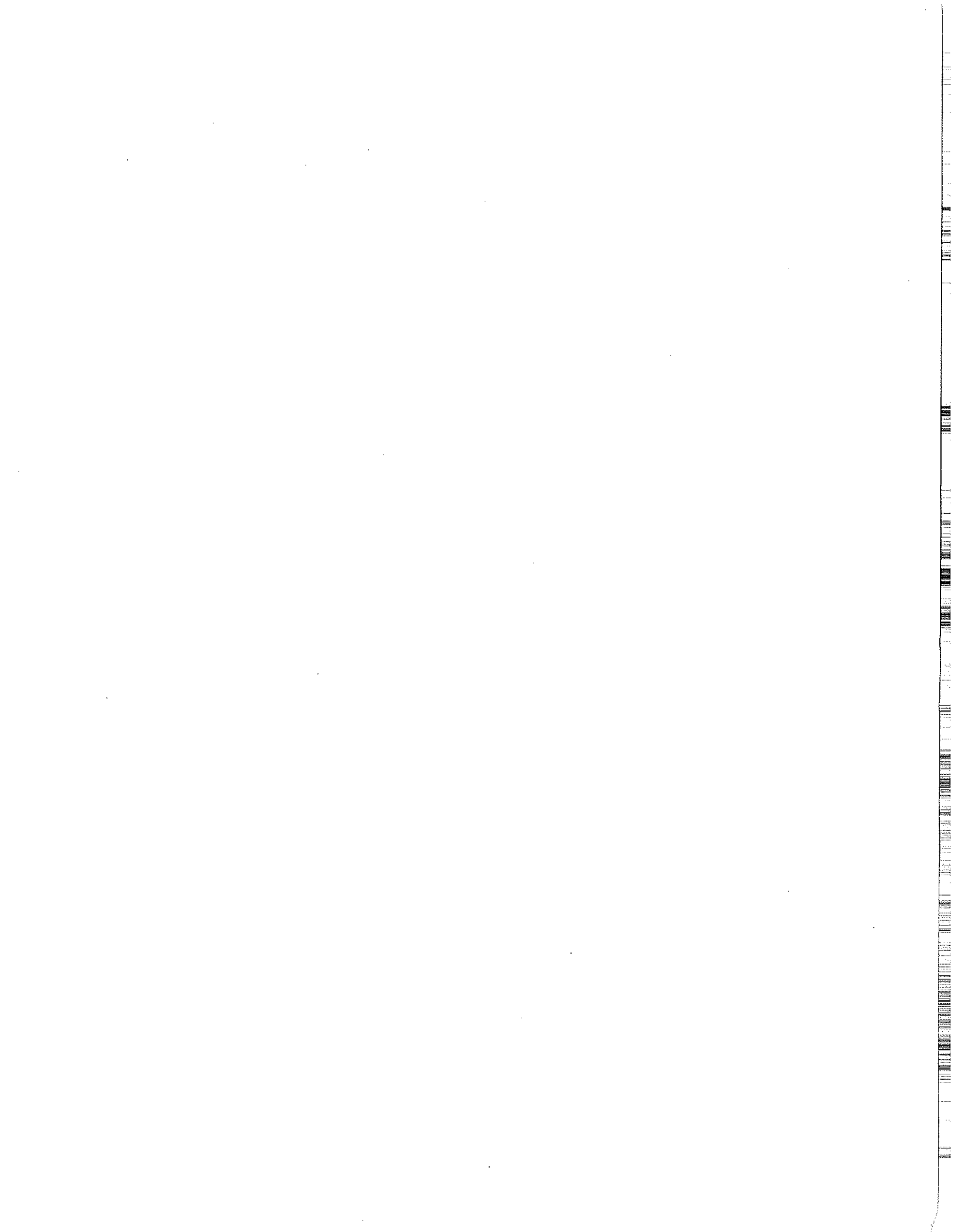


THE EFFECT OF IMPORTS OF CRUDE OIL AND REFINED PETROLEUM PRODUCTS ON THE NATIONAL SECURITY

An Investigation Conducted Under Section 232 of the
Trade Expansion Act of 1962, as amended.



U.S. Department of Commerce
Bureau of Export Administration
December 1994



The Effect of Imports of Crude Oil and Refined Petroleum Products on the National Security

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Prepared by

**U.S. Department of Commerce
Bureau of Export Administration
Office of Strategic Industries and Economic Security
Strategic Analysis Division**

December 1994

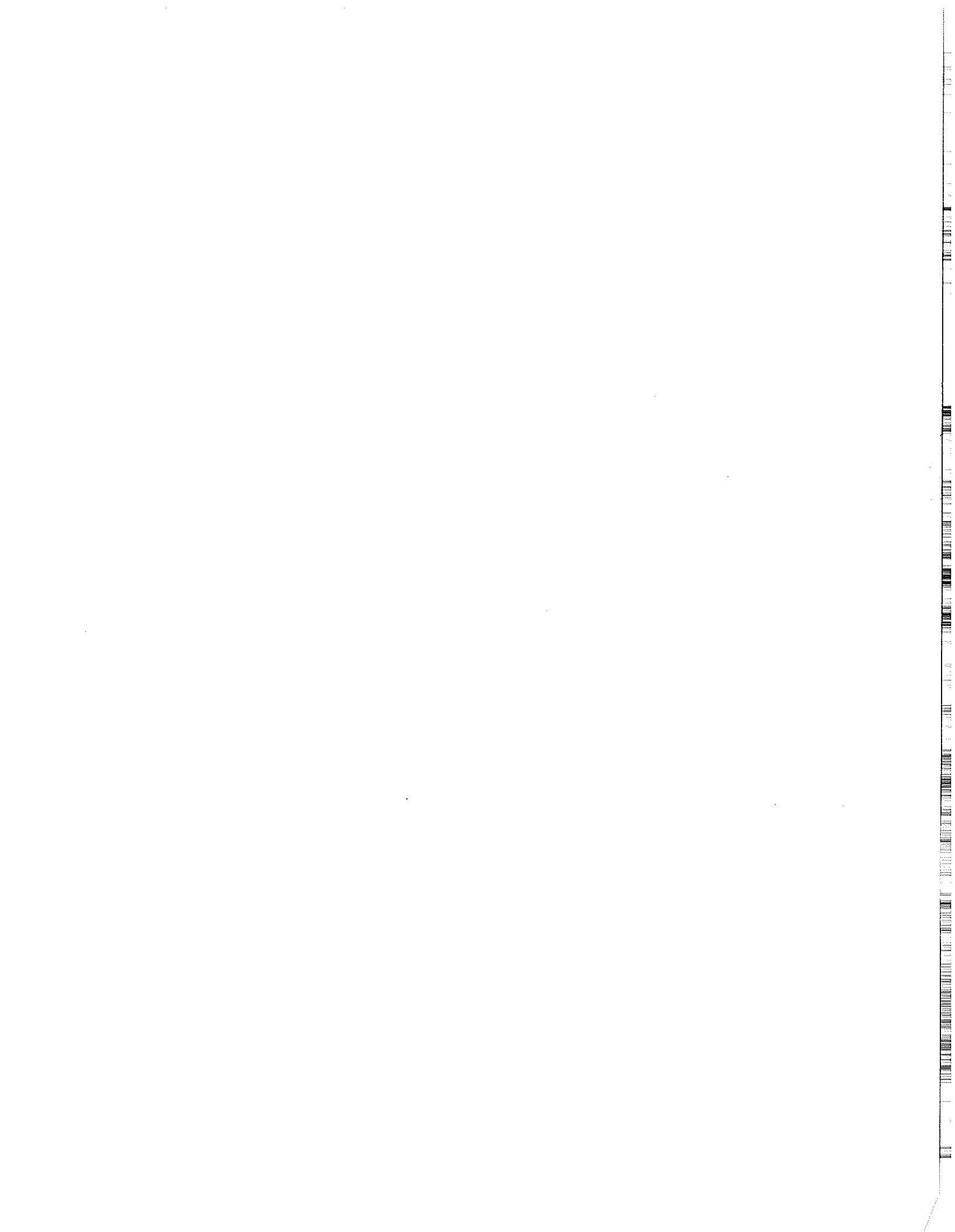
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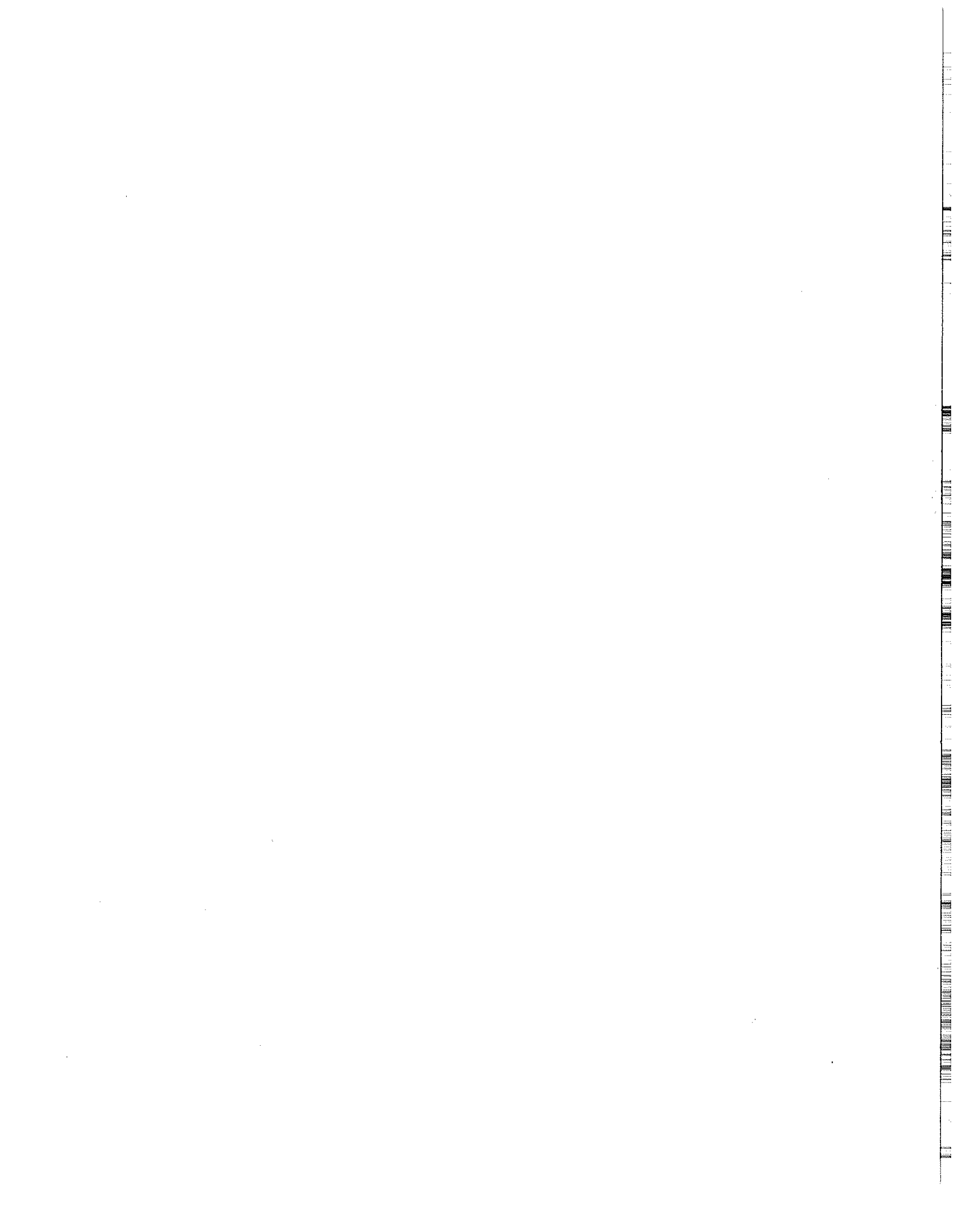
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EXECUTIVE SUMMARY

Introduction

On March 11, 1994, the Independent Petroleum Association of America (IPAA) and various other industry associations, companies, and individuals filed a petition under Section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. Section 1862 (1988)) requesting the Department to initiate an investigation of the impact on the national security of imports of crude oil and refined petroleum products.

The IPAA petition alleged that U.S. energy security worsened since the Department's last Section 232 oil import investigation in 1988 because oil imports grew both in absolute terms and as a percentage of U.S. oil consumption, leaving the United States further subject to an oil supply disruption with the resultant economic costs. The petition also alleged that imports of low-priced oil are weakening the domestic petroleum industry to such an extent that it will not be able to support U.S. security needs in the event of a major conventional war.

On April 5, 1994, the Department initiated the investigation and invited public comment. The Department held three public hearings in New York, New York; Dallas, Texas; and Santa Clara, California. During the comment period, 69 people presented comments reflecting both support for and opposition to the allegations made by the petitioner.

Under Section 232, the Department has 270 days, until December 31, 1994, from the date of initiation of an investigation to submit a report of findings and recommendations to the President.

Methodology

The Department chaired an interagency working group that included the Departments of Energy, Interior, Defense, Labor, State, and Treasury, the Office of Management and Budget, the Council of Economic Advisors, and the U.S. Trade Representative. This report is based on a number of agreed-upon economic assumptions including, inter alia, crude oil price levels, U.S. crude oil production, economic growth rates, and inflation.

The Department used a two-step process to evaluate the petition. In the first step, the Department reviewed key factors from the 1988 investigation to determine whether they improved or deteriorated. These factors included: 1) domestic oil reserves; 2) domestic oil production; 3) industry employment; 4) the impact of low oil prices on the economy; 5) the status of the domestic oil industry; 6) oil import dependence; 7) import vulnerability, including measures to offset an oil supply disruption; 8) foreign policy flexibility; and 9) U.S. military requirements. The

second step involved review of new factors that emerged since the last investigation, including: 1) the status of OPEC; 2) oil price transparency due to the emergence of a futures market; and 3) the demise of the Soviet Union.

The Department made use of the extensive data and analyses that were already available regarding the current and prospective status of the domestic petroleum industry and the world oil market. In view of this extensive body of available data, the Department determined that an industry survey was not necessary. The Department also drew upon the written comments and testimony from interested parties who participated in the public hearings.

Review of Key Factors From the 1988 Investigation

1. Domestic Oil Reserves

Petition: Low-priced oil imports (hereinafter referred to as low oil prices) were largely responsible for the decline in domestic oil reserves.

DOC Analysis and Conclusion: Since the 1988 investigation, U.S. proved crude oil reserves declined by 3.8 billion barrels. Low oil prices contributed to, but are not totally responsible for, the erosion of the U.S. oil reserves base. The underlying physical reality is that the U.S. already developed the bulk of its known and easily accessible low cost deposits and decided against developing other geological prospects such as the Arctic National Wildlife Refuge and the Outer Continental Shelf. Since the reserves base reflects the structural geological reality, given present technology, oil price increases at best can arrest, but not reverse this trend.

2. Domestic Oil Production

Petition: Low oil prices are responsible for the decline in U.S. production.

DOC Analysis and Conclusion: The production outlook remains essentially the same as in the 1988 investigation. The United States is a high-cost producer compared to other countries because we have already depleted our known low-cost reserves. Since 1986, low oil prices have exacerbated the cost-price squeeze facing U.S. producers. U.S. production declined by 1.7 million barrels per day (MB/D) and net imports increased. The dislocation undercut U.S. exploration activities and impaired the development of competing energy sources, thereby enabling OPEC to recapture part of the market it lost after the price shocks of the late 1970s.

3. Exploration and Industry Employment

Petition: Low oil prices are responsible for the massive falloff in drilling and in industry employment.

DOC Analysis and Conclusion: The Department found a sharp reduction in U.S. drilling and oil and gas industry employment between 1985 and 1993. The level of exploratory drilling, well completions, and rotary rigs in use for oil and gas exploration declined since 1988. Employment fell from 582,000 in 1985 to 351,000 in 1993. A large share of the lost jobs occurred in petroleum exploration and development sectors.

However, oil imports are not the only reason for the decline in exploratory drilling and well completions. U.S. companies are drilling less because they made substantial gains in total productivity by employing new exploration and drilling technology and focussing on the most productive geological opportunities.

4. The Impact on the Economy of Low Oil Prices

Petition: The petitioner did not specifically address the benefits to the economy of low oil prices.

DOC Analysis and Conclusion: The Department found that the economic consequences of low prices resulted in positive benefits to the U.S. economy. Because the United States is now a net importer of oil, lower prices on balance helped the economy. The public benefitted from lower prices for transportation fuels and heating oil. For the economy as a whole, low oil prices contributed to a reduction in inflation, a rise in real disposable income, and an increase in the Gross Domestic Product.

5. Current Status of the Domestic Oil Industry

Petition: Low oil prices and the uncertainty concerning future price drops were forcing small producers to abandon many fields prematurely. The possible loss of these reserves and production would result in increased dependence on foreign oil.

DOC Analysis and Conclusion: The Department found that, as world crude oil prices declined since 1986, the relatively smaller U.S. oil fields with higher cost production became uneconomical and the operators shut-in or abandoned some wells. The impact of low prices has been especially severe on small producers operating stripper wells with average production of 15 barrels per day or less. If small producers continue to shut-in production because of low oil prices, this could result in reduced cash flow to reinvest in exploration and increased dependence on lower-cost foreign oil.

6. Oil Import Dependence

Petition: U.S. national security worsened because oil imports have increased since 1988 both in absolute terms and as a percentage of U.S. oil consumption and our dependence on imported oil will continue.

DOC Analysis and Conclusion: The Department found that net U.S. imports have grown from 5.9 MB/D in 1987 to 7.5 MB/D in 1993. Imports currently account for 44 percent of domestic consumption compared to 37 percent in 1987. Imports from Persian Gulf countries increased from 1.07 MB/D in 1987 to 1.64 MB/D in 1993.

U.S. demand for imported oil is expected to continue growing because of declining production and increased economic growth. The Energy Information Administration of the U.S. Department of Energy (EIA/DOE) projects that net imports will increase to 11 MB/D by 2000 and account for approximately 51.5 percent of domestic consumption.

To the extent the United States and other countries import more oil in the future, EIA/DOE projects that they will turn increasingly to OPEC countries located in the Persian Gulf which has the largest amount of known low-cost reserves and surplus production capacity. The Persian Gulf producers will account for approximately 55 percent of world crude oil exports by 2000.

7. Vulnerability to a Supply Disruption

Petition: Increased reliance on low-priced oil imports will leave the United States subject to a supply disruption and resulting costs to the economy.

DOC Analysis and Conclusion: The Department found that political and economic problems in the Persian Gulf region make supply disruptions a possibility in the near-term. Disruptions are possible in other regions, but the risks to the U.S. and other importing countries are lower because oil production facilities elsewhere are not as concentrated as they are in the Persian Gulf.

The United States and the OECD countries have limited prospects to offset a major oil supply disruption because: 1) there is little surplus production outside the Persian Gulf; 2) U.S. and OECD government oil stocks today provide less protection from an interruption than was the case in 1988; and, 3) there is currently no substitute for liquid transportation fuels which account for approximately two-thirds of all oil consumption in the United States. During a major oil supply disruption, there could be substantial economic austerity as a result of the decreased availability of oil. This, in turn, could pose hardships for the U.S. economy.

8. Foreign Policy Flexibility

Petition: The petitioner did not raise this issue.

DOC Analysis and Conclusion: The Department found that our allies' and trading partners' dependence on potentially insecure sources of oil may affect their willingness to cooperate with the United States during a major oil supply disruption.

9. U.S. Military Requirements

Petition: Low oil prices are weakening the domestic petroleum industry to such an extent that it will not be able to support U.S. security needs in the event of a global conventional war.

DOC Analysis and Conclusion: The Department of Defense advised that the military requirements for petroleum fuels could be satisfied under current planning scenarios.

10. Other Factors

The Department evaluated several factors that served to improve the security of U.S. oil supplies since the 1988 investigation. Foremost among these factors are the following:

Status of OPEC - Low oil prices are in large part a symptom of the apparent disarray within OPEC. The ability of OPEC to manipulate prices has been impaired because its members have been unable to coordinate production levels among themselves.

