64	4*	13*	26*
1973	34*	3*	3*	6*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	1	0	0	1
1969	3	0	0	3
1970	4	0	0	4
1971	5	0	0	5
1972	2	0	0	2
1973	4	3	0	1

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	13	0	13	0

1965	13	0	13	0
1966	12	0	12	0
1967	12	0	12	0
1968	8	0	8	0
1969	12	0	12	0
1970	9	0	9	0
1971	8	0	8	0
1972	7	0	7	0
1973	5	0	3	2

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	41	9*	1*	24*
1973	34*	11	1	22

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL AND #2 FUEL OIL

1964	26	0*	0*	0*
1965	28	0*	0*	0*
1966	27	0*	0*	0*
1967	24	0*	0*	0*
1968	27	0*	0*	0*
1969	27	0*	0*	0*
1970	34	0*	0*	0*
1971	39	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: AMERICAN PETROFINA, INC.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	647	504	150	0
1965	626	500	126	0
1966	629	498	131	0
1967	683	548	136	0
1968	711	609	102	0
1969	773	675	98	0
1970	935	815	120	0
1971	1012	893	119	0
1972	1036	916	119	0
1973	1166	1036	130	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	37	11	27	0
1965	49	12	38	0
1966	83	14	68	0
1967	76	16	60	0
1968	77	22	55	0
1969	77	25	51	0
1970	108	36	60	12
1971	98	58	26	14
1972	91	51	36	4
1973	242	130	112	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	20	0	0	20
1965	20	0	0	20
1966	12	0	0	12
1967	8	0	0	8
1968	10	0	0	10
1969	14	0	0	14
1970	27	0	0	27
1971	33	0	0	33
1972	38	0	0	38
1973	98	0	0	98

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	57	0	0	57

1965	32	0	0	32
1966	48	0	0	48
1967	80	0	0	80
1968	72	0	0	72
1969	69	0	0	69
1970	48	0	0	48
1971	53	0	0	53
1972	21	0	0	21
1973	30	0	0	30

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	76	16	23	37
1965	63	17	17	29
1966	64	21	15	29
1967	91	27	29	35
1968	127	35	67	25
1969	139	43	69	27
1970	161	54	82	26
1971	172	73	76	22
1972	185	92	60	32
1973	185	118	38	29

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: BEACON OIL COMPANY

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	77	0*	0*	0*
1965	82	0*	0*	0*
1966	86	0*	0*	0*
1967	93	0*	0*	0*
1968	103	0*	0*	0*
1969	113	0*	0*	0*
1970	122	0*	0*	0*
1971	140	0*	0*	0*
1972	215	0*	0*	0*
1973	209	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	26	0	0	26
1965	26	0	0	26
1966	27	0	0	27
1967	24	0	0	24
1968	24	0	0	24
1969	24	0	0	24
1970	28	0	0	28
1971	21	0	0	21
1972	22	0	0	22
1973	24	0	0	24

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	19	0	0	19
1965	16	0	0	16
1966	17	0	0	17
1967	23	0	0	23
1968	23	0	0	23
1969	19	0	0	19
1970	14	0	0	14
1971	12	0	0	12
1972	10	0	0	10
1973	9	0	0	9

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	36	0*	0*	0*

1965	54	0*	0*	0*
1966	51	0*	0*	0*
1967	49	0*	0*	0*
1968	58	0*	0*	0*
1969	53	0*	0*	0*
1970	53	0*	0*	0*
1971	52	0*	0*	0*
1972	56	0*	0*	0*
1973	54	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: BELCO PETROLEUM CORPORATION

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: BURMAH OIL DEVELOPMENT, INC.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	337	0	336	1
1972	324	0	323	1
1973	154	0	153	1

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	85	0	0	85
1972	91	0	0	91
1973	101	0	3	98

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	173	0	0	173
1972	158	0	0	158
1973	149	0	0	149

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	1	0	0	1
1972	2	0	0	2
1973	2	0	0	2

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	50	0	50	0
1972	39	0	39	0
1973	22	0	22	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

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U.S. TOTAL SALES FOR: CITIES SERVICE COMPANY

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	1968	0*	197	275
1965	1916	1380	192	268
1966	1845	1255	166	258
1967	1699	1170	0*	0*
1968	1649	1108	0*	0*
1969	1847	1085	0*	0*
1970	2238	1158	0*	0*
1971	2299	1298	0*	0*
1972	2404	1444	0*	0*
1973	2457	1516	660*	161*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	729	415	168	117
1965	704	436	141	106
1966	680	428	116	109
1967	649	417	110	97
1968	636	394	127	105
1969	680	404	133	110
1970	867	468	0*	0*
1971	760	476	0*	0*
1972	722	505	0*	0*
1973	689	493	124*	70*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	186	0	85	9
1965	140	0	72	6
1966	126	1	57	6
1967	121	4	42	20
1968	85	4	52	12
1969	97	3	48	8
1970	123	3*	59*	8*
1971	103	3	38	11
1972	58	1	12	3
1973	32	2	18	4

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	191	0	0	191

1965	295	0	0	295
1966	375	0	0	375
1967	360	0	0	217
1968	350	0	0	340
1969	364	0*	0*	340*
1970	162	0	0	162
1971	222	1	0	222
1972	206	1	0	205
1973	233	2	0	231

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	143	40	7	93
1965	147	44	6	92
1966	139	46	6	83
1967	122	39	5	72
1968	133	41	11	78
1969	146	44	20	80
1970	196	47	0*	0*
1971	204	59	0*	0*
1972	161	76	0*	0*
1973	170	102	29	36

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: CLARK OIL AND REFINING CORP

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	533	27*	97	0
1966	582	71*	97	0
1967	686	90*	164	0
1968	915	118*	315	0
1969	1057	70*	308	0
1970	1009	73*	215	0
1971	1037	82*	202	0
1972	1319	115*	266	0
1973	1468	151*	163	Q

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	82	0*	78	4
1966	104	0*	100	4
1967	128	0*	124	4
1968	66	0*	63	3
1969	73	0*	69	4
1970	213	0*	210	3
1971	269	0*	266	3
1972	248	0*	244	4
1973	179	0*	176	3

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	56	0*	56	0
1966	59	0*	59	0
1967	83	0*	83	0
1968	134	0*	134	0
1969	145	0*	145	0
1970	79	0*	79	0
1971	28	0*	28	0
1972	40	0*	40	0
1973	86	0*	86	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	9	0*	9	0
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	14	0*	14	0
1971	19	0*	19	0
1972	16	0*	16	0
1973	30	0*	30	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL AND #2 FUEL OIL

1964	0*	0*	0*	0*
1965	36	0*	36	0
1966	57	0*	57	0
1967	0*	0*	0*	0*
1968	156	0*	156	0
1969	175	0*	175	0
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: CLINTON OIL COMPANY

U.S. TOTAL SALES FOR: COMMONWEALTH OIL REFINING

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	162	162	0	0
1971	208	208	0	0
1972	357	357	0	0
1973	326	326	0	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	2	2	0	0
1971	7	7	0	0
1972	31	31	0	0
1973	6	6	0	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: CONTINENTAL OIL CO.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: CROWN CENTRAL PETROLEUM

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	242	147	95	0
1965	260	127	132	0
1966	264	121	142	0
1967	296	118	178	0
1968	337	121	216	0
1969	426	148	277	0
1970	476	182	294	0
1971	564	173	391	0
1972	641	196	446	0
1973	462	262	201	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	55	27	27	0
1965	58	26	32	0
1966	58	25	33	0
1967	63	29	34	0
1968	62	28	34	0
1969	58	23	34	0
1970	54	20	34	0
1971	58	16	42	0
1972	53	6	47	0
1973	32	3	29	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0	0	0	0
1965	0	0	0	0
1966	0	0	0	0
1967	0	0	0	0
1968	0	0	0	0
1969	0	0	0	0
1970	12	0	0	12
1971	30	0	0	30
1972	29	0	0	29
1973	28	0	0	28

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	21	2	19	0

1965	23	1	22	0
1966	24	1	22	0
1967	26	1	25	0
1968	27	1	26	0
1969	28	1	26	0
1970	29	2	27	0
1971	29	2	26	0
1972	30	2	28	0
1973	20	1	18	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: DIAMOND SHAMROCK OIL AND GAS

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	291	218	6	67
1965	332	252	3	76
1966	351	281	0	70
1967	405	320	0	85
1968	444	346	0	98
1969	431	392	0	39
1970	527	469	0	58
1971	585	550	0	35
1972	625	594	0	31
1973	628	609	0	19

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	2	0	0	2
1971	2	0	0	2
1972	6	0	0	6
1973	5	0	0	5

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	123	0	0	123
1965	108	0	0	108
1966	120	0	0	120
1967	102	0	0	102
1968	104	0	0	104
1969	109	0	0	109
1970	78	0	0	78
1971	73	0	0	73
1972	72	0	0	72
1973	60	0	0	60

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL AND #2 FUEL OIL				
1964	41	34	0	7

1965	43	37	0	6
1966	42	36	0	6
1967	48	37	0	11
1968	53	42	0	11
1969	59	44	0	15
1970	70	47	0	23
1971	78	50	0	28
1972	97	56	0	41
1973	129	86	0	43