Transparency of Oil Markets - The growth of the futures market into a full-fledged commodity market has made crude oil prices more transparent and less subject to manipulation. Computerized trading, options, and forward contracts have connected refined products and crude oil markets more closely than was the case in 1988.

Demise of the Soviet Union - The end of the Cold War and the breakup of the Soviet Union removed the risk of Middle East oil becoming a pawn in East-West competition. The demise of the Soviet Union also has reduced the probability of a conventional war that could jeopardize Western Europe's and Japan's access to Middle East oil.

Finding

Since the previous Section 232 petroleum finding in 1988, there have been some improvements in U.S. energy security. The breakup of the Soviet Union and the apparent disarray within OPEC have enhanced U.S. energy security. Lower oil prices on balance benefitted the U.S. economy. However, the reduction in

exploration, dwindling reserves, falling production, and the relatively high cost of U.S. production all point toward a contraction of the U.S. petroleum industry and increasing imports from OPEC sources. Growing import dependence, in turn, increases U.S. vulnerability to a supply disruption because non-OPEC sources lack surge production capacity; and there are at present no substitutes for oil-based transportation fuels. Given the above factors, the Department finds that petroleum imports threaten to impair the national security.

Recommendation

The Department does not recommend that the President use his authority under Section 232 to adjust imports. The Clinton Administration's other efforts to improve U.S. energy security are more appropriate than an import adjustment.

Section 232 requires the Secretary of Commerce and the President to recognize the close relationship between the economic welfare of the nation and U.S. national security. As energy security affects the economic welfare of the U.S., energy security must be considered in determining the effects on the national security of petroleum imports.

The Department concurs with the conclusions of the 1988 study that, on balance, the costs to the national security of an oil import adjustment outweigh the potential benefits. For example, an oil import adjustment such as a tariff would likely have an inflationary effect on the economy and would result in the loss of significant jobs in the nonpetroleum sectors. This, in turn, would reduce real Gross National Product (GNP). An import adjustment would diminish the competitiveness of energy-intensive export companies and strain relations with close trading partners who may seek an exemption from the adjustment.

The Clinton Administration recognizes the importance of U.S. energy security and is pursuing a series of policies to enhance that security. It is important to note that no cost-effective government action could eliminate U.S. dependence on foreign oil entirely, but the following supply enhancement and energy conservation and efficiency policies help limit that dependence. Thus, the Department recommends continuing the policies described below:

- o Increased Investment in Energy Efficiency - The Administration increased the budgets substantially over the last two years to achieve an enhanced energy efficiency level. There are extensive programs underway ranging from developing new appliance standards to working on innovative workplace solutions to decrease long-distance commuting. The goals of these extensive energy efficiency programs are to decrease consumption of oil.

- Increased Investment in Alternative Fuels - The Administration placed particular emphasis on improving the efficiency of the transportation sector where oil comprises about 98 percent of the fuel utilization. The Administration is among other things initiating a partnership with automobile manufacturers to design more energy efficient automobiles and developing a program to bring alternative transportation fuels and vehicles into the marketplace. These actions will reduce direct consumption of petroleum-based transportation fuels so that the need for imports will decrease.
- Increased Government Investment in Technology - The Administration more than doubled its investment with American industry in advanced technologies for the exploration and production of natural gas and oil. This is important because technological innovation can significantly decrease the domestic finding costs for natural gas and oil, thereby maintaining and expanding the domestic resource base and improving its economics.
- Expanded Utilization of Natural Gas - The Administration aggressively promoted expanded markets for natural gas at the expense of imported oil. In addition, reliance upon natural gas as one of the cornerstones of our Climate Change Action Plan provides benefits to our environment through the reduction of greenhouse gas emissions.
- Increased Government Investment in Renewables - The Administration increased investment in renewable resources because they offer great hope of replacing imported oil in selected end uses.
- Increased Government Regulatory Efficiency - The Administration is reducing the red tape and regulations that burden domestic industries. Various government agencies are conducting sweeping reviews to make their regulatory structures more responsive to domestic concerns.
- Increased Emphasis on Free Trade and U.S. Exports - Free trade, privatization, and promotion of American exports helps develop the world's energy resources and prevent overreliance on any single region of the world. These actions include: assisting energy conservation efforts and the development of new energy supplies in this hemisphere and other areas friendly to the United States.
- Maintaining the Strategic Petroleum Reserve - The Strategic Petroleum Reserve is the nation's stockpile of crude oil available in the event of an oil supply disruption. The 580 million barrels of crude oil under government ownership and control provides a bulwark against a supply disruption.

- Coordinating Emergency Cooperation Measures - The United States is coordinating oil emergency cooperation among the energy consuming countries through the International Energy Agency. Discussions are continuing to strengthen the existing market-oriented coordinated energy response measures for dealing with possible future disruptions.

SECTION I. INTRODUCTION AND METHODOLOGY

A. Introduction

On March 11, 1994, the Department of Commerce (the Department) received a petition under Section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. Section 1862 (1988)), to initiate an investigation of the impact on the national security of imports of crude oil and refined petroleum imports.¹ The petition was filed by the Independent Petroleum Association of America (IPAA) (the petitioner) which represents a broad coalition of approximately 5,500 individuals and oil and natural gas producing companies involved in the exploration, development, and production of crude oil and natural gas in the United States. Also joining this petition were 31 domestic industry associations, companies, and individuals representing producers, royalty owners, drilling equipment manufacturers, field equipment suppliers, drilling contractors, and oil production service firms.

On April 5, 1994, the Department initiated the investigation. On April 12, 1994, published a notice in the Federal Register announcing initiation of the investigation and soliciting public comments. On May 11, 1994, the Department published a second notice in the Federal Register announcing public hearings and inviting public participation. Copies of the Federal Register notices are shown in Appendix A.

During the comment period, 69 interested parties submitted comments, including 53 witnesses who testified at the public hearings. A listing of the witnesses and a summary of their comments and testimony are included in Appendix B.

Under Section 232, the Department has 270 days from the date of initiation of an investigation to submit a report of findings and recommendations to the President. Therefore, this report is due to the President on December 31, 1994.

B. Summary of the Petition

The IPAA petition made the following allegations:

- o The energy security of the United States has worsened since 1988 because oil imports have grown both in absolute terms and as a percentage of U.S. oil consumption.
- o U.S. dependence on unreliable Persian Gulf suppliers has risen substantially and will continue to increase.
- o U.S. oil production has declined significantly. Domestic exploration, drilling, and oil reserves are at very low

levels compared to when the Department last conducted its investigation in 1988.

- o Low-priced oil imports will erode the domestic industry, especially in employment. The decline in industry activity has resulted in the loss of a substantial number of jobs in oil and natural gas extraction activities.
- o Increased reliance on low-priced oil imports will leave the United States vulnerable to a supply disruption and the resulting costs to the economy.

C. Criteria for Reviewing the Petition

Pursuant to Section 705.4 of the National Security Industrial Base Regulations (U.S. C.F.R. Section 705.4 (1994)), the Department considered the following regulatory criteria in determining the affect of imports on the national security:

- (1) domestic production needed for projected national defense requirements;
- (2) the capacity of domestic industries to meet projected national defense requirements;
- (3) the existing and anticipated availabilities of human resources, products, raw materials, production, equipment and facilities, and other supplies and services essential to the national defense;
- (4) the growth requirements of domestic industries to meet national defense requirements and the supplies and services including the investment, exploration and development necessary to assure such growth;
- (5) the impact of foreign competition on the economic welfare of any domestic industry essential to our national security;
- (6) the displacement of any domestic products causing substantial unemployment, decrease in the revenues to government, loss of investment or specialized skills and productive capacity, or other serious effects; and
- (7) any other relevant factors causing or will cause a weakening of our national economy.

D. Methodology for Interagency Study Process

The Department chaired an interagency working group that included the Departments of Energy, Interior, Defense, Labor, State, and Treasury, the Office of Management and Budget, the Council of

Economic Advisors, and the U.S. Trade Representative. This report is based on a number of agreed-upon economic assumptions including, inter alia, crude oil price levels, U.S. crude oil production, economic growth rates, and inflation.

The Department used a two-step process to evaluate the petition.

Step 1: Review Key Factors From the 1988 Investigation:

The Department reviewed the factors examined in the 1988 investigation to determine whether they improved or deteriorated. This provided benchmarks against which to assess the economic health of the domestic oil industry and our national security. These benchmarks included: 1) domestic oil reserves; 2) domestic oil production and exploration; 3) industry employment; 4) impact of low oil prices on the economy; 5) the status of the domestic oil industry; 6) oil import dependence; 7) import vulnerability, including measures to offset an oil supply disruption; 8) foreign policy flexibility; and, 9) U.S. military requirements.

Step 2: Evaluate New Factors:

The Department identified and evaluated three new factors that emerged since the 1988 investigation: 1) the status of OPEC; 2) oil price transparency due to the emergence of a futures market; and, 3) the demise of the Soviet Union.

In conducting this assessment, the Department relied upon the extensive body of data available on the world oil market and on the U.S. petroleum industry. Specifically, the Department drew heavily from data in the Annual Energy Outlook and International Energy Outlook, published by the Energy Information Administration, U.S. Department of Energy, and from data submitted by the petitioner. In view of this extensive body of available data, the Department determined that an industry survey was not necessary. The Department also drew upon the written comments and testimony from interested parties who participated in the public hearings.

E. Commodities to be Investigated

The commodities investigated for this study include crude oil and refined petroleum products. Crude oil is listed in the Harmonized Tariff Schedule (HTS) of the United States under HTS classification numbers 27100005-0 (crude oil testing under 25 degrees API) and 27100010-0 (crude oil testing 25 degrees API or more).²

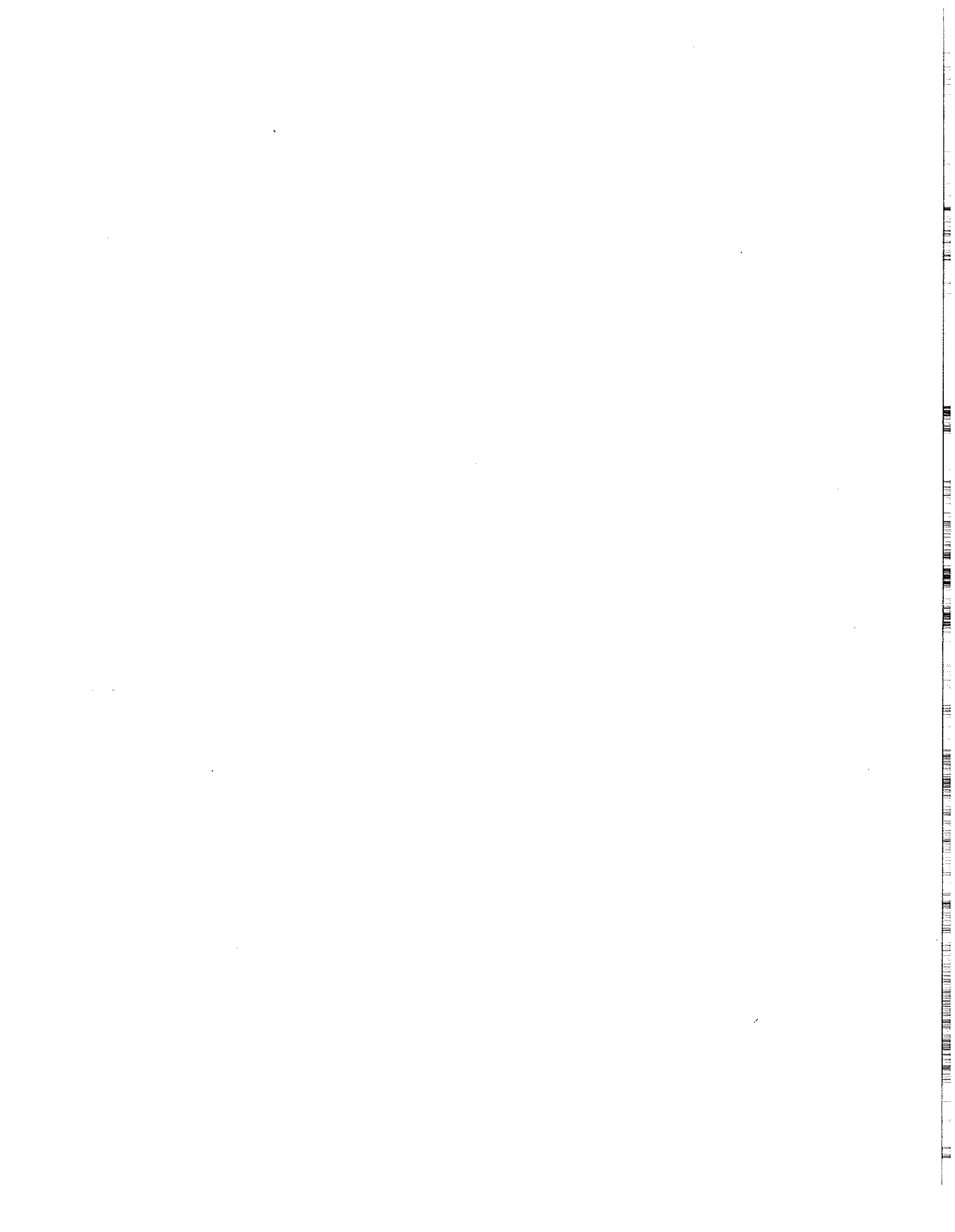
The following refined petroleum products are listed under these HTS classification numbers:

| | |
|--|---|
| 27100015-0 | Motor fuel, including both leaded and unleaded gasoline; naphtha-type jet fuel, and kerosene-type jet fuel. |
| 27100020-0 | Kerosene derived from petroleum, shale oil, or both (except motor fuel). |
| 27100025-0 36061000-1 | Naphthas derived from petroleum, shale oil, natural gas, or combinations thereof (except motor fuel). |
| 27100045-2 | Mineral oil or medicinal-grade derived from petroleum, shale oil, or both. |
| 27100030-0 34031110-3 34031150-3 34031910-0 34031110-3 34031150-3 34031950-1 27100040-0 34031110-3 34031150-3 34031950-1 | Lubricating oils and greases derived from petroleum, shale oil, or both, with or without additives. |
| 27100045-2 27121000-0 27132000-0 27139000-0 | Mixtures of hydrocarbons not specifically provided for, derived wholly from petroleum, shale oil, natural gas, or combinations thereof, which contain by weight not over 50 percent of any single hydrocarbon compound. |
| 27122000-0 27129020-0 34049050-0 | Paraffin and other petroleum waxes. |
| 27040000-2 27131200-0 | Petroleum coke. |
| 38011050-0 | Asphaltum, bitumen, and limestone rock asphalt. |

Endnotes

1. Letter from George Alcorn, President of the Independent Petroleum Association of America (IPAA), to Ronald H. Brown, Secretary of Commerce, dated March 11, 1994 (hereinafter referred to as the petition). On December 6, 1993, the IPAA filed an emergency petition on the basis of an affirmative determination that President Reagan made on January 3, 1989. On January 24, 1994, the Department advised IPAA that the Omnibus Trade and Competitiveness Act of 1988 amended Section 232 (c) (1) (B) to preclude the President from taking action later than 15 days after the presidential determination on which such an action is based. Therefore, the 1988 amendment did not permit the President to initiate action five years after such a determination. The Department also stated that IPAA may request a new investigation and incorporate by reference any material submitted with its December 6, 1993 petition. The March 11, 1994 petition incorporates the materials the IPAA submitted as part of its December 6, 1993 submission to the Secretary of Commerce.

2. American Petroleum Institute (API) gravity is an arbitrary scale expressing the density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API. It is an accepted standard in the petroleum industry.



SECTION II. CURRENT U.S. ENERGY ASSESSMENT

The national security and economic health of the domestic oil industry differ today from 1988 when the Department conducted the last national security investigation.

This section evaluates the national security implications of U.S. dependence on imported oil in order to address the allegations raised by the petitioner. As noted in Section I, this section employs a two-step methodology which reviews the factors the Department examined in 1988 to determine whether they improved or deteriorated and evaluates any new factors that have emerged since 1988. The Department also drew upon the written comments and testimony from interested parties who participated in the public hearings and from analyses provided by the interagency working group.

Review of Key Factors From the 1988 Investigation

1. Domestic Oil Reserves

1988 Investigation: The Department found that the United States had modest oil reserves relative to current and projected production because we depleted a large share of the reserves. At that time, the Department recommended the exploration and development of important geological prospects in Alaska and on the Outer Continental Shelf to stem the decline in U.S. reserves and production.

Current Petition: The petitioner alleged that low-priced oil imports (hereinafter low oil prices) were largely responsible for the decline in domestic oil reserves, stating that if prices remain stable at approximately \$20 per barrel, the U.S. would have a large recoverable oil resource base.

A witness at one of the public hearings disagreed with the petitioner's assertion that low-priced imports were responsible for the rapidly declining reserves base.

The production decline was primarily of a geological nature and thus could not have been reversed or arrested through government policy.¹

Department Review: The Department found that U.S. proved reserves of crude oil dropped from 26.8 billion barrels in 1988 to 23.0 billion barrels in 1993. However, imports are not solely responsible for the declining resource base. The United States has a modest amount of proved reserves relative to world reserves and domestic consumption. Table II-1 shows that U.S. proved reserves of 23.0 billion barrels account for only 2.3 percent of

the world's proved reserves. However, in 1992, the U.S. accounted for 26 percent of world consumption.²

On the other hand, OPEC accounts for 77 percent of the total world reserves of 999 billion barrels. The six Persian Gulf countries have proved oil reserves of 662.9 billion barrels. While proved U.S. reserves declined by approximately 3.8 billion barrels since 1987, OPEC's reserves increased by 95.5 billion barrels.

This reserves situation in the U.S. is not surprising when one considers that the United States was one of the first countries to produce oil; and for many years, was the world's largest producer. The United States is the most heavily explored petroleum-bearing region in the world. Prior to 1986, approximately 80 percent of all wells drilled worldwide were drilled in the United States.³ According to the Department of Energy, U.S. companies produced 167 billion barrels of oil and 830.4 trillion cubic feet of natural gas through 1992.⁴

In recent years exploration for oil in the United States has not been very successful. Energy Department data show that between 1987 and 1993 over 82 percent of additions to oil reserves came from revisions and extensions of existing oil fields and new reservoir discoveries in old fields rather than from exploration and discovery of new fields.⁵ There remain some important oil prospects in Alaska and the Outer Continental Shelf, but the U.S. Congress prohibited exploration and development of these potentially productive areas because of environmental concerns. In addition, a large share of the oil reserves potential the petitioner discussed at the public hearing in Dallas is not recoverable at current prices and technology.

Conclusion: Low oil prices contribute to, but are not totally responsible for, the erosion of the U.S. oil reserves base. The underlying physical reality is that the United States already developed the bulk of its easily accessible low cost deposits and decided against developing other geological prospects such as the Arctic National Wildlife Refuge and the Outer Continental Shelf. Since the reserves base reflects the structural geological reality, given present technology, oil price increases at best can arrest but not reverse this trend.

2. U.S. Oil Production

1988 Investigation: The Department found that the United States was a high-cost producer compared to other countries because we have already extracted the bulk of our low-cost easily accessible reserves.

Current Petition: The petitioner alleged that low oil prices are responsible for the decline in U.S. production.

Department Review: The Department found that U.S. crude oil production has been falling since 1970. Table II-2 shows that production declined by 2.7 million barrels per day (MB/D) over the past 23 years and by 1.4 MB/D between the 1988 investigation and 1993.

Consistent with established natural resource extraction practices, U.S. companies exploited the bulk of the easily accessible reserves and then began to develop the smaller and more costly oil deposits. The companies made use of productivity gains resulting from advances in drilling technology, but they could not offset the higher per-barrel costs associated with smaller fields and more complicated geology. The following factors explain why oil production in the U.S. is high:

- o Production rates are low by world standards, averaging 12.5 barrels per day per well on average. (If we count only the lower 48 states, this figure further declines to 9.5 barrels per day per well). Iran, Iraq, and Saudi Arabia can produce approximately 8,000 barrels per day per well.⁶
- o Finding costs of \$6.88 per barrel are high compared with average Middle East costs of \$3.84 per barrel.⁷
- o Estimated production cost is \$15 to \$20 per barrel compared to less than \$1 per barrel for Iran, Iraq, and Saudi Arabia.⁸
- o Proved reserves of 23.0 billion barrels are small compared with Saudi Arabian, Iranian, and Iraqi reserves of 261, 93, and 100 billion barrels, respectively.⁹ The bulk of their reserves are in easily accessible, large fields; whereas the remaining U.S. reserves are likely to be in small onshore deposits, expensive offshore, and Arctic frontier areas.

These circumstances placed U.S. producers in a classic "cost-price squeeze" when world oil prices dropped 50 percent in 1986. Table II-3 shows that the landed cost of imported crude oil dropped 50 percent, from \$26.67 per barrel to \$13.49 per barrel, between 1985 and 1986. The landed price climbed back to \$21.13 in 1990, largely in response to the Iraq-Kuwait conflict; but it fell to \$15.76 by 1993. In November-December 1993, the landed cost of imports fell to \$13.01 per barrel.

The cost-price squeeze triggered by falling oil prices had severe consequences for the level of U.S. production and import dependence. Since 1986, it contributed to a 1.7 MB/D decline in U.S. production and a 2.1 MB/D increase in net imports.

This situation also poses problems for current and projected U.S. production and imports. First, when world oil prices are at \$18 to \$20 per barrel, U.S. production costs of \$15 to \$20 per barrel constrain the exploration and development of new reserves, particularly in the deep waters of the Gulf of Mexico. Second, small companies may cut back on operations or go out of business because low profitability makes it difficult for them to attract capital funds for exploration and development. Third, the firms that remain in business are likely to suffer because they lack the cash flow to maintain existing wells, conduct new exploration, or to develop small producing properties. Fourth, companies are increasingly unable to replace proved oil reserves; and domestic production continues to decline. In turn, U.S. companies will purchase more foreign crude to offset falling domestic production and to meet growing demand.

Conclusion: The production outlook remains essentially the same as in the 1988 investigation. The United States is a high-cost producer compared to other countries because we have already depleted our known low-cost reserves. Since 1986, low oil prices exacerbated the cost-price squeeze facing U.S. producers. U.S. production declined substantially and net imports increased. The dislocation also undercut U.S. exploration activities and impaired the development of competing energy sources, thereby enabling OPEC to recapture part of the market it lost after the price shocks of the late 1970s.

3. Exploration and Industry Employment

1988 Investigation: The Department found that low oil prices caused companies to reduce exploratory drilling and cutback on the number of oil field workers.

Current Petition: The petitioner alleged that low oil prices are responsible for the massive falloff in drilling and in industry employment.

These tremendous price declines strike directly at independent producers because all of their revenues come from the sale of oil and natural gas at the wellhead. Unlike major integrated firms, independents cannot depend on profits made in other operations such as transportation, refining, marketing, or international operations. Price volatility also adds to market uncertainty, thereby eroding the confidence of investors, financial institutions, and corporate planners whose decisions directly affect exploration and development budgets for the domestic industry.¹⁰

As an exploration and production company, the oil price instability of the past nine years has caused us to reduce

our exploration budget from over \$2,000,000 to less than \$500,000. The low oil price has caused abandonment of dozens of our stripper wells and has stopped the implementation of secondary recovery projects capable of producing hundreds of thousands of barrels of oil.¹¹

Department Review: The Department found a sharp reduction in U.S. drilling and employment between 1985 and 1993 (see Table II-4):

- o exploratory drilling declined from 312 million feet in 1985 to 127.7 million feet in 1992;
- o total wells completed dropped from 69,170 in 1985 to 23,959 in 1993;
- o the number of rotary rigs in use for oil and gas exploration dropped from 1,980 in 1985 to 754 in 1993; and,
- o employment fell from 582,000 in 1985 to approximately 351,000 in 1993.¹² The Department of Labor determined that a large share of the lost jobs occurred in the petroleum exploration and development sectors.

However, oil imports are not the only reason for the decline in exploratory drilling and well completions. U.S. companies are drilling less because they find more oil per foot drilled than they did in the past. For example, between 1986 and 1992, the U.S. oil industry achieved productivity gains that increased the finding rate from 8 barrels per foot drilled to approximately 12.5 barrels per foot drilled.¹³ The U.S. oil and gas industry made substantial gains in total productivity because they employed new exploration and drilling technology and focused on the most productive geological opportunities. The Energy Department found that U.S. companies more-than-doubled their productivity in terms of exploratory drilling for well extensions and discoveries of oil and gas.¹⁴

Conclusion: Advances in technology as well as low oil prices contributed to the large drop in industry employment and exploratory drilling.

4. The Impact on the Economy of Low Oil Prices

1988 Investigation: The Department found that low oil prices yielded positive benefits for the economy.

Current Petition: The petitioner did not specifically address the benefits to the economy of low oil prices.

Department Review: The Department found that the economic consequences of low prices resulted in positive benefits to the U.S. economy. Because the United States is now a net importer of oil, lower prices on balance helped the economy. The public benefitted from lower prices for transportation fuels and heating oil. For the economy as a whole, these lower prices contributed to a reduction in inflation, a rise in real disposable income, and an increase in the Gross Domestic Product (GDP).

The Energy Department found that oil and gas consumption in the U.S. is heavily concentrated within five manufacturing sectors: chemicals; paper; stone, clay and glass; primary metals; and refining.¹⁵ In 1988, these manufacturing sectors accounted for 78 percent of U.S. consumption of oil and gas. Energy costs represent a major component for manufacturers, and these industries have benefitted from reduced prices for their supplies. At the public hearings, the Petrochemical Energy Group stated:

Any action, such as the imposition of an oil import fee or quota, that would increase the price of U.S. petrochemical products, would create a subsidy for foreign producers. The ultimate result of this foreign producer subsidy would be a substantial loss of sales for U.S. producers that would, in turn, jeopardize a large number of jobs for U.S. workers and would create a further erosion in the U.S. balance of trade.¹⁶

Conclusion: Since 1986, low oil prices have yielded large positive benefits to the U.S. economy.

5. Current Status of the Domestic Oil Industry

1988 Investigation: The Department determined that low oil prices caused small producers to shut-in or abandon marginal wells. The Department also found that U.S. integrated oil companies began shifting their exploration efforts overseas since they were unable to access promising geological prospects or to reduce high production costs.

Current Petition: The petitioner alleged that low oil prices and the uncertainty concerning future price drops were forcing small producers to abandon many small fields prematurely. The possible loss of these reserves and production would result in increased dependence on foreign oil.

Department Review: The Department found that the major decline in prices since 1986 significantly impacted the U.S. oil industry, reducing both production and exploration, and forcing some companies to shift activities overseas.

The integrated companies responded to high costs, low prices, and the lack of access to prime exploration acreage by reducing their spending on domestic exploration and development. The American Petroleum Institute (API) found that the 18 integrated U.S. oil companies reduced spending on domestic exploration and development from \$29.9 billion in 1982 to \$7.4 billion by 1992.¹⁷ The API also stated that the large integrated companies now spend almost 65 percent of their exploration and development budgets overseas.¹⁸

A large number of integrated firms shifted their exploration efforts to non-OPEC countries. For example, Chevron is active in Canada and Kazakhstan. Phillips Petroleum is replacing its U.S. reserves at low cost by exploring in Gabon, Somalia, and New Guinea. ARCO shifted a large portion of its exploration program overseas, while Mobil is active in the Hibernia file in eastern Canada.¹⁹ Texaco signed agreements for large exploration and development projects in Russia and China.²⁰ Texaco recently announced plans to streamline its U.S. operations and sell off approximately 600 oil and gas producing properties. Domestically, the integrated companies are downsizing their exploration and production operations and emphasizing refining and marketing operations; while internationally they are emphasizing low cost, high yield exploration and production.

The Department concurs with the petitioner's allegation that the independent producer's income is dependent on the price it obtains for the crude oil sold. The small independent producers lack the diverse revenue opportunities of the integrated firms because they have no captive refining and marketing operations. In addition, the independents generally lack the capital and technical expertise to explore overseas.

The impact of low prices has been especially severe on small producers operating stripper wells. Oil wells with an average production of 15 barrels per day or less are called stripper wells. The U.S. Department of Energy estimates that in 1992 there were 478,588 stripper wells, accounting for approximately 1.4 MB/D of oil production.²¹ These wells accounted for 78 percent of all U.S. wells. At the public hearing in Dallas, the petitioner stated that stripper wells account for a large share of U.S. crude oil reserves:

According to the National Stripper Well Association there are 3.272 billion barrels of oil reserves accessed by stripper wells.²²

The National Petroleum Council's (NPC) study on "Marginal Wells" found that U.S. operators of such properties are especially at risk when oil prices decline. The NPC study found (Table II-5) that at a domestic price of \$18 per barrel, U.S. companies would not meet lease operating costs on 73,843 wells accounting for

12.6 percent of wells and 3 percent of production (61 million barrels of oil per year). This would increase to 130,691 wells accounting for 22.3 percent of wells and 7.6 percent of production (155 million barrels of oil per year) at a domestic price of \$10 per barrel.²³

An operator of stripper wells in Texas commented on the impact of low oil prices on his production:

Our average cost in producing a barrel of oil is \$11.50. Assuming a futures price of \$20 per barrel and a resultant posted price of \$18.50 for North Texas sweet crude, a \$2 drop in our price, or a 10-percent reduction, results in a net income decrease of 29 percent. A \$4 price drop, or a \$16 per barrel futures price results in a 57-percent decrease in our net.²⁴

The Department found that the price of oil also affected the exploration and development of natural gas. When petroleum producers engage in exploration, they often cannot predict whether they will find crude oil or natural gas, or both, because exploration is not oil specific. Low prices make drilling and development projects less attractive, regardless of whether the project involves crude oil or natural gas. It also creates a ceiling for natural gas prices because the two fuels compete for some of the most important end uses, the industrial boiler fuel market.

Conclusion: Low oil prices continue to exacerbate the chronic cost-squeeze problem faced by small producers. If small producers were to shut-in production because prices fall, this could result in increased dependence on foreign oil. Shutting-in production will, in turn, adversely impact the development of natural gas supplies.

6. Oil Import Dependence

1988 Investigation: The Department found that the long-term security of the United States is less promising because of the expectation of rising oil imports for the United States and the other Organization for Economic Cooperation and Development (OECD) countries.

Current Petition: The petitioner alleged that the national security of the United States worsened because oil imports have increased since 1988 both in absolute terms and as a percentage of U.S. oil consumption and our dependence on imported oil will continue.

Department Review: The petitioner's allegations concerning the trend of U.S. dependence on imported oil are accurate. The

Department found that net U.S. imports have grown from 5.9 MB/D in 1987 to 7.5 MB/D in 1993. Table II-6 shows that oil imports currently account for 44 percent of domestic consumption compared to 37 percent in 1987. The Department also found that imports from Persian Gulf countries increased from 1.07 MB/D in 1987 to 1.64 MB/D in 1993. Saudi Arabia and Kuwait accounted for the bulk of the increase, with imports growing from 642,000 B/D and 70,000 B/D, respectively, during 1987 to 1.28 MB/D and 343,000 B/D in 1993.²⁵

Based on assumptions adopted by the Energy Information Administration of the U.S. Department of Energy in making its forecasts, U.S. oil imports are likely to increase over the next decade.²⁶ During 1994, U.S. consumption of oil is expected to grow at a modest rate and reach approximately 17.7 MB/D.²⁷ Table II-7 shows that domestic oil supply is expected to decline by about 200,000 B/D to 8.4 MB/D. Net imports are expected to increase by 500,000 B/D and reach 8 MB/D. They will account for 45.2 percent of U.S. oil consumption during 1994, up from 44 percent in 1993.

The Energy Department forecasts that U.S. demand for imported oil is expected to continue growing because of declining production and increased economic growth. They project that net imports will increase to 11 MB/D by 2000 and account for approximately 51.5 percent of domestic consumption.

During 1994, total world demand (excluding the former Soviet Union) is expected to grow from 62 MB/D to 63 MB/D because of strong economic growth in the Far East and China. The increase in demand will not tax OPEC and is unlikely to lead to higher prices. This short-term outlook reflects sluggish Free World economic growth and the availability of surplus oil production capacity. If Iraq attempts to reenter the oil market in 1995 and other producers respond by expanding their own production to maintain their market share, this additional production could exert downward pressure on oil prices.

Other OECD countries are projected to increase their oil imports as well. Japan has no indigenous production and will continue to rely on imports. Western Europe's imports are likely to increase after 2000 because of growing demand and declining North Sea production. Table II-8 shows that between 1992 and 2000, world oil consumption is likely to increase to 77 MB/D. The fastest increase will occur in developing countries in Asia and Latin America. However, the OECD countries are expected to remain the largest consumers, with oil use in that group expected to grow from 39 MB/D in 1992 to approximately 45 MB/D by 2000. Oil will continue to remain the world's major energy source, accounting for 38 percent of all energy consumed.

The Energy Department also forecasts that non-OPEC production is likely to increase only slightly, from 41 MB/D in 1992, to about 42 MB/D in 2000. Table II-9 shows that OECD production is expected to remain flat at 17 MB/D. The decline in U.S. production of approximately 200,000 B/D will be offset by increasing North Sea output. Other non-OPEC producers, including Latin America, the Middle East, Africa, and Asia, will grow from 10.6 MB/D to 12.4 MB/D. Latin America will lead in production increases, followed by Asia.

The former Soviet Union and the other Republics are unlikely to expand exports substantially until 2005. Production is declining in Russia, and the other Republics' output remains flat. In the short-term, Russian demand also is falling. Russia is likely to continue reducing sales to the Republics in order to maintain hard currency exports. Barring a major increase in demand, Russian net oil exports are likely to remain in the 2.0 MB/D to 2.2 MB/D range. The future outlook is uncertain because Russia has large oil and gas resource potential but needs to upgrade its pipeline system and establish investment and trade laws that will attract foreign companies.²⁸

These consumption and production trends lead to the conclusion that world demand for OPEC (largely Persian Gulf) oil should rise from 26 MB/D in 1992 to 36 MB/D in 2000. The non-Persian Gulf producers are likely to increase production from 9.5 MB/D in 1992 to 11.2 MB/D in 2000. The Persian Gulf producers are expected to expand production capacity by 10 MB/D by the end of the decade. Iran, Iraq, Kuwait, Saudi Arabia, and United Arab Emirates (UAE) are expected to be the largest exporters. This will be the first major expansion of the vast Persian Gulf reserves discovered during the 1980's. This expansion of production will be needed to offset the decline of non-OPEC producers such as the United States.

The United States and the other OECD countries are likely to become more dependent on OPEC, particularly on the Persian Gulf members of OPEC, whose share of world crude oil exports is expected to increase from 42 percent in 1992 to 55 percent by 2000. With the exception of Venezuela, nearly all surplus production capacity is likely to be concentrated in the Persian Gulf. This forecast means that every year between 1992 and 2000 the Persian Gulf countries collectively will have to develop approximately 1.5 MB/D of crude oil production capacity to meet world demand in 2000 and beyond. This may be optimistic in light of current oil prices, capital requirements, and regional stability.

Conclusion: The Department finds that imports are expected to account for over 51 percent of U.S. oil consumption by the year 2000. The U.S. and the other OECD countries are likely to become increasingly dependent on the huge low-cost reserves of the

Persian Gulf producers that will account for approximately 55 percent of world crude oil exports by 2000.

7. Vulnerability to a Supply Disruption

1988 Investigation: The Department found that the growing import dependence of the United States increased its vulnerability to a supply disruption.

Current Petition: The petitioner alleged that "our increased reliance on low-priced oil imports will leave the United States subject to a supply disruption and resulting costs to the economy."²⁹

Department Review: The Department found that the security of the United States as well as that of the other OECD countries depends on the level of vulnerability to, and the likelihood of, significant supply disruptions (i.e., disruptions of at least 200,000 barrels per day lasting 3 months or more). The risk of a disruption is determined by the military, political, and economic situations facing the key exporting countries. The level of vulnerability is determined both by the degree to which importing countries depend on imported oil and by their ability to offset a disruption. Offsets to disruptions include the amount of available surplus global oil production capacity and oil inventories (e.g., private and government strategic stocks).

a. Risks of disruptions

The interagency group reviewed the post-World War II period and found that significant supply disruptions occurred 11 times and lesser disruptions (ranging from 100,000 B/D to 700,000 B/D) occurred at least ten times since 1951. Production losses ranged from as little as 200,000 B/D to as much as 5 MB/D.

Types: Table II-10 shows that five of the major interruptions were the result of internal political events (civil disturbances or revolutions), four were the direct result of wars, one involved a facility accident, and one was the result of the 1974 Arab oil embargo.

- o **Location:** Nine of the major interruptions occurred in the Middle East (including North Africa), and four of these occurred in the Persian Gulf.
- o **Magnitude:** Most of these disruptions were relatively small (less than 700,000 B/D), with only three disruptions of 3 MB/D or larger, and all occurred in the Persian Gulf.
- o **Duration:** Only three disruptions lasted longer than one year.

The impact of supply interruptions have varied. Most have not significantly disrupted world markets; however, three interruptions did have major economic implications:

- o The Arab oil embargo following the October 1973 Arab-Israeli War caused a loss of 1.6 MB/D in world supplies, more-than-tripled crude oil prices, and contributed to the abrupt reversal in the economies of OECD countries from about 6 percent growth in their Gross National Product (GNP) in 1973 to a GNP decline in 1975.
- o The Iranian Revolution caused losses of nearly 4 MB/D and more-than-doubled the price of crude oil between late 1978 and early 1980, and OECD members' GDP declined from 3.6 percent in 1979 to 1.3 percent in 1980.
- o Iraq's invasion of Kuwait removed almost 5 MB/D from world production (the largest disruption in history) and caused a more than 170-percent increase in prices between June and October of 1990, but the price increase was short lived because of the availability of surplus crude production capacity in Saudi Arabia and other key producing countries. In contrast to previous disruptions, OECD countries also had over 1 billion barrels in strategic stocks, which were not released during the crisis.

There are a number of unresolved regional conflicts in the Persian Gulf which could lead to war. A number of these countries are developing enhanced military capabilities that could be targeted against regional oil facilities during a conflict. An outbreak of hostilities could result in the destruction of oil production and transportation facilities (e.g., as happened in Kuwait during 1991). These developments, in turn, would eliminate production capacity, tighten supplies, and result in higher prices for consuming countries.

b. Offsets to disruptions

The ability to offset a disruption depends in large part on the availability of surge production capacity and strategic oil stocks. Surplus world production capacity declined from 9 MB/D-10 MB/D in 1988 to approximately 1 MB/D in 1992.³⁰ This decline resulted from: 1) higher demand for oil which, in turn, absorbed a large part of the Persian Gulf surplus capacity; 2) declining output in the United States; and, 3) the idling of Iraqi and Kuwaiti fields damaged during the 1991 Persian Gulf War. The Global Center for Energy Studies determined that surplus world production capacity had increased to 4 MB/D by 1994; but the bulk of the current surplus capacity is located in the Persian Gulf and Venezuela, and by 2000, most surplus capacity is likely to be located in Saudi Arabia, Iran, Iraq, Kuwait, and the Union of Arab Emirates.³¹ As noted in this section, U.S. production is

declining and there is little, if any, capacity to surge production during an emergency.

Government-owned oil stocks in all of the OECD countries declined slightly since the 1988 Commerce investigation. In 1988, the U.S. Strategic Petroleum Reserve's (SPR) inventory of 555 million barrels provided 96 days' protection based on net imports of 5.8 MB/D.³² The current SPR inventory of 590 million barrels would provide 77 days' protection based on 1993 net imports of 7.5 MB/D.³³ Similarly, other OECD countries' government-owned oil stocks declined by 27 percent from 400 million barrels in 1988 to 316 million barrels in 1992.³⁴

c. Impact on the economy

It also is necessary to consider U.S. oil requirements within the wider context of the civilian economy during a major oil supply disruption. For example, the transportation sector would experience many hardships because there are no substitutes for gasoline, diesel, and jet fuel. Despite conservation and reduced consumption resulting from higher prices, less oil would be available for civilian end uses during a major supply disruption. This, in turn, could pose hardships for the U.S. economy.