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: EXXON CORPORATION

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	5982	4489	19	1475
1965	6134	4613	13	1508
1966	6059	4787	13	1291
1967	6670	5195	7	1475
1968	6832	5499	28	1305
1969	7133	5625	16	1492
1970	7352	5376	8	1968
1971	7383	5259	16	2089
1972	7508	5752	17	1740
1973	8572	6945	18	1608
	* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS			
#2 FUEL OIL				
1964	2125	0*	1721	384
1965	2380	0*	1929	429
1966	2536	0*	2068	460
1967	2790	0*	2343	439
1968	2721	1086	1192	454
1969	2576	1012	1155	409
1970	2744	946	1369	429
1971	2490	821	1194	474
1972	2699	890	1244	564
1973	3003	932	1473	598
	* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS			
RESIDUAL FUEL OIL				
1964	5090	0*	2838	2252
1965	5754	0*	3389	2365
1966	5283	0*	2877	2406
1967	4809	0*	2360	2449
1968	5524	174	2596	2754
1969	6988	119	2814	4054
1970	8471	121	3092	5268
1971	8201	82	3286	4758
1972	8092	6	2429	5510
1973	8970	7	2870	6011
	* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS			
JET FUEL				
1964	1108	0*	12	1086

1965	1090	0*	1	1080
1966	1217	0*	1	1205
1967	1608	0	0	1608
1968	1885	0	0	1885
1969	2189	0	0	2189
1970	2017	0	0	2017
1971	2028	0	0	2028
1972	1830	0	0	1830
1973	1929	0	0	1929

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL AND #2 FUEL OIL

1964	1052	0*	0*	0*
1965	1121	0*	0*	0*
1966	1113	0*	0*	0*
1967	1156	0*	0*	0*
1968	1217	287	49	874
1969	1288	306	44	938
1970	1150	270	56	815
1971	1064	242	50	764
1972	1137	258	81	799
1973	1359	296	93	958

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: FARMLAND INDUSTRIES, INC.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	406	327	79	0
1965	425	350	75	0
1966	463	362	101	0
1967	487	383	104	0
1968	520	402	118	0
1969	547	412	135	0
1970	509	401	108	0
1971	598	461	137	0
1972	633	479	154	0
1973	642	528	114	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	198	77	122	0
1965	196	86	109	0
1966	201	80	122	0
1967	210	82	128	0
1968	207	86	121	0
1969	167	98	68	0
1970	146	100	46	0
1971	159	123	36	0
1972	153	109	45	0
1973	164	156	7	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	4	0	3	0
1965	2	0	2	0
1966	4	0	4	0
1967	4	0	3	0
1968	3	0	3	0
1969	3	1	2	0
1970	6	2	4	0
1971	14	3	11	0
1972	16	0	15	0
1973	14	1	12	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	7	0	7	0

1965	1	0	1	0
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	4	0	4	0
1970	15	0	15	0
1971	12	0	12	0
1972	2	0	2	0
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	33	32	1	0
1965	32	31	1	0
1966	52	50	2	0
1967	59	58	1	0
1968	73	71	2	0
1969	81	79	2	0
1970	90	88	2	0
1971	104	102	1	0
1972	123	117	6	0
1973	143	140	3	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: FELMONT OIL CORPORATION

U.S. TOTAL SALES FOR: FLETCHER OIL & REFINING CO.

U.S. TOTAL SALES FOR: FOREST OIL CORPORATION

U.S. TOTAL SALES FOR: GENERAL AMER.OIL CO OF TEXAS

U.S. TOTAL SALES FOR: GETTY OIL CO.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	775	554	145	75
1966	727	588	52	87
1967	551	447	39	64
1968	489	382	26	81
1969	487	367	7	112
1970	614	488	5	120
1971	697	586	2	109
1972	677	649	1	26
1973	723	697	1	24

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	382	278	89	16
1965	367	276	61	27
1966	371	262	57	52
1967	286	131	67	88
1968	259	101	95	64
1969	236	99	89	48
1970	264	123	65	75
1971	253	106	54	93
1972	260	116	66	79
1973	270	126	59	84

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	166	10	108	48
1965	160	7	80	72
1966	128	3	67	58
1967	63	0	55	8
1968	41	0	24	17
1969	51	0	37	13
1970	39	15	9	15
1971	38	0	1	36
1972	105	0	51	54
1973	70	0	0	70

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	56	0	0	56
1968	89	0	0	89
1969	101	0	0	101
1970	41	0	0	41
1971	4	0	0	4
1972	39	0	0	39
1973	22	0	0	22

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	78	59	1	18
1965	75	18	37	20
1966	65	15	38	12
1967	42	11	24	7
1968	30	10	13	7
1969	35	9	11	15
1970	33	8	10	15
1971	32	10	11	11
1972	21	12	3	6
1973	23	13	3	7