Conclusion: Political and economic problems in the Persian Gulf region make supply disruptions a possibility over the near-term. Disruptions are possible in other regions, but the risks to OECD countries are lower because oil production facilities elsewhere are not as concentrated as they are in the Persian Gulf.

The United States and the OECD countries have limited prospects to offset a major oil supply disruption because: 1) there is little surplus production outside the Persian Gulf; 2) U.S. and OECD government oil stocks today provide less protection from an interruption than was the case in 1988; and, 3) there is no substitute for liquid transportation fuels.

Interfuel substitution offers limited prospects to moderate a supply interruption because oil has limited interfuel competition. Approximately two-thirds of all oil consumption in the United States (11+ MB/D) is consumed by the transportation sector; and, at present, there are no widely available substitutes for gasoline, jet, or diesel fuel for internal combustion engines. During a major oil supply disruption, less oil would be available for civilian end uses. This could pose hardships for the U.S. economy.

However, the development of the North Sea gas fields, the Canadian gas pipeline, as well as liquefied natural gas, offers some prospects for substitution in the consumer heating and industrial boiler fuel markets. The availability of excess natural gas production/deliverability capacity would facilitate

interfuel substitution during a supply disruption. On the other hand, the substitution prospects for coal and nuclear electric power are limited because of demand and regulatory concerns.

8. Foreign Policy Flexibility

1988 Investigation: The national security risks associated with dependence on imports involve not only economic concerns, but include foreign policy flexibility.

Current Petition: The petitioner did not raise this issue in the petition.

Department Review: As the 1988 investigation noted, dependence upon unreliable sources of petroleum (i.e., subject to interruption) can constrain U.S. foreign policy flexibility.³⁵ The United States and its allies may find themselves constrained from pursuing either unilateral or multilateral foreign policy actions for fear of provoking producer countries into actions that could result in the manipulation of oil prices and increased prices for consumer countries. Further, the lack of flexibility could also impair international cooperation to avoid the bidding-up of world oil prices in the aftermath of an interruption in oil supplies (e.g., the Iranian Revolution).

Conclusion: Our allies' and trading partners' dependence on these potentially insecure sources of oil may affect their willingness to cooperate with the United States during a major oil supply disruption.

9. U.S. Military Requirements

1988 Investigation: The Department found that the United States would be able to meet both direct and indirect military requirements for petroleum during a major conventional war. However, the report noted that significant civilian austerity would be necessary to respond to decreased availability of oil.

Current Petition: The petitioner alleged that low oil prices will "even further erode the domestic industry, including its employment, technology, research and development, and available capital. This will weaken the industry's ability to surge production in the event of a crisis and will result in decreased production which leaves the United States even more vulnerable in the future."³⁶

Department Review: The Department of Defense (DOD) advised that the military requirements for petroleum fuels could be satisfied under current planning scenarios.

Conclusion: The United States would be able to meet both direct and indirect military petroleum requirements during a major conventional war or major supply disruption.

10. Other Factors

The Department also evaluated several factors that have served to improve the security of U.S. oil supplies since the 1988 investigation. Foremost among these factors are the following:

- o Status of OPEC - Low world oil prices are in large part a symptom of the apparent disarray within OPEC. The ability of OPEC to manipulate prices has been impaired because its members have been unable to coordinate production levels among themselves. The urgent financial requirements of many OPEC members has led them to compete for revenue and market share even if this meant that they accept a lower per-unit price for their resource.
- o Transparency of oil markets - The growth of the futures market into a full-fledged commodity market has made crude oil prices more transparent and less subject to manipulation. The use of computerized trading, options, and forward contracts has connected refined products and crude oil markets more closely than was the case in 1988.
- o Demise of the Soviet Union - The end of the Cold War and the breakup of the Soviet Union removed the risk of Middle East oil becoming a pawn in East-West competition. The demise of the Soviet Union also has reduced the probability of a conventional war that could jeopardize Western Europe's and Japan's access to Middle East oil.

11. Conclusions

Table II-11 shows that despite the demise of the Soviet Union and the apparent disarray within OPEC, the U.S. oil security position has eroded since 1988. The reduction in exploration, falling domestic production, dwindling reserves, relatively high cost of U.S. production, and the resulting low rates of return on investments (at current prices) point toward a contraction of the U.S. producing industry and increasing imports. Growing import dependence, in turn, increases U.S. vulnerability to a supply disruption because non-OPEC sources lack surge production capacity; and there are at present no substitutes for the transportation fuels which account for two-thirds of U.S. petroleum consumption. The above developments point toward a threat to the national security of the United States.

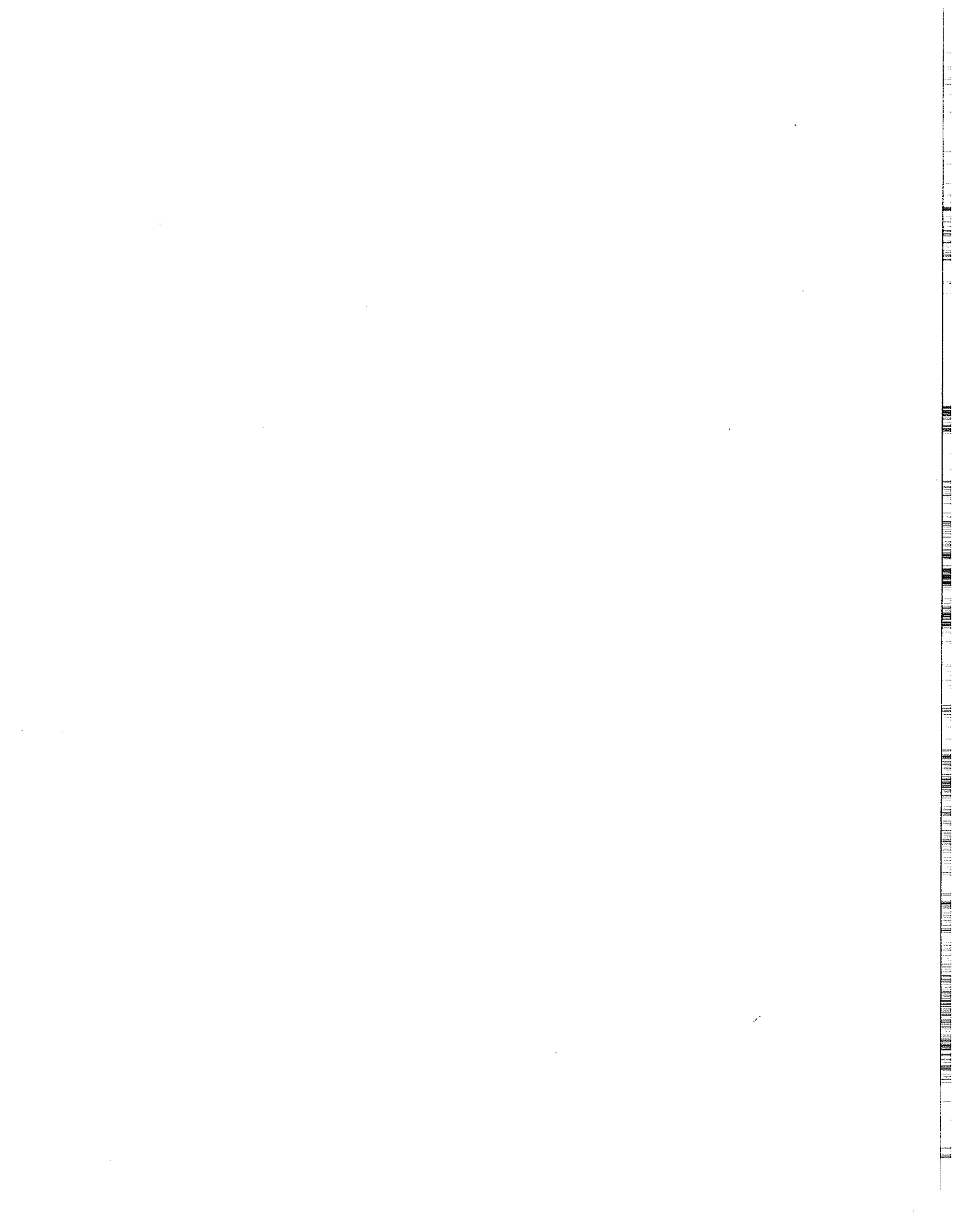


TABLE II-1
 WORLD CRUDE OIL RESERVES, 1987 AND 1994
 (Billion Barrels)

| Country | % Gain/Decline | | % share of world reserves |
|-----------------------|----------------|--------------|---------------------------|
| | 1987 | 1994 +/- | |
| North America | 82.7 | 79.8 | 8.0 |
| of which U.S. | 26.8 | 23.0 | 2.3 |
| Central/South America | 65.7 | 74.1 | 7.4 |
| Western Europe | 22.4 | 16.6 | 1.7 |
| FSU/Eastern Europe | 60.8 | 59.2 | 5.9 |
| Middle East | 564.7 | 662.9 | 66.3 |
| Africa | 55.2 | 62.0 | 6.2 |
| Far East/Oceania | 37.8 | 44.6 | 4.5 |
| Total | 889.3 | 999.2 | 100.0 |
| of which OPEC | 670.7 | 766.2 | 76.7 |
| of which Arab OPEC | 494.9 | 585.2 | 58.6 |
| of which Middle East | 564.7 | 662.9 | 66.3 |

SOURCES:

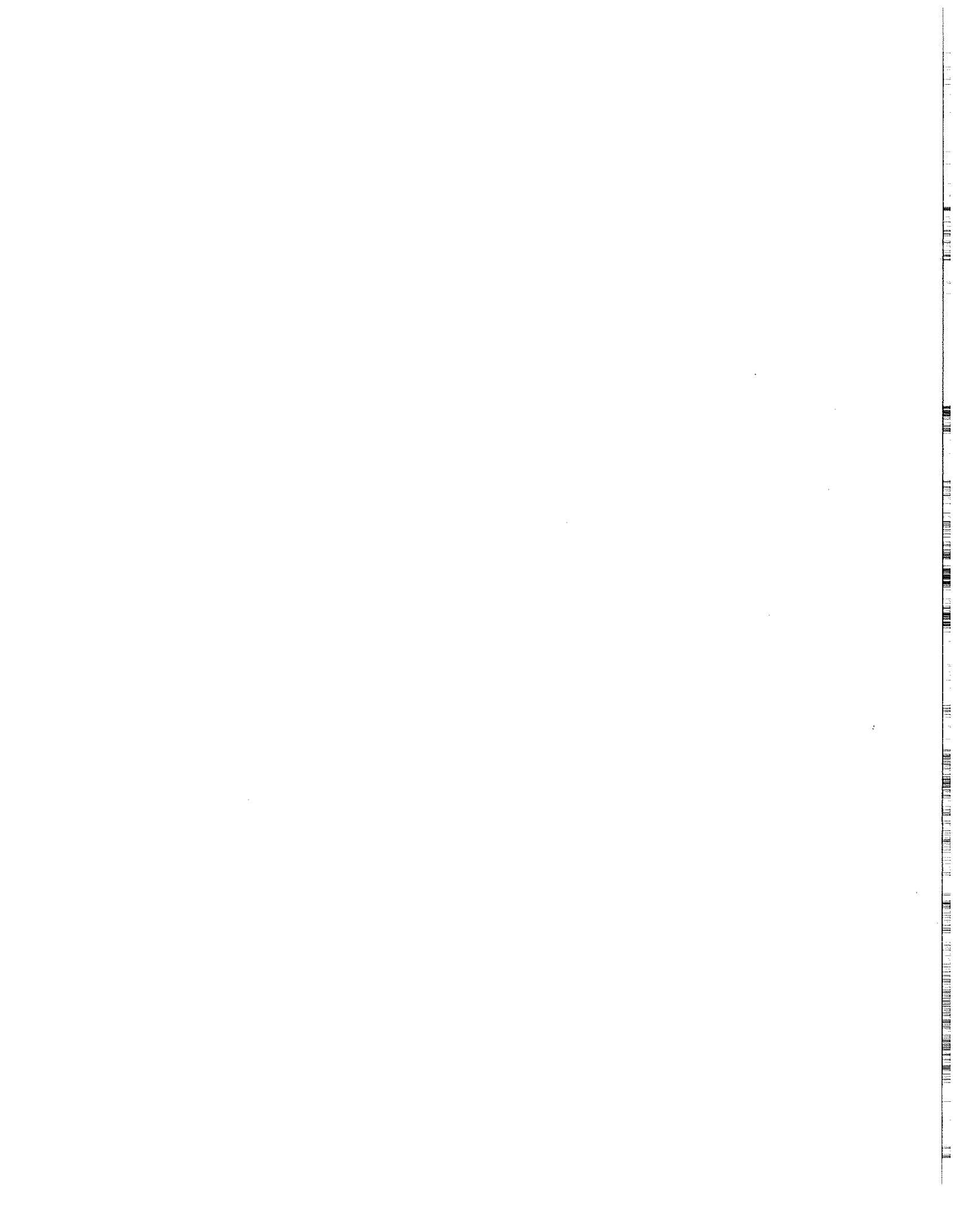
1987
 United States: U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves,
 Advance Summary for 1987, Energy Information Administration.

Other Countries: Oil and Gas Journal, December 28, 1987.

1994

United States: Advance Summary, U.S. Crude Oil, Natural Gas, and Natural Gas
 Liquids Reserves, 1993 Annual Report, Energy Information Administration, August
 1994, p. 8.

Other Countries: Oil and Gas Journal, December 27, 1993, pp. 44-45.



**TABLE II-2
PETROLEUM OVERVIEW, 1950-1993 (MILLION BARRELS PER DAY)**

| YEAR | CRUDE OIL | NATURAL GAS PLANT LIQUIDS | TOTAL PRODUCTION | OTHER DOMESTIC SUPPLY | CRUDE OIL IMPORTS | PETROLEUM PRODUCT IMPORTS | TOTAL IMPORTS | EXPORTS | NET IMPORTS | CRUDE OIL | CHANGE IN STOCKS | PETROLEUM PRODUCTS SUPPLIES |
|------|-----------|---------------------------|------------------|-----------------------|-------------------|---------------------------|---------------|---------|-------------|-----------|------------------|-----------------------------|
| 1950 | 5.41 | 0.50 | 5.91 | | 0.49 | 0.36 | 0.85 | 0.30 | 0.55 | 0.05 | 0.06 | 6.46 |
| 1955 | 6.81 | 0.77 | 7.58 | 0.04 | 0.78 | 0.47 | 1.25 | 0.37 | 0.88 | 0.04 | | 8.46 |
| 1960 | 7.04 | 0.93 | 7.97 | 0.15 | 1.02 | 0.80 | 1.82 | 0.20 | 1.62 | 0.01 | 0.08 | 9.80 |
| 1965 | 7.80 | 1.21 | 9.01 | 0.22 | 1.24 | 1.23 | 2.47 | 0.19 | 2.28 | 0.01 | 0.01 | 11.51 |
| 1970 | 9.64 | 1.66 | 11.30 | 0.35 | 1.32 | 2.10 | 3.42 | 0.26 | 3.16 | 0.01 | -0.10 | 14.70 |
| 1973 | 9.21 | 1.74 | 10.95 | 0.49 | 3.24 | 3.01 | 6.25 | 0.23 | 6.02 | 0.01 | -0.14 | 17.31 |
| 1974 | 8.77 | 1.69 | 10.46 | 0.49 | 3.48 | 2.64 | 6.12 | 0.22 | 5.89 | 0.01 | -0.18 | 16.65 |
| 1975 | 8.37 | 1.63 | 10.00 | 0.51 | 4.10 | 1.95 | 6.05 | 0.21 | 5.84 | 0.01 | -0.03 | 16.32 |
| 1980 | 8.60 | 1.57 | 10.17 | 0.68 | 5.26 | 1.65 | 6.91 | 0.54 | 6.37 | 0.01 | -0.14 | 17.06 |
| 1985 | 8.97 | 1.61 | 10.58 | 0.76 | 3.20 | 1.87 | 5.07 | 0.78 | 4.29 | | 0.10 | 15.73 |
| 1987 | 8.35 | 1.60 | 9.95 | 0.85 | 4.67 | 2.00 | 6.67 | 0.76 | 5.91 | | -0.04 | 16.67 |
| 1990 | 7.36 | 1.56 | 8.92 | 1.02 | 5.89 | 2.12 | 8.01 | 0.86 | 7.15 | | 0.11 | 16.99 |
| 1992 | 7.17 | 1.73 | 8.90 | 1.16 | 6.08 | 1.80 | 9.88 | 0.95 | 6.93 | | 0.07 | 17.03 |
| 1993 | 6.84 | 1.70 | 8.54 | 1.25 | 6.73 | 1.80 | 8.53 | 1.00 | 7.53 | | -0.15 | 17.19 |

SOURCE: Annual Energy Review, 1993, Energy Information Administration, July 1994, p. 141.

Note: Totals may not equal sum of components due to independent rounding.

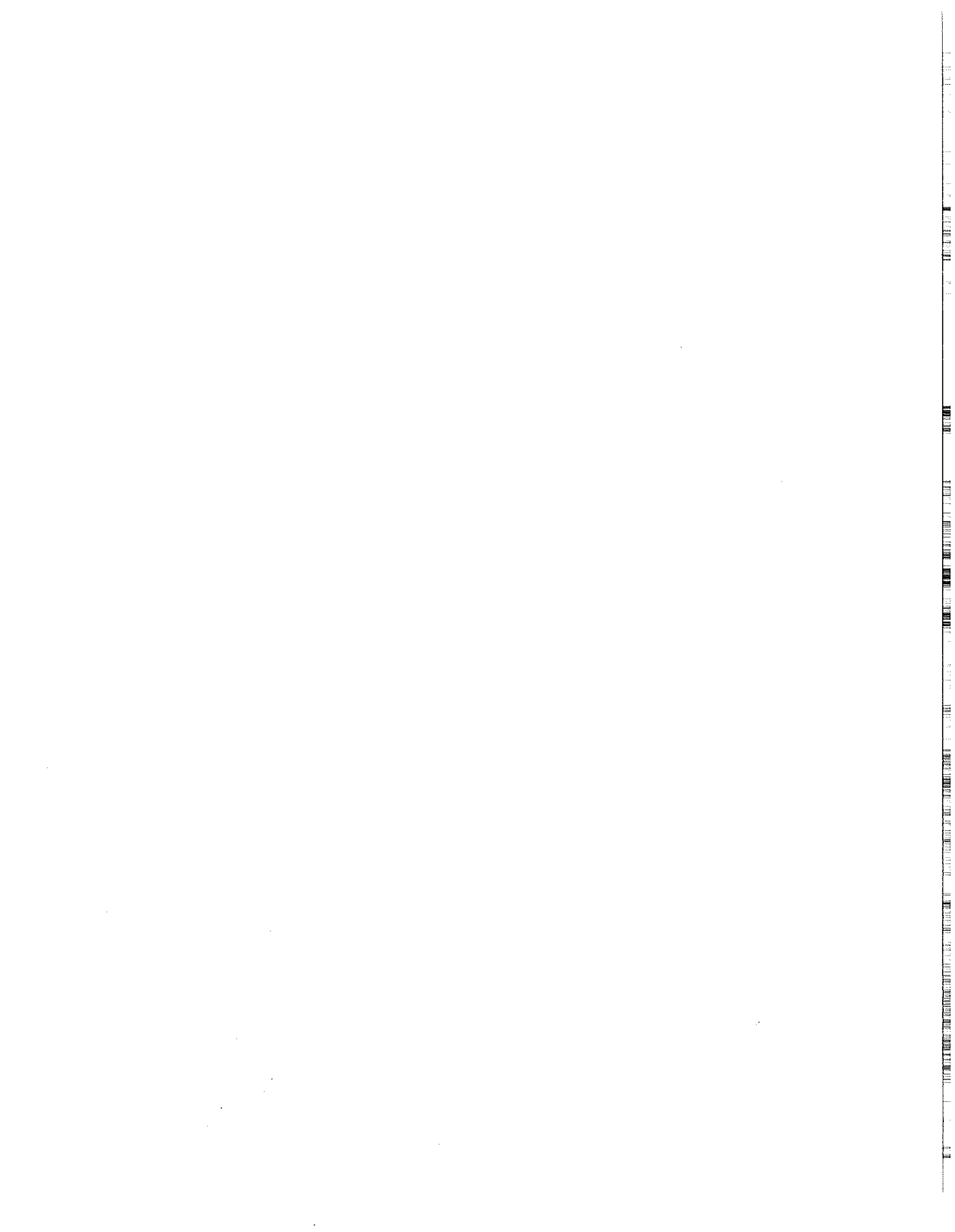


TABLE II-3
 LANDED COSTS OF U.S. CRUDE OIL IMPORTS, 1973-1993

| <u>YEAR</u> | <u>\$ PER BARREL</u> | <u>\$ VALUE OF IMPORTS (US BILLIONS)</u> |
|----------------|----------------------|--|
| 1973 | 6.41 | 7.6 |
| 1975 | 12.70 | 19.0 |
| 1980 | 33.67 | 64.9 |
| 1985 | 26.67 | 31.2 |
| 1986 | 13.49 | 20.6 |
| 1987 | 17.65 | 30.1 |
| 1988 | 14.08 | 26.3 |
| 1989 | 17.68 | 37.7 |
| 1990 | 21.13 | 45.5 |
| 1991 | 18.02 | 38.0 |
| 1992 | 17.75 | 39.5 |
| 1993 | 15.76 | 38.7 |
| Nov.-Dec. 1993 | 13.01 | |

SOURCES:

1973-1993, Annual Energy Review 1993, Energy Information Administration, April 1994, p. 175.

Nov. - Dec. 1993, Petroleum Marketing Monthly, April 1994, p. 41

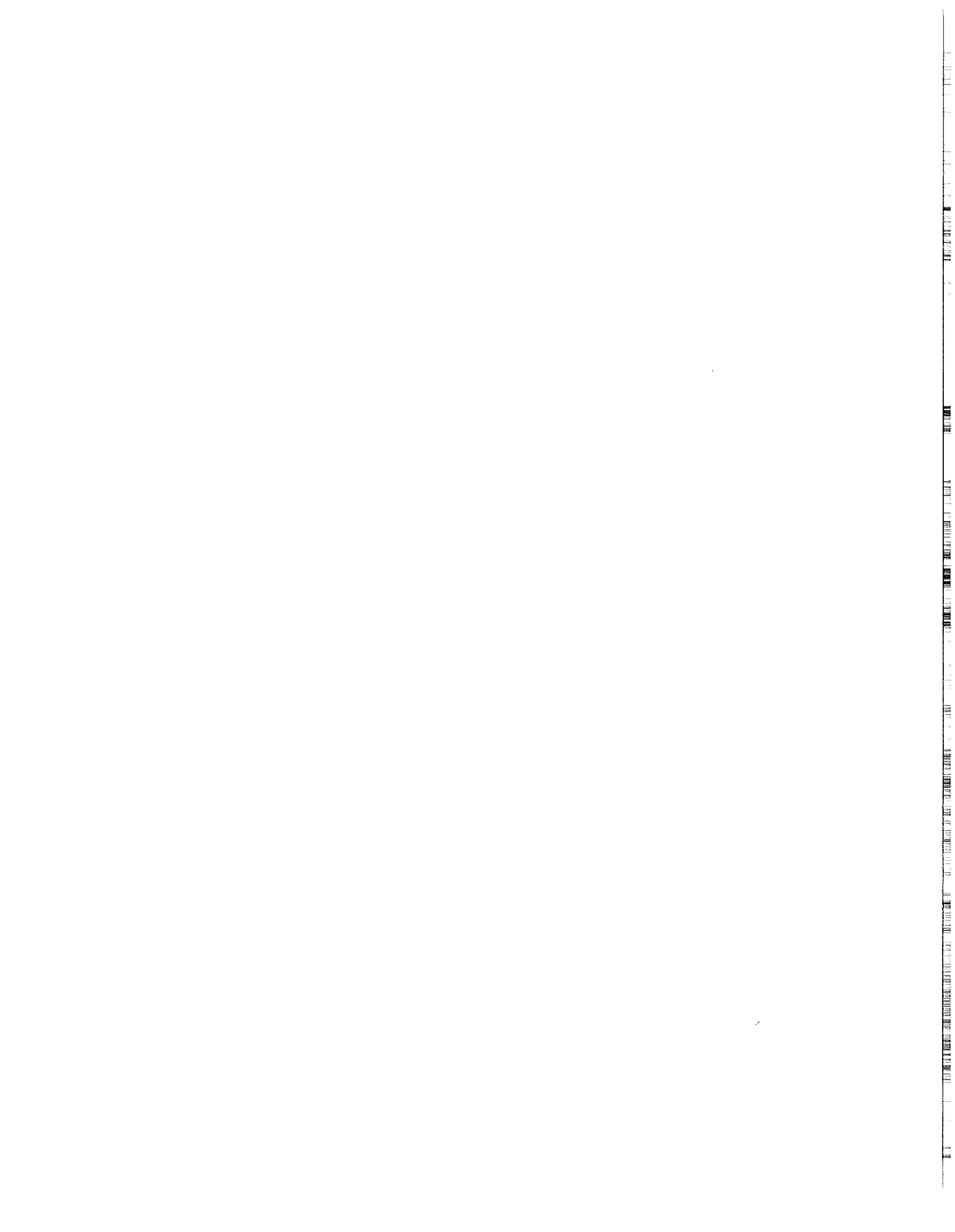


TABLE II-4
U.S. OIL INDUSTRY INDICATORS
1973-1993

| Year | Rotary Rigs in Use for Oil & Gas Exploration | Crews Engaged in Seismic Exploration (Average) | Footage Drilled (Thousand Feet) | Employment ¹ (Thousands) | Total Wells Completed (Oil, Natural Gas, Dry Hole Exploratory & Development Wells) |
|------|--|--|---------------------------------|-------------------------------------|--|
| 1973 | 1,194 | 250 | 139,427 | 273.9 | 27,692 |
| 1980 | 2,909 | 530 | 312,303 | 559.7 | 69,838 |
| 1985 | 1,980 | 378 | 312,569 | 582.0 | 69,170 |
| 1990 | 1,010 | 125 | 149,378 | 395.1 | 28,055 |
| 1992 | 721 | 76 | 120,662 | 350.3 | 23,201 |
| 1993 | 754 | 79 | 127,738 | 351.4 | 23,959 |

SOURCE: Monthly Energy Review, March 1994, pp. 80-81, Energy Information Administration, U.S. Department of Energy.

¹SIC-13, Bureau of Labor Statistics, U.S. Department of Labor.

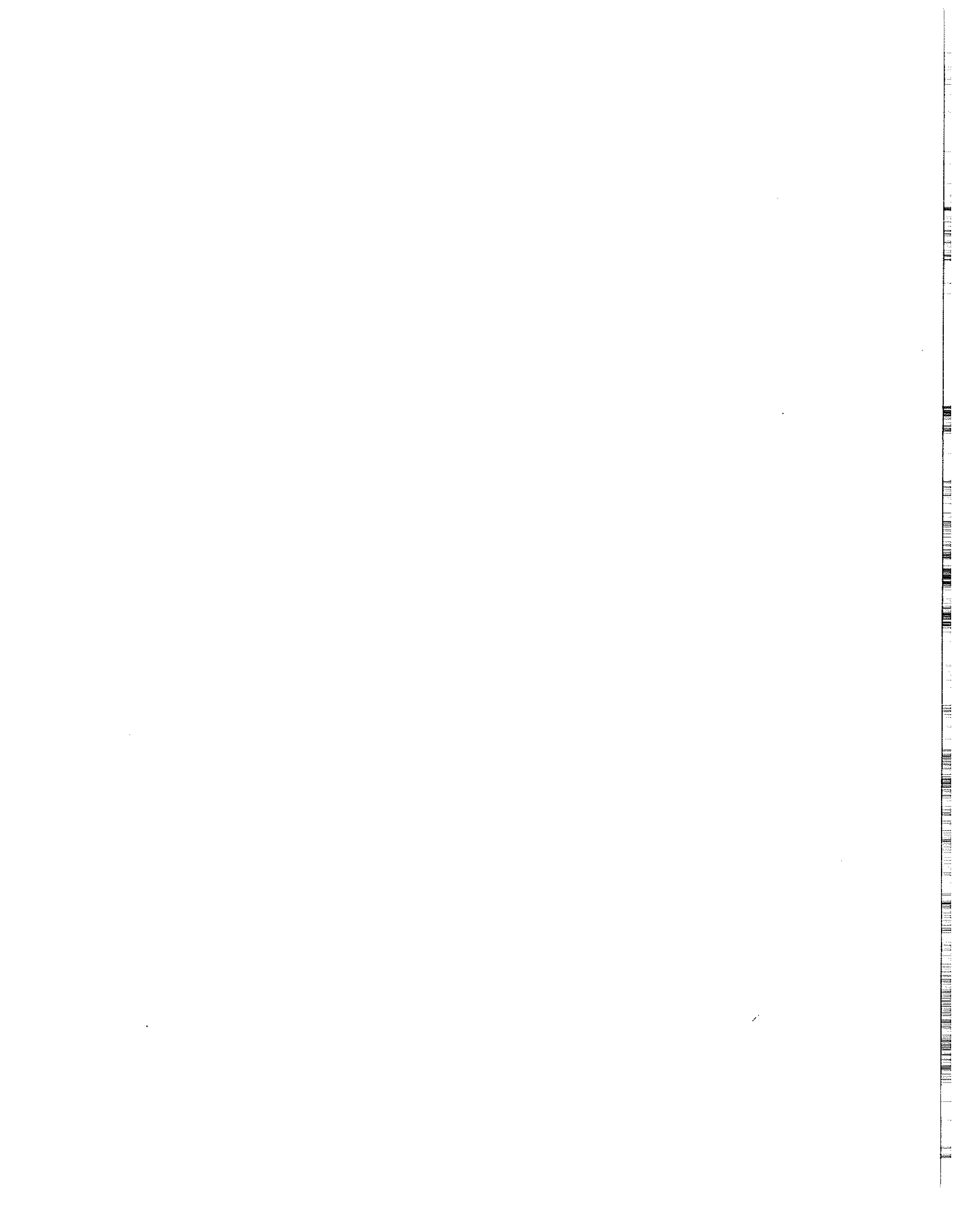


TABLE II-5
OIL WELLS AND PRODUCTION THAT DO NOT MEET LEASE OPERATING COSTS, FOR LOWER 48 STATES ONSHORE

| DOMESTIC OIL PRICE | WELLS | WELLS (%) | DAILY PRODUCTION | |
|--------------------|---------|-----------|------------------|----------------------|
| | | | THOUSAND B/D OE | PRODUCTION (PERCENT) |
| \$20 | 66,225 | 11.3 | 145 | 2.6 |
| \$18 | 73,843 | 12.6 | 167 | 3.0 |
| \$16 | 82,048 | 14.0 | 197 | 3.5 |
| \$14 | 95,527 | 16.3 | 252 | 4.5 |
| \$12 | 110,179 | 18.8 | 320 | 5.7 |
| \$10 | 130,691 | 22.3 | 425 | 7.6 |
| \$ 8 | 161,752 | 27.6 | 589 | 10.5 |

NOTE 1: Based on 586,058 wells and production of 2,045.730 million BOE in 1992.

NOTE 2: These wells can no longer produce enough income to meet normal lease operating costs.

NOTE 3: Gas production was converted to barrel oil equivalent (BOE) on the basis of 6 thousand cubic feet of gas per BOE.

NOTE 4: Oil prices vary by region, oil gravity, and sulfur content. An average domestic price of \$16 per barrel is equivalent to a West Texas Intermediate spot price of \$20.70 and a California price of \$13.60 per barrel. For each domestic price, an equivalent regional price was used to determine the economic status of oil wells.

SOURCE: Marginal Wells Study, National Petroleum Council, July 1994, p. 97.

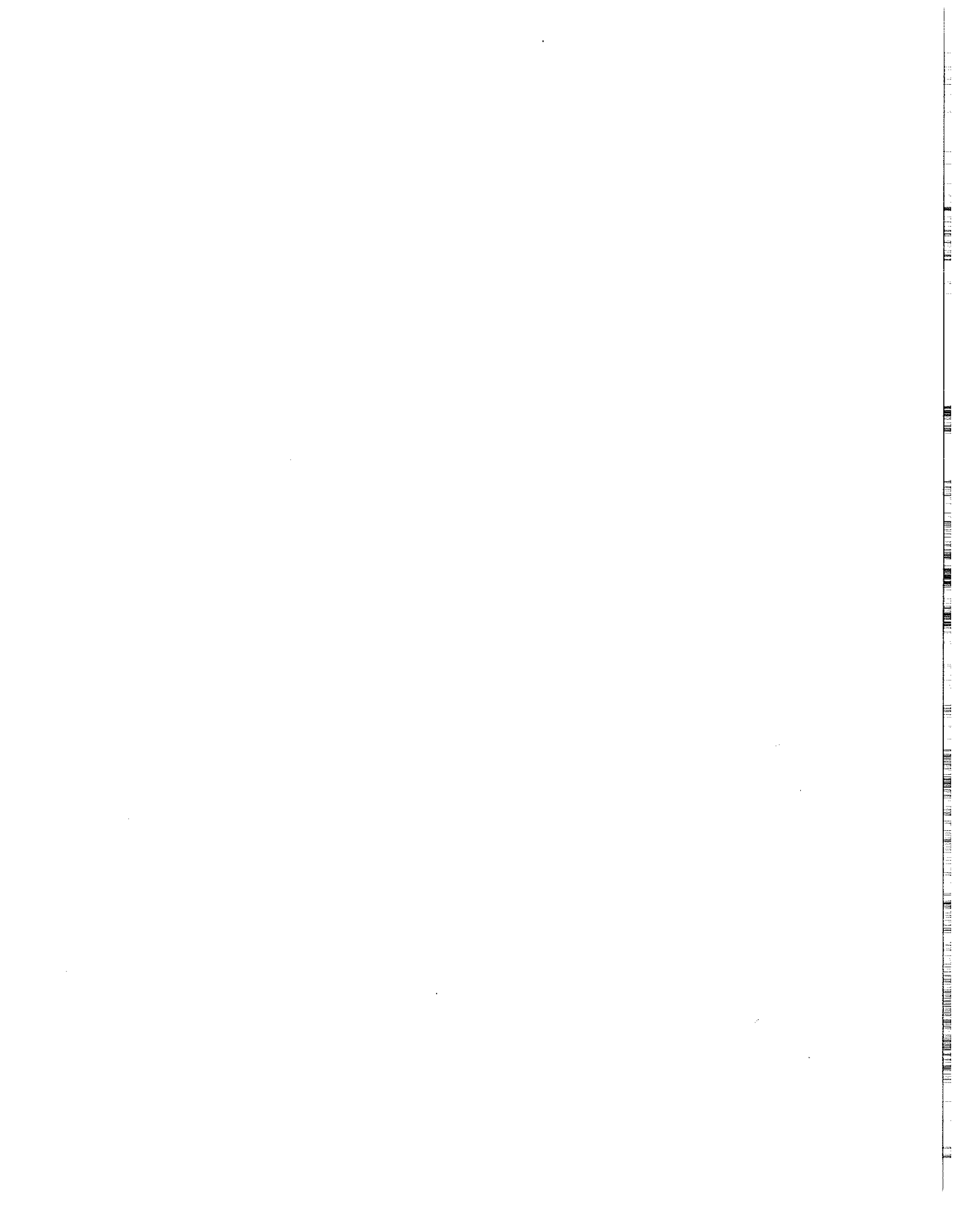


TABLE II-6
U.S. CRUDE OIL AND REFINED PRODUCT IMPORTS
1973-1993
(Thousand Barrels per Day)

| Year | Total OPEC | Total Arab OPEC | Non-OPEC Sources | Total Imports | Total Exports | Net Imports | Apparent Product Demand | Net Imports As % of Petroleum Product Supplied |
|------|------------|-----------------|------------------|---------------|---------------|-------------|-------------------------|--|
| 1973 | 2,993 | 915 | 3,263 | 6,256 | 231 | 6,025 | 17,308 | 34.8 |
| 1981 | 3,323 | 1,848 | 2,672 | 5,996 | 595 | 5,401 | 16,058 | 33.6 |
| 1985 | 1,830 | 472 | 3,237 | 5,067 | 781 | 4,286 | 15,726 | 27.3 |
| 1987 | 3,060 | 1,274 | 3,617 | 6,678 | 764 | 5,914 | 16,665 | 35.5 |
| 1988 | 3,520 | 1,839 | 3,882 | 7,402 | 815 | 6,587 | 17,283 | 38.1 |
| 1990 | 4,296 | 2,296 | 3,721 | 8,018 | 857 | 7,161 | 16,988 | 42.2 |
| 1991 | 4,092 | 2,064 | 3,535 | 7,627 | 1,001 | 6,626 | 16,714 | 39.6 |
| 1992 | 4,092 | 1,974 | 3,788 | 7,888 | 950 | 6,938 | 17,033 | 40.7 |
| 1993 | 4,331 | 1,994 | 4,196 | 8,526 | 1,003 | 7,523 | 17,193 | 43.8 |

Sources: For the years 1973-1985: Petroleum Supply Monthly, January 1988, pp. 2-9, Energy Information Administration, U.S. Department of Energy. For the years 1988-1993: Petroleum Supply Monthly, March 1994, pp. 3-15, Energy Information Administration, U.S. Department of Energy.