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: GULF OIL CORP.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	6591	5016	112	1463
1969	6773	5269	156	1348
1970	6621	5019	232	1371
1971	6583	4990	237	1356
1972	6761	5267	257	1237
1973	7581	5875	227	1478

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	1192	0*	0*	0*
1969	1201	0*	0*	0*
1970	1136	101	26	1009
1971	1043	96	31	916
1972	1203	77	12	1114
1973	1152	92	60	1000

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL AND #2 FUEL OIL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	3014	1299	0	1715
1969	3150	1298	3	1849
1970	3177	1214	6	1957
1971	3104	1217	6	1881
1972	3477	1328	3	2145
1973	3477	1353	17	2107

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

KEROSINE

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

KEROSINE AND JET FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	858	144	0	714
1969	681	166	0	515
1970	669	168	0	501
1971	684	166	0	518
1972	666	172	0	494
1973	629	149	1	479

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: HAMILTON BROTHERS, INC.

U.S. TOTAL SALES FOR: HUNT OIL COMPANY

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	11	8	1	1
1965	11	9	1	1
1966	14	10	3	1
1967	16	11	4	1
1968	16	12	3	1
1969	16	13	3	1
1970	18	13	3	1
1971	19	14	4	1
1972	22	14	7	1
1973	19	13	5	1
	* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS			
#2 FUEL OIL				
1964	7	0	3	5
1965	6	0	3	4
1966	4	0	0	4
1967	5	0	1	4
1968	6	0	0	6
1969	6	0	0	6
1970	12	0	0	12
1971	12	0	0	12
1972	12	0	0	12
1973	11	0	1	10
	* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS			
RESIDUAL FUEL OIL				
1964	23	0	19	4
1965	24	0	21	3
1966	25	0	20	5
1967	28	0	23	5
1968	32	0	23	9
1969	31	0	14	16
1970	32	0	11	22
1971	46	0	10	36
1972	54	0	7	47
1973	40	0	6	33
	* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS			
JET FUEL				
1964	22	0	0	22

1965	20	0	0	20
1966	22	0	0	22
1967	24	0	0	24
1968	26	0	1	24
1969	20	0	1	19
1970	19	0	1	18
1971	18	0	0	17
1972	28	0	1	27
1973	22	0	1	21

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	5	0	2	3
1965	7	0	0	7
1966	8	0	1	7
1967	10	0	1	8
1968	9	0	0	9
1969	10	0	1	10
1970	17	0	3	13
1971	20	0	4	16
1972	24	0	8	17
1973	22	0	3	19

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: KERR-MCGEE CORPORATION

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	1029	0*	0*	0*
1967	1094	441	0	653
1968	1194	447	0	747
1969	1362	540	0	822
1970	1481	478	0	1003
1971	1607	508	0	1099
1972	1774	644	0	1130
1973	1504	667	0	837

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	60	0	0	60
1967	59	0	0	59
1968	72	0	0	72
1969	50	0	0	50
1970	35	0	0	35
1971	36	0	0	36
1972	28	0	0	28
1973	15	0	0	15

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

OTHER PRODUCTS, MAINLY #2 FUEL OIL AND DIESEL FUEL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	470	0*	0*	0*
1967	457	109	0	348
1968	443	80	0	363
1969	417	87	0	330
1970	423	88	0	335
1971	421	84	0	337
1972	453	90	0	363
1973	347	64	0	283

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: LION OIL COMPANY

NOTES: 1972 FIGURES ARE FOR A 3 MO. PERIOD.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	64	21	34	8
1973	253	79	142	32

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	12	0	12	0
1973	37	0	36	1

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	13	0	6	7
1973	24	0	12	12

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	28	5	7	16
1973	104	31	29	44

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: LONE STAR GAS COMPANY

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0	0	0	0
1973	0	0	0	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: LOUISIANA LAND AND EXPL.CO

U.S. TOTAL SALES FOR: MCCULLOCH OIL COMPANY

U.S. TOTAL SALES FOR: MARATHON OIL CO.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	2268	730	1498	40
1972	2394	765	1592	36
1973	2489	798	1657	35

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	441	130	269	41
1972	565	156	371	38
1973	581	187	356	38

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	143	0	143	0
1972	148	0	148	0
1973	154	0	154	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	5	0	5	0
1972	9	0	9	0
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	273	29	210	35
1972	271	34	210	27
1973	268	41	199	28

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: MESA PETROLEUM CO.

U.S. TOTAL SALES FOR: MOBIL OIL CORP

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	5784	5078	0	706
1970	5998	5290	0	708
1971	6114	5441	0	672
1972	6550	5799	50	751
1973	6992	6118	0	874

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	1753	1473	0	281.
1970	1866	1551	0	315
1971	1864	1543	0	321
1972	2091	1595	0	496
1973	2051	1622	0	430

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	516	109	0	407
1970	368	123	0	245
1971	1072	107	0	964
1972	1234	123	0	1112
1973	1245	112	0	1133

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	873	13	0	860
1970	980	12	0	969
1971	839	13	0	826
1972	928	13	0	915
1973	660	15	0	645

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	954	167	0	787
1970	906	164	0	742
1971	970	165	0	805
1972	1194	166	0	1028
1973	1196	192	3	1004

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL AND #2 FUEL OIL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	39	0	0	39
1972	49	0	0	49
1973	53	0	0	53

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: MONSANTO CO.

U.S. TOTAL SALES FOR: MURPHY OIL CORPORATION

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	484	241	207	35
1968	525	251	268	6
1969	627	289	326	12
1970	714	316	385	12
1971	787	357	349	81
1972	800	367	426	7
1973	780	461	311	8

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	59	6	47	6
1968	70	7	56	7
1969	86	7	64	14
1970	94	6	71	17
1971	99	2	58	38
1972	114	2	81	31
1973	103	4	70	29

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	68	0	23	45
1968	72	0	61	11
1969	79	1	61	17
1970	70	1	53	16
1971	109	0	28	80
1972	121	0	116	4
1973	182	0	23	159

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	70	12	21	37
1968	85	12	54	19
1969	107	17	72	18
1970	102	21	62	20
1971	106	23	22	60
1972	172	25	106	41
1973	225	31	94	99

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: NATL COOP.REFINERY ASSN.

U.S. TOTAL SALES FOR: OCCIDENTAL PETROLEUM CORP.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0	0	0	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: PANHANDLE EASTERN PIPELINE

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	35	0*	35	0
1965	43	0*	43	0
1966	35	0*	35	0
1967	42	0*	42	0
1968	44	0*	44	0
1969	51	0*	50	1
1970	23	0*	23	0
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0	0	0	0
1965	1	0	1	0
1966	0	0	0	0
1967	0	0	0	0
1968	1	0	1	0
1969	2	0	2	0
1970	1	0	1	0
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	11	0*	10	1
1965	14	0*	13	1
1966	11	0*	10	1
1967	16	0*	14	2
1968	18	0*	16	2
1969	18	0*	16	2
1970	9	0*	8	1
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

ASPHALT				
1964	10	0	10	0

1965	10	0	10	0
1966	10	0	10	0
1967	9	0	9	0
1968	11	0	11	0
1969	13	0	13	0
1970	5	0	5	0
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: POWERINE OIL CO.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	247	0*	0*	0*
1973	253	1*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	145	0*	0*	53
1973	185	0*	0*	37

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	96	0*	0*	36
1973	33	0*	0*	33

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	10	0*	0*	0*
1973	6	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

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U.S. TOTAL SALES FOR: ROCK ISLAND REFINERY CORP

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	130	0	129	0
1965	137	0	136	0
1966	138	0	137	1
1967	155	0	154	0
1968	172	0	165	6
1969	179	0	176	2
1970	190	0	190	0
1971	215	0	213	0
1972	246	0	244	0
1973	255	0	253	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	46	0	45	0
1965	53	0	50	2
1966	51	0	50	1
1967	57	0	51	5
1968	51	0	49	2
1969	56	0	55	0
1970	54	0	54	0
1971	53	0	52	1
1972	79	0	62	16
1973	58	0	57	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	30	0	30	0
1965	27	0	26	1
1966	34	0	33	1
1967	32	0	31	0
1968	24	0	24	0
1969	23	0	22	0
1970	30	0	30	0
1971	27	0	26	0
1972	37	0	36	1
1973	31	0	31	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	25	0	24	1

1965	25	0	24	1
1966	27	0	27	0
1967	25	0	24	1
1968	25	0	25	0
1969	25	0	25	0
1970	22	0	22	0
1971	28	0	24	4
1972	10	0	10	0
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	7	0	7	0
1965	6	0	6	0
1966	7	0	7	0
1967	8	0	8	0
1968	7	0	7	0
1969	6	0	6	0
1970	7	0	7	0
1971	6	0	6	0
1972	11	0	7	4
1973	4	0	4	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: SHELL OIL CO.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	7214	6670	127	398
1971	7196	6614	187	396
1972	7546	6879	253	414
1973	8186	7486	257	442

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	1047	804	119	124
1971	952	738	100	113
1972	1119	826	157	136
1973	1130	843	129	158

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	1050	69	337	643
1971	837	55	193	590
1972	957	52	207	697
1973	1255	79	203	972

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	2344	57	0	2287
1971	2478	55	0	2422
1972	2559	61	0	2498
1973	2738	73	0	2665

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	911	178	40	693
1971	1077	174	47	856
1972	1160	212	47	900
1973	1290	250	38	1001