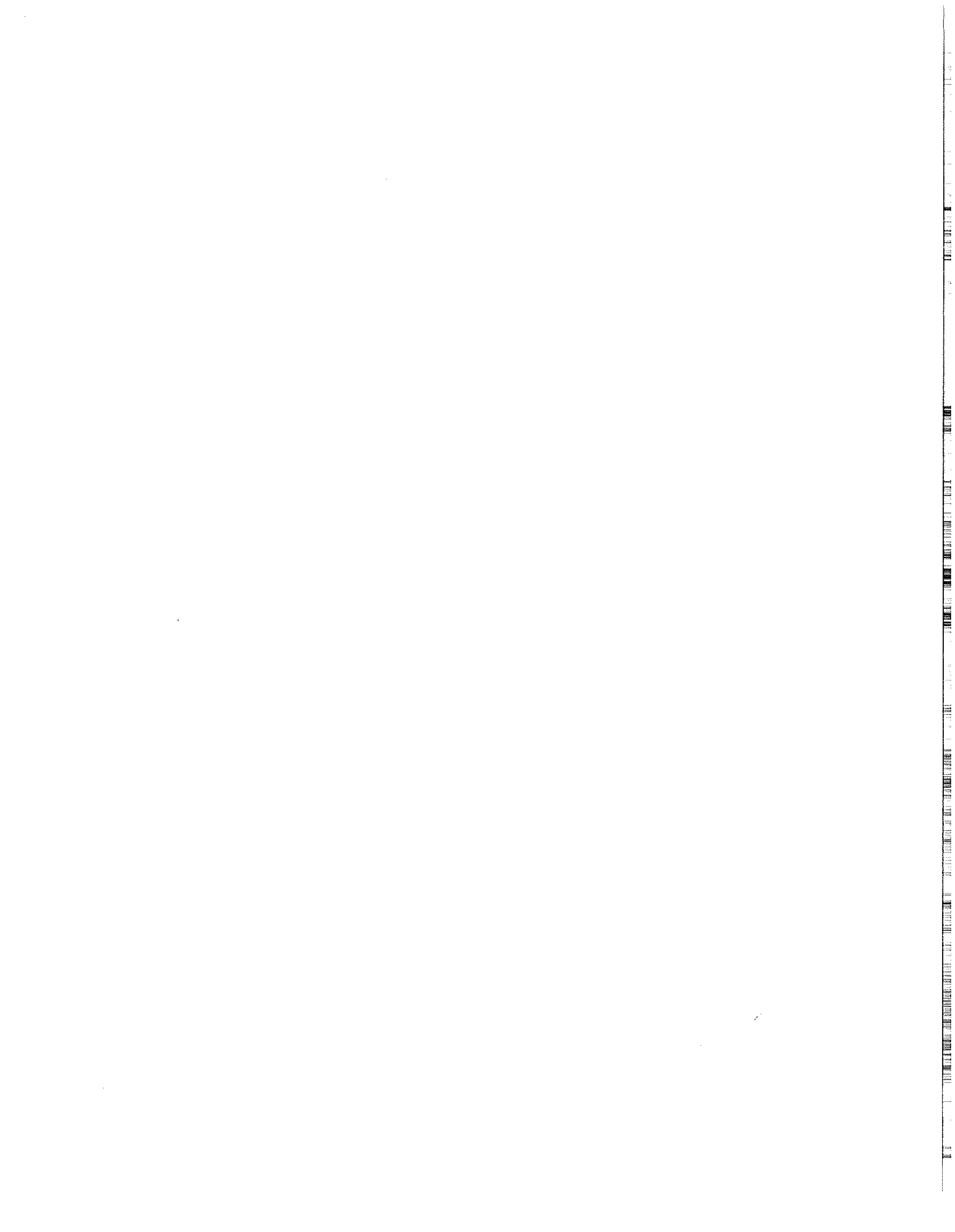


TABLE II-7
U.S. OIL OUTLOOK
(Million Barrels Per Day)

| | TOTAL DOMESTIC OIL SUPPLY ² | OIL IMPORTS ³ | NET IMPORTS | APPARENT PRODUCT DEMAND | NET IMPORTS AS % OF PETROLEUM PRODUCT |
|------|---|-----------------------------|----------------|----------------------------|--|
| 1992 | 8.9 | 7.8 | 6.938 | 17.033 | 40.7 |
| 1993 | 8.6 | 8.5 | 7.523 | 17.193 | 43.8 |
| 1994 | 8.4 | 9.2 | 8.0 | 17.7 | 45.2 |
| 2000 | 7.0 | 11.0 | 10.0 | 19.4 | 51.5 |

SOURCES:

- 1992-1993, Annual Energy Review 1993, Energy Information Administration, July 1994, p. 141.
 1994, Short-Term Energy Outlook, 2nd Quarter 1994, Energy Information Administration, May 1994, Table 7, Mid World Oil Price Case, p. 28.
 2000, Annual Energy Outlook 1994, Energy Information Administration, January 1994, Tables A-1 - A-19, pp. 55-76.

² Does not include refinery processing gains which amounted to 770,000 B/D during 1992.

³ Includes up to 100,000 B/D of annual acquisitions for the Strategic Petroleum Reserve.

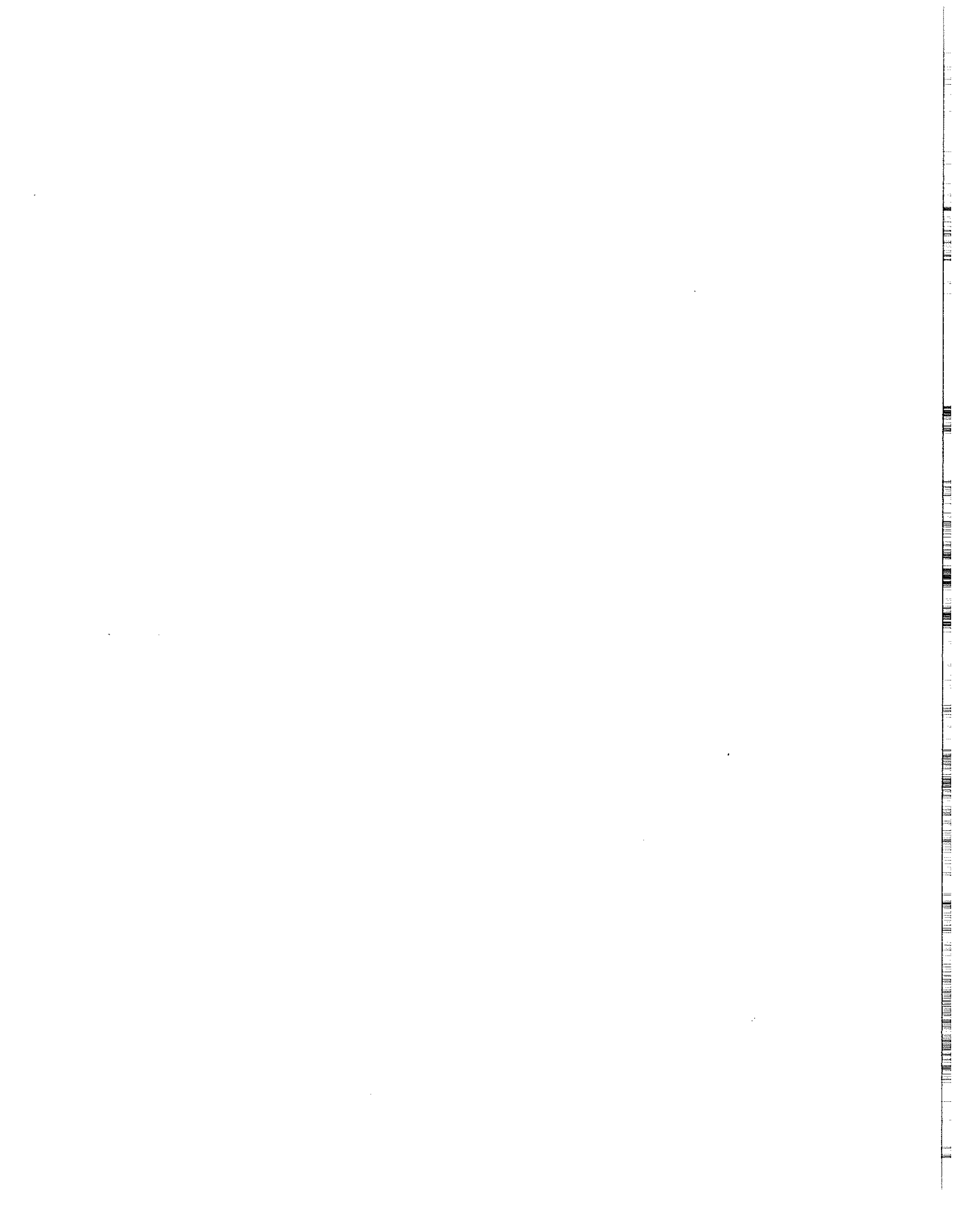


TABLE II-8
WORLD OIL CONSUMPTION AND PRODUCTION, BASE CASE
(MILLION BARRELS PER DAY)

| SUPPLY AND DISPOSITION | HISTORY | | | PROJECTION |
|----------------------------------|--------------|--------------|--------------|-------------|
| | 1990 | 1991 | 1992 | 2000 |
| PRODUCTION | | | | |
| United States ^a | 9.68 | 9.88 | 9.77 | 8.0 |
| Canada | 2.02 | 2.03 | 2.12 | 2.2 |
| OECD Europe | 4.58 | 4.81 | 5.08 | 6.4 |
| OPEC | 24.81 | 24.93 | 26.38 | 35.5 |
| Other Rest of World ^b | 11.12 | 11.43 | 11.72 | 13.0 |
| Total | 52.21 | 53.08 | 55.07 | 65.1 |
| Net Eurasia Exports | 2.17 | 1.36 | 1.58 | 1.2 |
| CONSUMPTION | | | | |
| United States ^a | 16.99 | 16.71 | 17.03 | 19.3 |
| U.S. Territories | 0.21 | 0.24 | 0.21 | 0.3 |
| Canada | 1.69 | 1.62 | 1.64 | 1.9 |
| Japan | 5.14 | 5.28 | 5.45 | 6.8 |
| Australia and New Zealand | 0.82 | 0.81 | 0.82 | 1.0 |
| OECD Europe | 12.90 | 13.38 | 13.61 | 15.5 |
| Rest of World ^b | 16.07 | 16.49 | 17.56 | 22.0 |
| Total | 53.82 | 54.53 | 56.32 | 66.8 |
| Stock Draw & Discrepancy | -0.57 | 0.08 | -0.32 | 0.3 |
| EURASIA | | | | |
| PRODUCTION | | | | |
| China | 2.77 | 2.83 | 2.84 | 3.1 |
| Former Soviet Union | 11.40 | 10.41 | 8.91 | 8.5 |
| Eastern Europe | 0.34 | 0.29 | 0.25 | 0.4 |
| Total | 14.51 | 13.53 | 12.00 | 12.0 |
| CONSUMPTION | | | | |
| China | 2.30 | 2.50 | 2.63 | 3.2 |
| Former Soviet Union | 8.39 | 8.35 | 6.70 | 6.2 |
| Eastern Europe | 1.65 | 1.33 | 1.09 | 1.3 |
| Total | 12.34 | 12.18 | 10.42 | 10.7 |
| World Oil Consumption | 66.16 | 66.71 | 66.75 | 77.4 |

^a Includes the 50 States and the District of Columbia.

^b Includes Australia, New Zealand, and the U.S. Territories.

OECD = Organization for Economic Cooperation and Development.

OPEC = Organization of Petroleum Exporting Countries.

NOTES: Production includes crude oil, natural gas liquids, refinery gains, hydrogen, and other hydrocarbons. Totals may not equal sum of components because of independent rounding.

SOURCES: History: Energy Information Administration (EIA), International Energy Annual, DOE/EIA-0219(92), Tables 8 and D2. **Projections:** EIA, Annual Energy Outlook 1994, DOE/EIA-0383(94), Table A19, and World Energy Projection System, 1994. International Energy Outlook 1994, Energy Information Administration, p. 13.

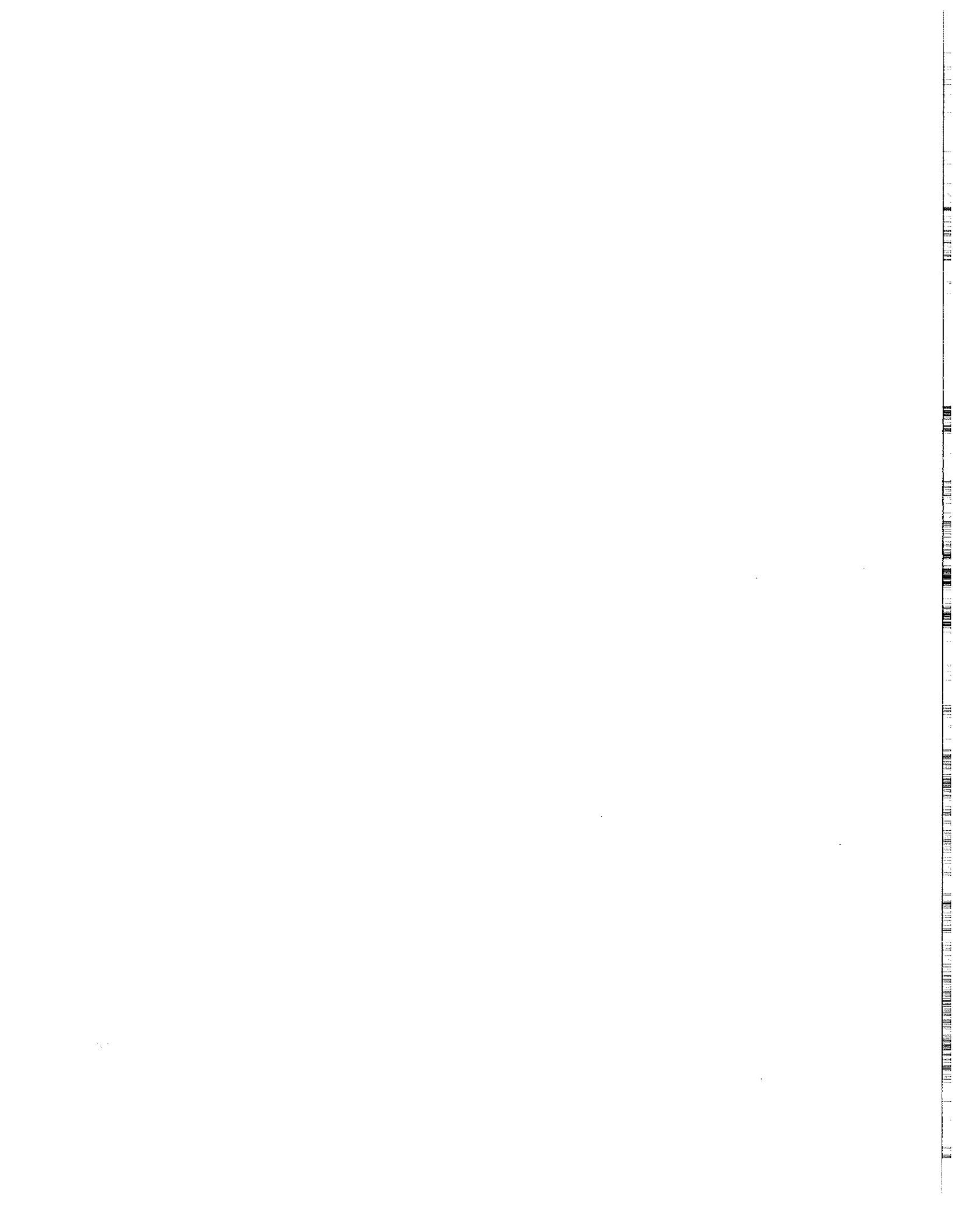


TABLE II-9
WORLD OIL PRODUCTION CAPACITY ASSUMPTIONS
(MILLION BARRELS PER DAY)

| REGION/COUNTRY | 1990 | ESTIMATES | | ASSUMPTIONS | |
|-----------------------|-------------|-------------|-------------|-------------------|-------------|
| | | 1992 | BASE CASE | SENSITIVITY RANGE | |
| OPEC | | | | | |
| PERSIAN GULF | | | | | |
| Iran | 3.2 | 3.6 | 4.6 | 4.3 | 5.0 |
| Iraq | 2.2 | 0.4 | 4.7 | 4.0 | 5.5 |
| Kuwait | 1.7 | 1.1 | 3.1 | 3.0 | 3.3 |
| Qatar | 0.5 | 0.4 | 0.6 | 0.5 | 0.7 |
| Saudi Arabia | 8.5 | 9.6 | 11.0 | 10.5 | 12.3 |
| United Arab Emirates | 2.5 | 2.6 | 3.2 | 2.9 | 3.4 |
| TOTAL | 18.6 | 17.7 | 27.2 | 25.2 | 30.2 |
| OTHER OPEC | | | | | |
| Algeria | 1.4 | 1.3 | 1.6 | 1.4 | 1.9 |
| Gabon | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 |
| Indonesia | 1.5 | 1.7 | 1.4 | 1.2 | 1.6 |
| Libya | 1.6 | 1.6 | 2.0 | 1.8 | 2.3 |
| Nigeria | 1.8 | 2.0 | 2.5 | 2.3 | 2.7 |
| Venezuela | 2.6 | 2.6 | 3.4 | 3.0 | 3.9 |
| TOTAL OTHER | 9.2 | 9.5 | 11.2 | 10.0 | 12.8 |
| TOTAL OPEC | 27.8 | 27.2 | 38.4 | 35.2 | 43.0 |
| NON-OPEC | | | | | |
| OECD | | | | | |
| United States | 9.7 | 9.7 | 8.0 | 7.6 | 8.3 |
| Canada | 2.0 | 2.1 | 2.2 | 2.1 | 2.3 |
| Australia | 0.7 | 0.6 | 0.9 | 0.7 | 1.0 |
| North Sea | 4.2 | 4.6 | 5.9 | 5.8 | 6.0 |
| Other OECD | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| TOTAL OECD | 17.1 | 17.5 | 17.5 | 16.7 | 18.1 |
| EURASIA | | | | | |
| China | 2.8 | 2.8 | 3.5 | 3.4 | 3.6 |
| Former Soviet Union | 11.5 | 9.1 | 8.2 | 7.4 | 9.1 |
| Eastern Europe | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 |
| TOTAL EURASIA | 14.6 | 12.1 | 11.9 | 11.0 | 13.0 |
| OTHER NON-OPEC | | | | | |
| Latin America | 5.2 | 5.5 | 6.4 | 6.0 | 6.8 |
| Middle East | 1.4 | 1.5 | 1.9 | 1.8 | 2.3 |
| Africa | 1.8 | 1.9 | 1.8 | 1.5 | 2.0 |
| Asia | 1.7 | 1.7 | 2.4 | 2.1 | 2.8 |
| TOTAL | 10.1 | 10.6 | 12.5 | 11.4 | 13.9 |
| TOTAL NON-OPEC | 41.8 | 40.2 | 41.9 | 39.1 | 45.0 |
| WORLD TOTAL | 69.6 | 67.4 | 80.3 | 74.3 | 88.0 |

OPEC = Organization of Petroleum Exporting Countries.

OECD = Organization for Economic Cooperation and Development.

NOTES: Capacity is defined as maximum sustainable production capacity adjusted to reflect current operable capacity in selected countries. Production includes crude oil, natural gas liquids, refinery gains, hydrogen, and other hydrocarbons. Totals may not equal sum of components because of independent.

SOURCES: ESTIMATES: Energy Information Administration, Energy Markets and Contingency Information Division. ASSUMPTIONS: EIA, Oil Market Simulation Model Spreadsheet, 1994. International Energy Outlook 1994, Energy Information Administration, p. 20.