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: SOUTHLAND OIL COMPANY

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	36	0*	0*	0*
1965	36	0*	0*	0*
1966	35	0*	0*	0*
1967	36	0*	0*	0*
1968	37	0*	0*	0*
1969	37	0*	0*	0*
1970	36	0*	0*	0*
1971	35	0*	0*	0*
1972	35	0*	0*	0*
1973	36	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	8	0	0	0*
1965	5	0	0	0*
1966	2	0	0	0*
1967	2	0	0	0*
1968	4	0	0	0*
1969	7	0	0	0*
1970	9	0	0	0*
1971	9	0	0	0*
1972	12	0	0	0*
1973	41	0	0	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	17	0	0	0*
1965	17	0	0	0*
1966	18	0	0	0*
1967	18	0	0	0*
1968	18	0	0	0*
1969	17	0	0	0*
1970	21	0	0	0*
1971	23	0	0	0*
1972	25	0	0	0*
1973	27	0	0	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	26	0*	0*	0*

1965	25	0*	0*	0*
1966	24	0*	0*	0*
1967	22	0*	0*	0*
1968	24	0*	0*	0*
1969	23	0*	0*	0*
1970	27	0*	0*	0*
1971	43	0*	0*	0*
1972	36	0*	0*	0*
1973	35	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: SOUTHWESTERN OIL&REFINING

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	178	0	0	178
1965	321	0	0	321
1966	236	0	0	236
1967	198	0	0	198
1968	173	0	0	173
1969	184	0	0	184
1970	225	0	0	225
1971	175	0	0	175
1972	317	0	0	317
1973	287	0	0	287

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	245	0	0	245
1965	299	0	0	299
1966	321	0	0	321
1967	345	0	0	345
1968	277	0	0	277
1969	299	0	0	299
1970	365	0	0	365
1971	268	0	0	268
1972	258	0	0	258
1973	356	0	0	356

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	21	0	0	21
1965	21	0	0	21
1966	19	0	0	19
1967	13	0	0	13
1968	26	0	0	26
1969	19	0	0	19
1970	21	0	0	21
1971	21	0	0	21
1972	16	0	0	16
1973	24	0	0	24

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	107	0	0	107
1969	73	0	0	73
1970	12	0	0	12
1971	92	0	0	92
1972	36	0	0	36
1973	5	0	0	5

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: STANDARD OIL CO. OF CALIF.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	363	280	26	57
1970	367	285	26	55
1971	4562	3653	153	756
1972	4931	3865	225	840
1973	5229	4075	231	923

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	11	1	0	10
1970	13	3	0	10
1971	881	92	383	405
1972	941	90	410	442
1973	926	100	407	419

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	119	0	0	119
1970	127	0	0	127
1971	1110	99	614	397
1972	1047	43	599	405
1973	859	67	384	408

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	58	0	0	58
1970	103	0	0	103
1971	1782	17	0	1765
1972	1886	20	0	1866
1973	1875	19	0	1856

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	202	45	2	154
1970	218	54	3	161
1971	1589	170	120	1298
1972	1875	196	116	1564
1973	2162	238	124	1800

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#1 HEATING FUEL AND KEROSINE

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	13	1	0	12
1970	14	2	0	11
1971	160	30	50	80
1972	160	30	47	82
1973	157	29	53	75

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

FUEL OIL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	1307	53	0	1254
1972	1496	49	0	1446
1973	1926	45	0	1881

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: STANDARD OIL CO.OF INDIANA

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	6885	5351	6	1531
1972	7591	5556	5	2030
1973	7842	5869	4	1969

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	1593	191	125	1276
1972	1901	203	142	1555
1973	1621	206	124	1289

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	738	1	18	720
1972	911	7	36	867
1973	993	1	56	936

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	587	1	0	586
1972	589	1	0	588
1973	602	1	0	601

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	2024	327	6	1688
1972	2219	352	4	1859
1973	2234	376	4	1849

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: STANDARD OIL COMPANY OF OHIO

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	1194	986	29	180
1965	1261	1066	20	174
1966	1306	1119	14	173
1967	1422	1231	8	182
1968	1457	1265	7	185
1969	1519	1330	6	183
1970	3108	2549	195	363
1971	3067	2537	156	374
1972	2987	2247	431	309
1973	2782	2096	367	318

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	200	30	12	159
1965	206	30	11	164
1966	221	26	11	184
1967	211	18	11	182
1968	220	19	12	188
1969	217	19	8	190
1970	945	312	82	551
1971	948	359	73	516
1972	950	356	121	473
1973	775	324	67	384

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	80	0	2	79
1965	63	0	1	62
1966	41	0	0	41
1967	20	0	0	20
1968	13	0	0	13
1969	24	0	0	24
1970	315	0	13	301
1971	296	5	146	145
1972	331	0	185	147
1973	232	0	99	133

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	175	1	0	174

1965	118	1	0	117
1966	138	2	0	136
1967	121	2	0	119
1968	156	3	0	153
1969	206	4	0	202
1970	313	4	0	308
1971	348	0	0	348
1972	345	0	0	345
1973	345	0	0	345

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	201	23	2	176
1965	204	28	1	174
1966	213	33	7	173
1967	226	41	5	179
1968	273	50	4	218
1969	315	63	4	248
1970	487	92	10	385
1971	515	97	9	409
1972	399	46	2	351
1973	414	51	2	362

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: TENNECO OIL CO.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	71	71	0	0
1968	64	64	0	0
1969	67	67	0	0
1970	83	83	0	0
1971	101	101	0	0
1972	101	101	0	0
1973	73	73	0	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	1	1	0	0
1968	1	1	0	0
1969	1	1	0	0
1970	2	2	0	0
1971	2	2	0	0
1972	2	2	0	0
1973	2	2	0	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

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U.S. TOTAL SALES FOR: TEXACO, INC.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	7543	6487	0	1056
1970	7810	6639	78	1093
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	1789	0*	0*	0*
1970	1701	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	4702	0*	0*	0*
1970	4224	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	2231	45	0	2186
1970	2158	0	0	2158
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	1422	398	14	1010
1970	1529	398	15	1116
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: TEXAS CITY REFINING, INC.

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	30	14	16	0
1972	37	19	18	0
1973	26	17	9	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0	0	0	0
1972	0	0	0	0
1973	0	0	0	0

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: CALTEX

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0*	0*	0*	0*

1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	0*	0*	0*	0*
1965	0*	0*	0*	0*
1966	0*	0*	0*	0*
1967	0*	0*	0*	0*
1968	0*	0*	0*	0*
1969	0*	0*	0*	0*
1970	0*	0*	0*	0*
1971	0*	0*	0*	0*
1972	0*	0*	0*	0*
1973	0*	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR: SKELLY OIL CO

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	578	0*	0*	0*
1965	615	0*	0*	0*
1966	643	0*	0*	0*
1967	649	0*	0*	0*
1968	679	0*	0*	0*
1969	743	0*	0*	0*
1970	752	0*	0*	0*
1971	759	0*	0*	0*
1972	795	0*	0*	0*
1973	786	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

#2 FUEL OIL				
1964	103	0*	0*	0*
1965	115	0*	0*	0*
1966	115	0*	0*	0*
1967	112	0*	0*	0*
1968	116	0*	0*	0*
1969	123	0*	0*	0*
1970	135	0*	0*	0*
1971	135	0*	0*	0*
1972	138	0*	0*	0*
1973	101	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

RESIDUAL FUEL OIL				
1964	14	0*	0*	0*
1965	9	0*	0*	0*
1966	6	0*	0*	0*
1967	9	0*	0*	0*
1968	14	0*	0*	0*
1969	14	0*	0*	0*
1970	14	0*	0*	0*
1971	7	0*	0*	0*
1972	11	0*	0*	0*
1973	4	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

JET FUEL				
1964	0	0*	0*	0*

1965	0	0*	0*	0*
1966	0	0*	0*	0*
1967	0	0*	0*	0*
1968	0	0*	0*	0*
1969	0	0*	0*	0*
1970	0	0*	0*	0*
1971	0	0*	0*	0*
1972	0	0*	0*	0*
1973	0	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

DIESEL FUEL

1964	90	0*	0*	0*
1965	106	0*	0*	0*
1966	125	0*	0*	0*
1967	160	0*	0*	0*
1968	177	0*	0*	0*
1969	189	0*	0*	0*
1970	211	0*	0*	0*
1971	244	0*	0*	0*
1972	250	0*	0*	0*
1973	270	0*	0*	0*