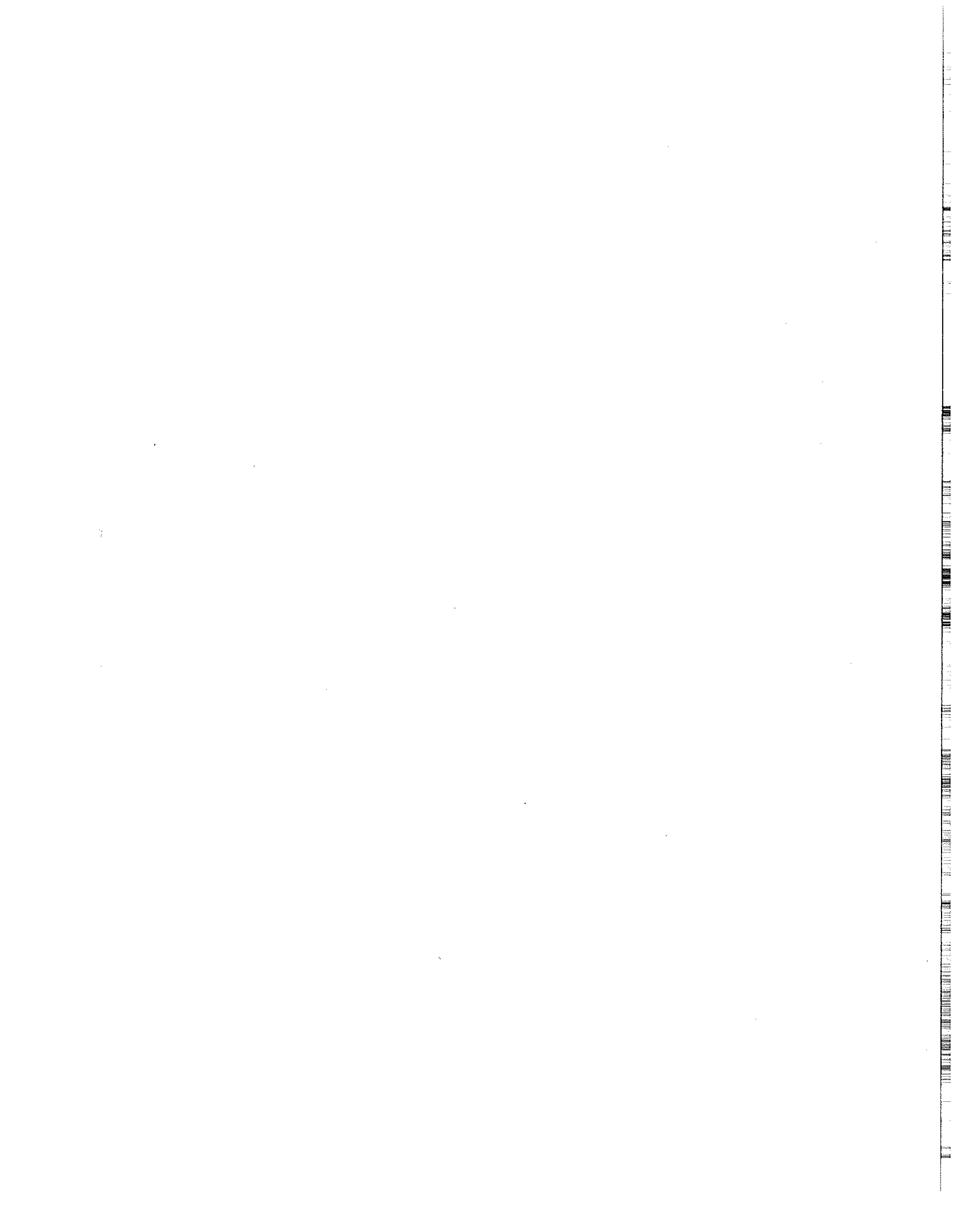


TABLE II-10
HISTORICAL REVIEW OF OIL SUPPLY DISRUPTIONS

| EVENT | YEAR | MAGNITUDE Maximum Disrupted Volume (mb/d) ^a | DURATION | | LOCATION/REGION | | | | | TYPE | | | |
|-----------------------------------|------|---|------------------------|------------------------|-----------------|---------------|--------------|----------------|-----------------------|-----------------------|-----------------------|---|---|
| | | | More than 1 year | Less than 1 year | Persian Gulf | Mediterranean | North Sea | West Africa | Facility ^b | Internal ^c | External ^d | | |
| Iranian oilfields nationalized | 1951 | 0.7 | X | | X | | | | | | | | X |
| Suez war | 1956 | 2.0 | | X | | X | | | | | | X | |
| Syria transit fee dispute | 1966 | 0.7 | | X | | X | | | | | | | X |
| Nigerian civil war | 1967 | 0.5 | X | | | | | X | | | | X | |
| Libyan price controversy | 1970 | 1.3 | | X | | X | | | | | | X | |
| Algerian-French struggle | 1971 | 0.6 | | X | | X | | | | | | X | |
| October Arab-Israeli War | 1973 | 1.6 | | X | | X | | | | | | | X |
| Iranian revolution | 1978 | 3.7 | | X | | X | | | | | | X | |
| Outbreak of Iran-Iraq war | 1980 | 3.0 | | X | | X | | | | | | | X |
| UK Fulmer storage vessel accident | 1988 | 0.2 | | X | | | | X | | | | X | |
| Persian Gulf war | 1990 | 5.0 | X | | X | | | | | | | | X |
| TOTALS | | | 3 | 8 | 5 | 5 | 1 | 1 | 1 | 1 | 5 | 5 | 5 |

^a This table includes only supply disruptions of at least 200,000 b/d and lasting three months or more. At least 10 other disruptions - ranging in size from 100,000 b/d to 700,000 b/d - have occurred since 1951, but all lasted less than three months. Most of these disruptions were caused by facility accidents, pipeline bombings, bad weather, and delays in Russian export permits. Five disruptions, ranging in size from 200,000 b/d to 500,000 b/d and each lasting about one month, have occurred since 1991, including bombings of the export pipeline in Colombia, bad weather at the Russian export terminal of Novorossiysk and in the North Sea, and delays in Russian export permits.

^b Accidents

^c Civil disorder, revolution, bureaucratic disorder

^d War between two or more countries

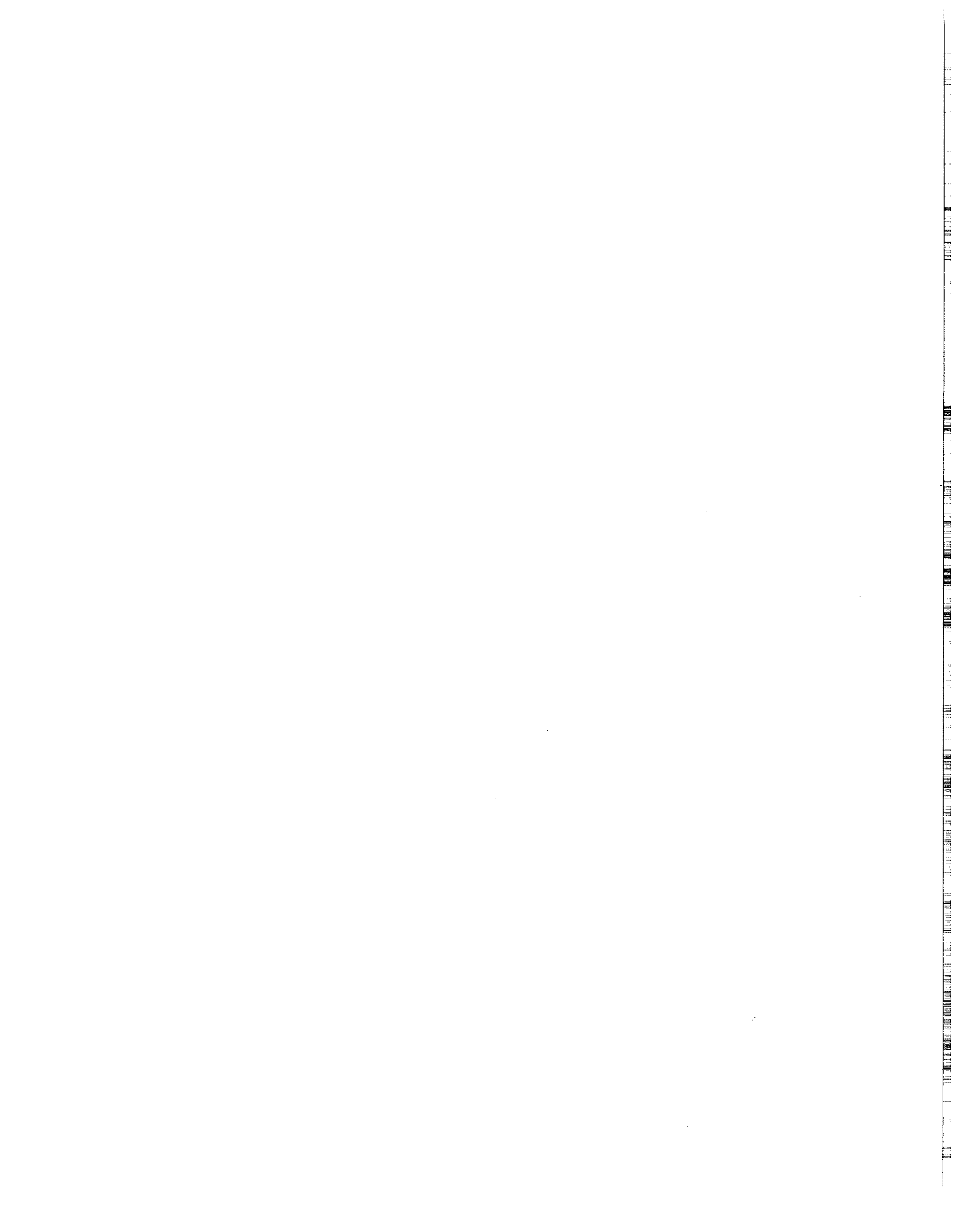
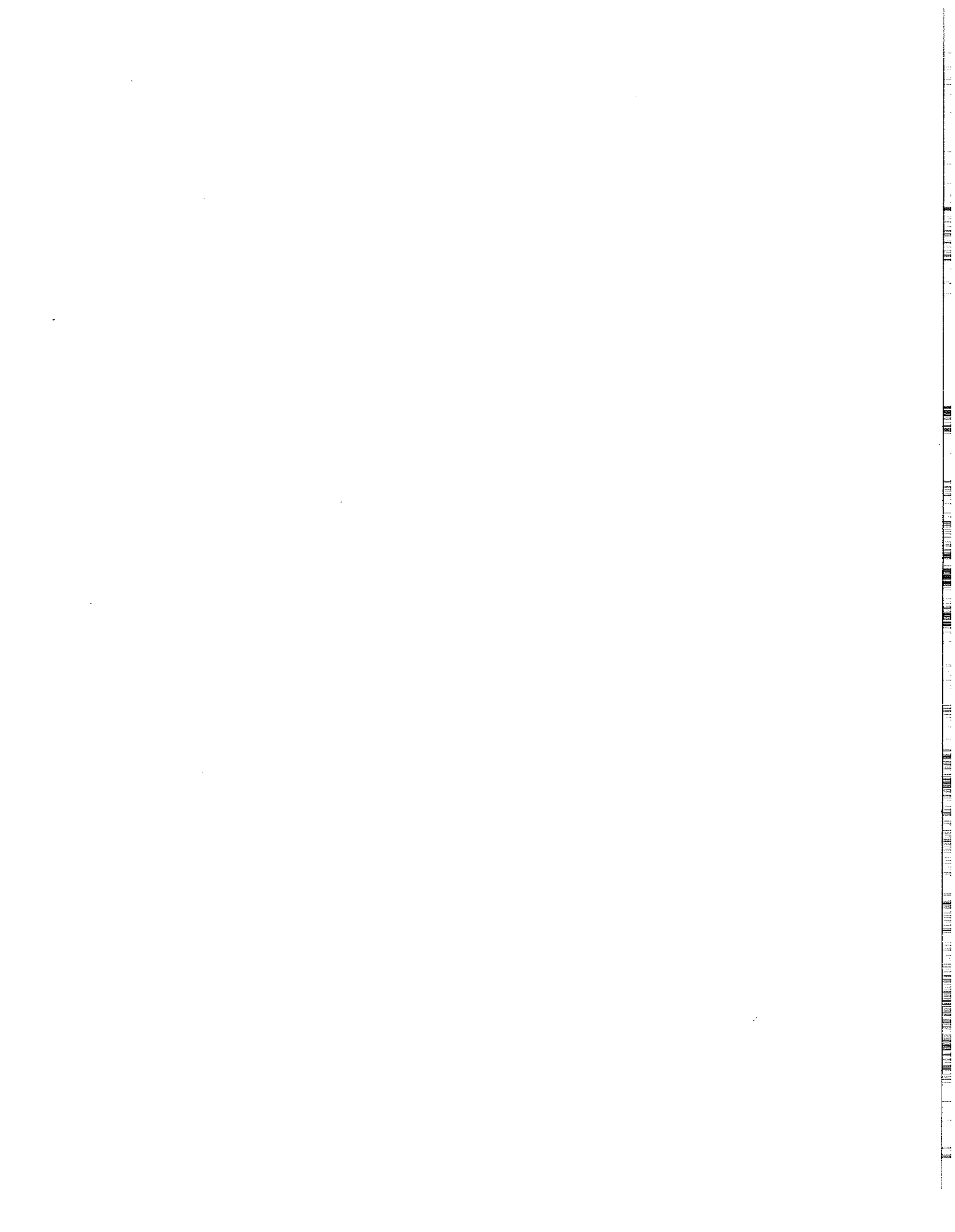


TABLE II-11

OVERVIEW OF KEY FACTORS

CHANGES IN KEY BENCHMARKS SINCE THE 1988 INVESTIGATION

| <u>BENCHMARKS</u> | <u>IMPROVE</u> | <u>WORSE</u> | <u>SAME</u> |
|--|----------------|--------------|-------------|
| 1988 INVESTIGATION | | | |
| 1. Domestic oil reserves | | ✓ | |
| 2. U.S. oil production | | ✓ | |
| 3. Oil infrastructure, employment | | ✓ | |
| 4. Impact of low oil prices on the economy | ✓ | | |
| 5. Status of U.S. oil companies | | ✓ | |
| 6. Import dependence | | ✓ | |
| 7. Import vulnerability | | | |
| -surge production | | ✓ | |
| -government owned oil stocks | | ✓ | |
| -interfuel substitution | | ✓ | |
| -geopolitical risk of disruption | | | ✓ |
| 8. Foreign policy flexibility | | | ✓ |
| 9. Military requirements | | | ✓ |
| NEW FACTORS-1994 INVESTIGATION | | | |
| 1. Status of OPEC | ✓ | | |
| 2. Emergence of energy futures market-oil price transparency | ✓ | | |
| 3. Demise of the Soviet Union | ✓ | | |



APPENDIX TO SECTION II
Assumptions Behind this Energy Scenario

| <u>Year</u> | <u>World Oil Price Base Case</u> <u>(1992 dollars per barrel)</u> |
|-------------|--|
| 1990 | \$23.20 |
| 1991 | \$19.19 |
| 1992 | \$18.20 |
| 1993 | \$16.69 |
| 1994 | \$16.40 |
| 1995 | \$17.00 |
| 1996 | \$17.70 |
| 1997 | \$18.30 |
| 1998 | \$19.10 |
| 1999 | \$19.90 |
| 2000 | \$20.70 |

| <u>Countries</u> | <u>Average Annual GDP Growth Rates,</u> <u>1990-2000 (Percent)</u> |
|------------------|---|
| United States | 2.2 |
| Canada | 2.5 |
| Japan | 4.5 |
| OECD Europe | 3.2 |

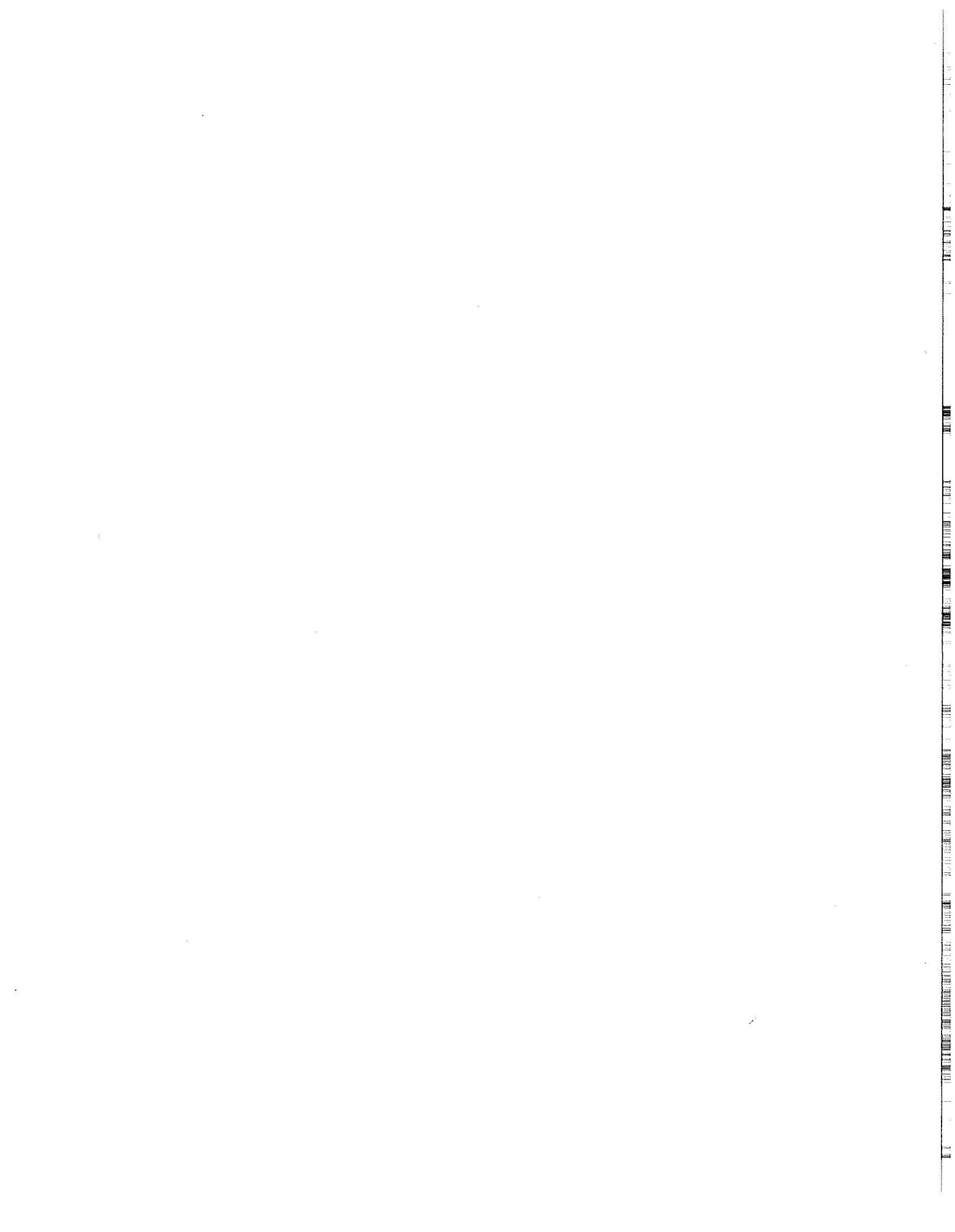
| <u>Years</u> | <u>U.S. OIL PRODUCTION*</u> <u>(Million barrels per day)</u> |
|--------------|---|
| 1992 | 8.9 |
| 1993 | 8.6 |
| 1994E** | 8.4 |
| 2000E** | 7.0 |

- * Does not include refinery processing gains
 ** Estimated

| <u>Years</u> | <u>U.S. Net Oil Imports</u> <u>(Million barrels per day)</u> |
|--------------|---|
| 1993 | 7.5* |
| 1994 | 8.0 |
| 2000 | 11.0 |

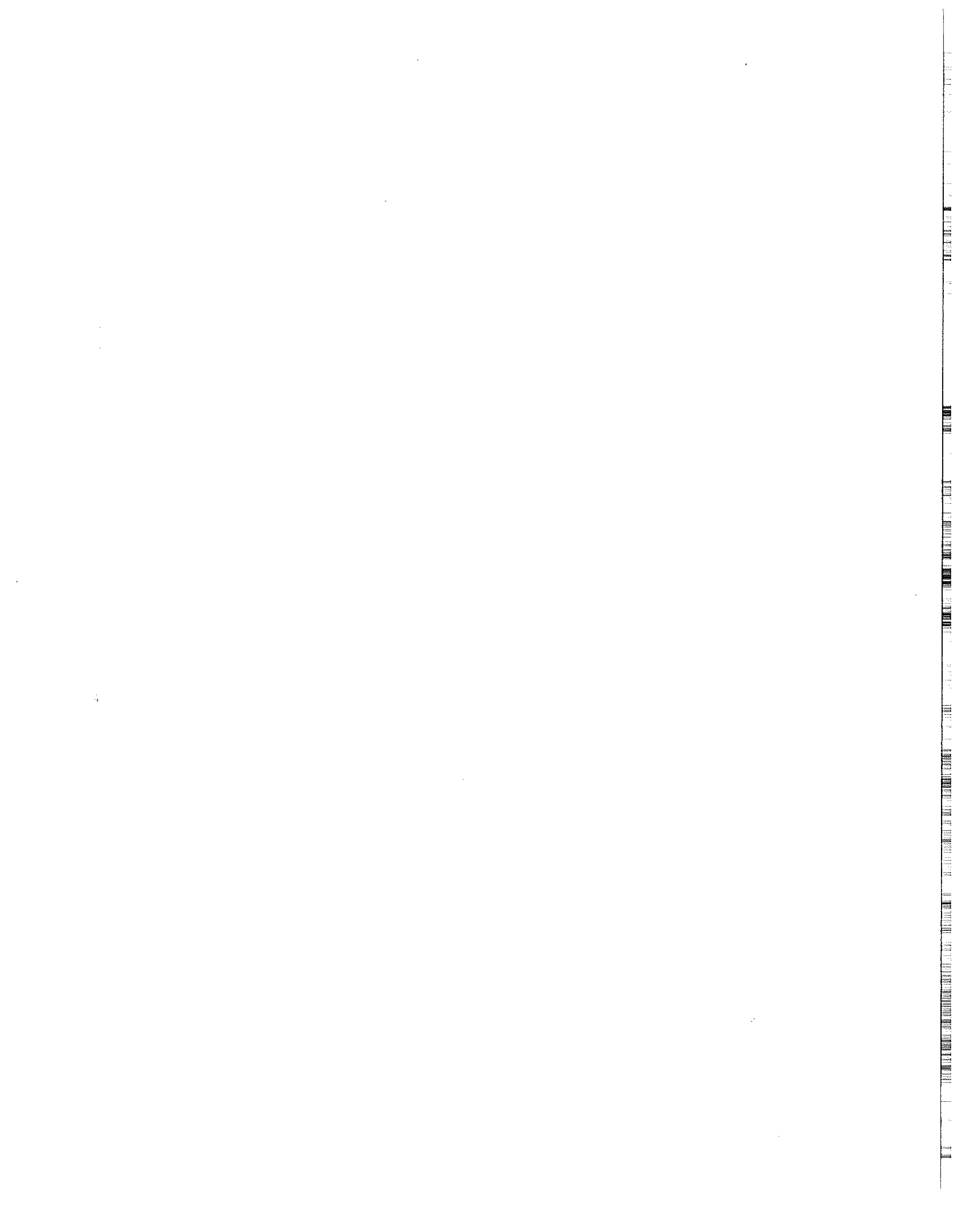
* Actual

Sources: International Energy Outlook, 1994, pp. 7-11, Energy Information Administration, July 1994;
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11. Testimony of Mark P. Metzler on behalf of Felderhoff Brothers Drilling Company, Inc. at the Dallas public hearing, June 13, 1994.
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SECTION III. FINDING AND RECOMMENDATIONS

A. Finding

Since the previous Section 232 Petroleum Finding in 1988, there have been some improvements in U.S. energy security. The breakup of the Soviet Union and the apparent disarray within OPEC have enhanced U.S. energy security. Lower oil prices on balance benefitted the U.S. economy. However, the reduction in exploration, dwindling reserves, falling production, relatively high cost of U.S. production, and the resulting low rates of return on investments all point toward a contraction of the U.S. petroleum industry and increasing imports from OPEC sources. Growing import dependence, in turn, increases U.S. vulnerability to a supply disruption because non-OPEC sources lack surge production capacity; and there are at present no substitutes for oil-based transportation fuels which account for two-thirds of U.S. petroleum consumption. Given the above factors, the Department finds that petroleum imports threaten to impair the national security.