* DATA NOT GIVEN OR NOT AVAILABLE FOR SOME OR ALL LOCATIONS

U.S. TOTAL SALES FOR ALL REPORTING COMPANIES

	TOTAL SALES	BRANDED SALES	UNBRANDED SALES	DIRECT SALES
GASOLINE				
1964	12101	6680	739	2176
1965	13827	8880	983	2424
1966	14771	9092	890	2118
1967	16073	10267	1040	2695
1968	23327	15646	1424	4065
1969	38448	28133	1604	6013
1970	49010	36472	2031	7378
1971	55679	39823	4037	8718
1972	59394	42473	4899	8880
1973	62625	46126	4919	9018
#2 FUEL OIL				
1964	4128	837	2213	925
1965	4514	866	2453	1034
1966	4745	835	2624	1134
1967	4992	699	2978	1170
1968	4769	1744	1803	1106
1969	8205	3161	1727	1371
1970	10631	4371	2110	1913
1971	11424	4664	2679	3659
1972	12593	4941	3051	4223
1973	12469	5136	3232	3974
RESIDUAL FUEL OIL				
1964	5667	10	3086	2459
1965	6307	7	3647	2576
1966	5766	5	3117	2574
1967	5285	4	2621	2593
1968	7200	178	2917	2878
1969	14059	233	3146	4719
1970	16188	436	3716	7747
1971	14104	451	4573	8939
1972	14805	311	3901	10291
1973	15898	365	4014	11237
JET FUEL				
1964	1756	1	56	1672
1965	1735	1	39	1668
1966	2054	2	40	1983
1967	2489	3	36	2288
1968	2935	3	34	2869

1969	6420	62	41	6276
1970	8391	74	47	8250
1971	8648	86	48	8489
1972	8666	96	28	8517
1973	8611	110	4	8470

DIESEL FUEL

1964	727	172	71	328
1965	756	140	102	324
1966	782	166	107	304
1967	911	190	144	341
1968	1041	221	200	358
1969	3729	866	244	2351
1970	5003	1107	283	3171
1971	7533	1235	608	5200
1972	8323	1345	660	5871
1973	8913	1598	645	6297

DIESEL FUEL AND #2 FUEL OIL

1964	1119	34	0	7
1965	1228	37	36	6
1966	1239	36	57	6
1967	1228	37	0	11
1968	4467	1628	205	2600
1969	4699	1648	222	2801
1970	4431	1530	62	2795
1971	4324	1508	56	2712
1972	4759	1642	84	3033
1973	5018	1735	110	3161

KEROSINE

1964	0	0	0	0
1965	0	0	0	0
1966	0	0	0	0
1967	0	0	0	0
1968	0	0	0	0
1969	0	0	0	0
1970	0	0	0	0
1971	0	0	0	0
1972	0	0	0	0
1973	0	0	0	0

KEROSINE AND JET FUEL

1964	0	0	0	0
1965	0	0	0	0
1966	0	0	0	0
1967	0	0	0	0
1968	858	144	0	714

1969	681	166	0	515
1970	669	168	0	501
1971	684	166	0	518
1972	666	172	0	494
1973	629	149	1	479

ASPHALT

1964	10	0	10	0
1965	10	0	10	0
1966	10	0	10	0
1967	9	0	9	0
1968	11	0	11	0
1969	13	0	13	0
1970	5	0	5	0
1971	0	0	0	0
1972	0	0	0	0
1973	0	0	0	0

OTHER PRODUCTS, MAINLY #2 FUEL OIL AND DIESEL FUEL

1964	0	0	0	0
1965	0	0	0	0
1966	470	0	0	0
1967	457	109	0	348
1968	443	80	0	363
1969	417	87	0	330
1970	423	88	0	335
1971	421	84	0	337
1972	453	90	0	363
1973	347	64	0	283

#2 FUEL OIL, DIESEL FUEL AND KEROSINE

1964	0	0	0	0
1965	0	0	0	0
1966	0	0	0	0
1967	0	0	0	0
1968	0	0	0	0
1969	0	0	0	0
1970	0	0	0	0
1971	0	0	0	0
1972	0	0	0	0
1973	0	0	0	0

#1 HEATING FUEL AND KEROSINE

1964	0	0	0	0
1965	0	0	0	0
1966	0	0	0	0
1967	0	0	0	0
1968	0	0	0	0

1969	13	1	0	12
1970	14	2	0	11
1971	160	30	50	80
1972	160	30	47	82
1973	157	29	53	75

FUEL OIL

1964	0	0	0	0
1965	0	0	0	0
1966	0	0	0	0
1967	0	0	0	0
1968	0	0	0	0
1969	0	0	0	0
1970	0	0	0	0
1971	1307	53	0	1254
1972	1496	49	0	1446
1973	1926	45	0	1881

Notes to Appendix F

Branded Sales include amounts sold in one or more of the following categories:

(1) directly through the company's own tank wagon sales to its own company owned or leased branded retail dealers;

(2) directly through the company's own tank wagon sales to branded retail dealers who operate under a product sales agreement with it;

(3) through its independent branded wholesale jobbers and distributors.

Unbranded Sales include amounts sold in one or more of the following categories:

(1) through the company's own tank wagon sales to unbranded retailers;

(2) through unbranded jobbers and distributors.

An example of Direct Sales are those to government bodies.

Sales are in millions of gallons. An entry of "0" without an asterisk in a company's data indicates sales of less than 500,000 gallons.

The companies listed are all those that responded to question 19 in the survey. A table for a fuel type that consists of "0*'s" for all years and categories indicates that the company reported foreign but not domestic sales of that fuel.

○