Section 232 requires the Secretary of Commerce and the President to recognize the close relationship between the economic welfare of the nation to U.S. national security. As energy security effects the economic welfare of the United States, energy security must be considered in determining the effects on the national security of petroleum imports.

B. Recommendations

In light of the finding that petroleum imports threaten to impair the national security, the Department has the following recommendations:

1. Trade Actions

The Department does not recommend that the President use his authority under Section 232 to adjust imports. The Clinton Administration's other efforts to improve U.S. energy security are more appropriate than an import adjustment.

The Department concurs with the conclusions of the 1988 study that, on balance, the costs to the national security of an oil import adjustment outweigh the potential benefits.¹ For example, an oil import adjustment such as a tariff would likely have an inflationary effect on the economy and would result in the loss of significant jobs in the nonpetroleum sectors. This, in turn, would reduce real GNP. An import adjustment would diminish the competitiveness of energy-intensive export companies and strain relations with close trading partners who may seek an exemption from the adjustment.

2. Clinton Administration Energy Policy

The Clinton Administration recognizes the importance of U.S. energy security and is pursuing a series of policies to enhance that security. It is important to note that no cost-effective government action could eliminate U.S. dependence on foreign oil entirely, but the following supply enhancement and energy conservation and efficiency policies help limit that dependence. Thus, the Department recommends continuing the policies described below.

Increased Investment in Energy Efficiency:

The Administration places renewed emphasis on increasing the energy efficiency of the domestic economy by the following:

- o Increasing the budgets substantially over the last two years to achieve an enhanced energy efficiency level.
- o Conducting a substantial program to provide weatherization grants to the states for insulation and other building improvements to increase their energy efficiency and reduce the consumption of oil and other energy sources. This is important in the northeast where a significant amount of fuel oil consumption goes toward space heating.
- o Developing new appliance standards that will save energy and further reduce demand for oil.
- o Working on innovative workplace solutions to decrease long-distance commuting through the use of telecommuting programs.

These actions provide some examples of the extensive energy efficiency programs currently underway. The goals of these programs are to decrease consumption of oil.

Increased Emphasis on Alternative Fuels:

The Administration places particular emphasis on improving the efficiency of the transportation sector where oil comprises about 98 percent of the fuel utilization and where petroleum-based transportation consumption exceeds domestic crude oil production.

- o Initiating a partnership with automobile manufacturers to design a prototype automobile that can achieve levels of 80 miles per gallon or more by the year 2000.
- o Establishing a program to bring alternative transportation fuels and vehicles into the marketplace by:

-- Committing to purchase substantial numbers of vehicles over the next several years; and by the year 2000, most new Federal vehicle purchases will be alternative fuel vehicles.

-- Establishing the Clean Cities Program where at least 18 cities and states will coordinate their purchase requirements to introduce alternative-fueled vehicles.

-- Encouraging industry to respond by constructing service stations that provide fuels for alternative-fueled vehicles.

These actions will reduce direct consumption of petroleum-based transportation fuels so that the need for imports will decrease.

Since 1973, the United States added 48 million vehicles with only a small increase in gasoline consumption because of increased automobile energy efficiency. Over the past 20 years, our consumption of gasoline increased by only 100,000 barrels per day. If the 1973 consumption trends had continued, we would be consuming 3 MMB/D more gasoline today, all from imports.

Increased Government Investment in Technology:

The Administration more than doubled its investment with American industry in advanced technologies for the exploration and production of natural gas and oil. This is important because technological innovation can significantly decrease the domestic finding costs for natural gas and oil, thereby maintaining and expanding the domestic resource base. This program includes:

- o Accelerating the advanced oil recovery program, by providing technology for the private sector, to increase the productive capacity of our domestic resources.
- o Increasing the budget for technology partnerships with the private sector over the last two years.

These programs are maintaining the domestic resource base and improving its economics.

Expanded Utilization of Natural Gas:

The Administration aggressively promotes expanded markets for natural gas at the expense of imported oil and to the benefit of air quality. The Administration developed the following initiatives:

- o Increasing the research budgets for natural gas utilization in areas such as fuel cells and advanced turbines.
- o Developing an integrated natural gas strategic plan that brings together all research and regulatory efforts. This

entails focusing on expanded technology investment programs and identifying regulatory barriers inhibiting increased utilization of this domestic fuel.

- o Expanding cooperation with the Gas Research Institute to advance research efforts in a more cooperative way.
- o Making reliance upon natural gas one of the cornerstones of our Climate Change Action Plan by providing benefits to our environment through the reduction of greenhouse gas emissions.

Thus, the emphasis on natural gas, a clean and plentiful domestic fuel, will make us less dependent upon imported oil as an energy source.

Increased Government Investment in Renewables:

The Administration increased investment in renewable resources because they offer great hope of replacing imported oil in selected end uses.

The government increased the budget to continue aggressive partnerships with industry to develop low-cost renewable technologies. Renewable energy sources offer another way to reduce the oil intensity and dependency of the domestic economy.

Increased Government Regulatory Efficiency:

The Administration is reducing the red tape and regulations that burden domestic industries. Various government agencies are taking the following actions:

- o The Department of the Interior's Bureau of Land Management is conducting a sweeping review to make its regulatory structure more responsive to domestic concerns. It reduced the royalty burden on stripper well production from Federal lands. Interior's Minerals Management Service is offering to lease additional oil and gas acreage in the producing areas of the Gulf of Mexico, especially those areas where industry expressed its greatest interest (the subsalt shallow water prospects).
- o The Department of Energy is working with the Interstate Oil and Gas Compact Commission to identify the various state laws and regulations that impact domestic production. Energy will provide guidance on how to streamline the application of these laws and regulations.
- o The Environmental Protection Agency began a Common Sense Initiative that includes domestic refineries as one of the

six industries targeted for review and reform of current environmental regulations.

Increased Emphasis on Free Trade and U.S. Exports:

As noted earlier, the concentration of the world's energy resources in the Middle East poses significant security risks. This is why the United States is ready to assist American firms and their employees through encouraging the export of goods, services, technology, and fuels by:

- o Assisting energy conservation efforts and the development of new energy supplies in this hemisphere and other areas friendly to the United States.
- o Emphasizing free trade, privatization, and promotion of American exports helps develop the world's energy resources and prevent overreliance on any single region of the world.
- o Allowing the export of low-sulfur Western steam coal and liberalizing restrictions on the export of California heavy crude to world markets.
- o Encouraging our companies to negotiate mutually beneficial sales of low-sulfur coal and heavy crude oil to foreign customers because these exports will further diversify world energy supplies.

Maintaining the Strategic Petroleum Reserve:

The Strategic Petroleum Reserve (SPR) is the nation's stockpile of crude oil available in the event of an oil supply disruption.

- o The 580 million barrels of crude oil under government ownership and control provides a bulwark against unforeseen circumstances that can affect crude oil supplies, impact upon crude oil prices, and severely disrupt the domestic economy.
- o The Energy Department is correcting problems associated with SPR deliverability and ensuring that the facilities comprising the SPR complex operate as expected.
- o The Energy Department is seeking innovative methods to increase the size of the SPR to meet future oil needs.
- o Although the pattern of U.S. dependence on petroleum imports is growing and is expected to continue to do so, currently the SPR is not being filled to capacity and is not being filled at all.

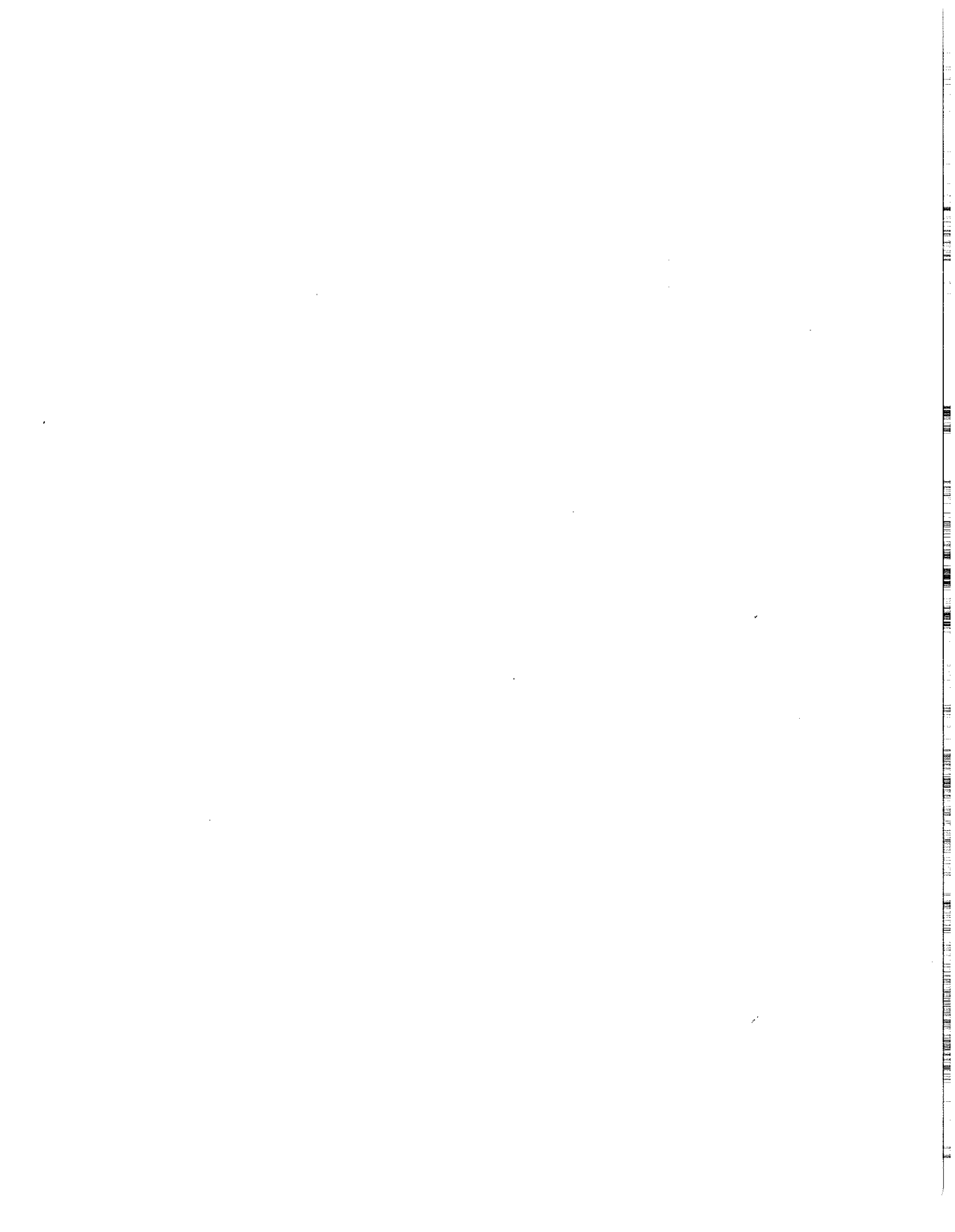
-- In part, this is because alternative financing methods are not financially feasible due to above-market costs that would have to be incurred for otherwise normal commercial activity.

-- To fill the SPR to capacity, and thereby enhance national security, the President should encourage the Secretary of Energy to take whatever measures are necessary to make use of alternative financing approaches to filling the SPR cost-effective.

- o The United States is coordinating oil emergency cooperation among the energy-consuming countries through the International Energy Agency. Discussions are continuing to strengthen the existing market-oriented coordinated energy response measures for dealing with possible future disruptions.

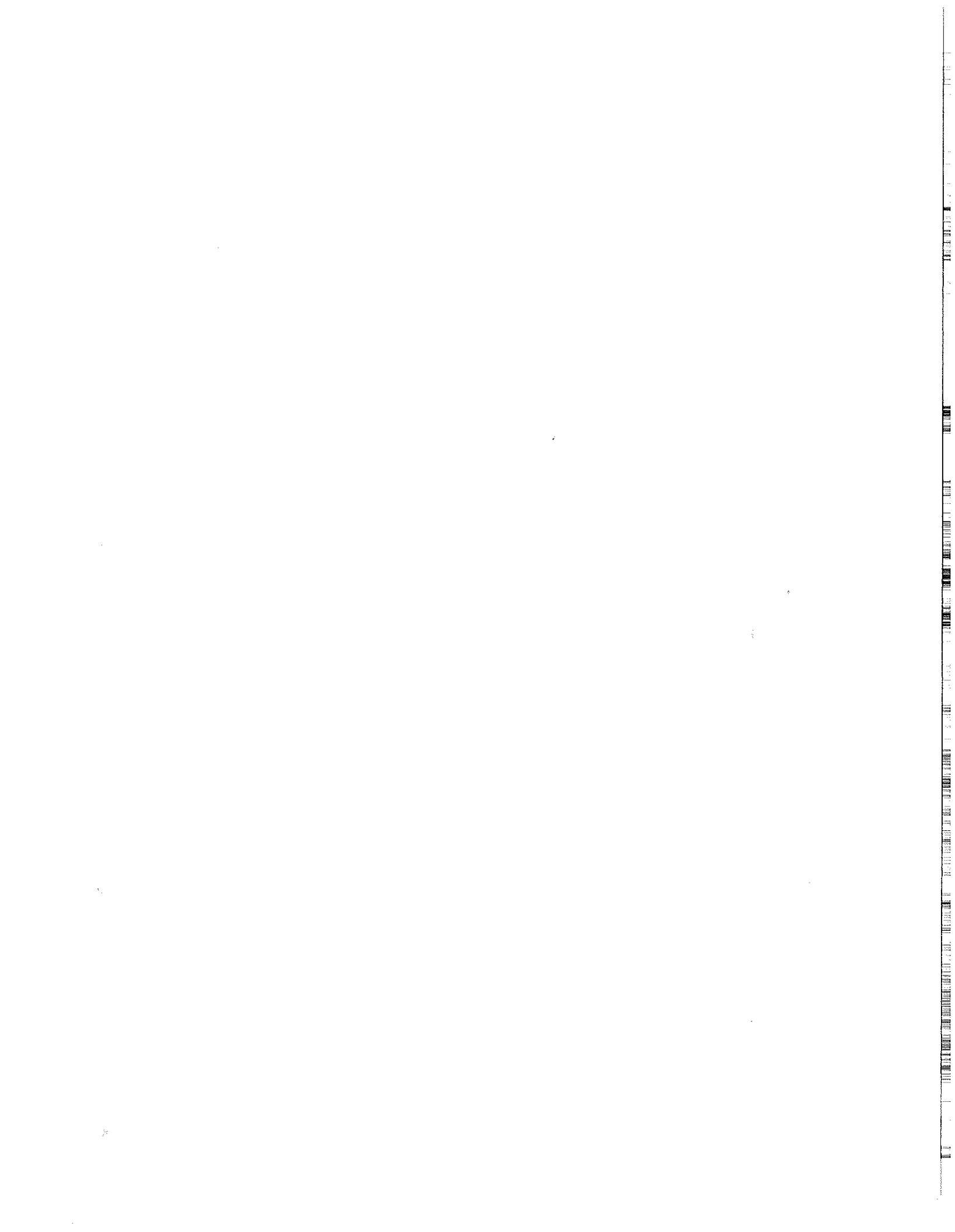
Endnote

1. 1988 Commerce 232 Report, Section V, pp. 2-5, U.S. Department of Commerce.



APPENDIX A:

Federal Register Notices Accepting Petition and Inviting Public
Comments, and Announcing Public Hearings.



Agency Form Under Review by the Office of Management and Budget

DOC has submitted to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

Agency: Bureau of the Census.
 Title: Survey of Income and Program Participation - 1993 Panel Wave 6.
 Form Number(s): SIPP-13600.
 Agency Approval Number: 0607-0759.

Type of Request: Revision of a currently approved collection.
 Burden: 63,000 hours.
 Number of Respondents: 42,000.
 Avg Hours Per Response: 30 minutes.
 Needs and Uses: The Survey of Income and Program Participation (SIPP) is a longitudinal, demographic, household survey in which the Census Bureau interviews sample households in waves occurring every 4 months over a 2 1/2 year period. The survey is molded around a central "core" of labor force and income questions that remain fixed during each wave of a panel. The core is periodically supplemented with questions designed to answer specific needs. These supplemental questions are referred to as "topical modules." The topical modules for Wave 6 include the following: 1) Work Schedule, 2) Child Care, 3) Child Support Agreements, 4) Support for Nonhousehold Members, 5) Functional Limitations and Disabilities—Adults, 6) Utilization of Health Care Services—Adults, 7) Functional Limitations and Disabilities—Children, 8) Utilization of Health Care Services—Children, and 9) Children's Well-Being. Wave 6 interviews will be conducted from October 1994 through January 1995.

Affected Public: Individuals or households.
 Frequency: Once during the panel.

Respondent's Obligation: Voluntary.
 OMB Desk Officer: Maria Gonzalez, (202) 395-7313.

Copies of the above information collection proposal can be obtained by calling or writing Edward Michals, DOC Forms Clearance Officer, (202) 482-3271, Department of Commerce, room 5312, 14th and Constitution Avenue, NW, Washington, DC 20230.

Written comments and recommendations for the proposed information collection should be sent to Maria Gonzalez, OMB Desk Officer, room 3208, New Executive Office Building, Washington, DC 20503.

Dated: April 7, 1994.
 Edward Michals,
 Departmental Forms Clearance Officer, Office of Management and Organization.
 [FR Doc. 94-8773 Filed 4-11-94; 8:45 am]
 BILLING CODE 3510-07-F

DATES: Comments must be received by May 12, 1994.

ADDRESSES: Written comments (ten copies) should be sent to Brad Botwin, Director, Strategic Analysis Division, Office of Industrial Resource Administration, Department of Commerce, room 3878, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue NW., Washington, DC 20230.

FOR FURTHER INFORMATION CONTACT: Bernie Kritzer, Senior Policy Advisor, Office of Foreign Availability, Telephone: (202) 482-5305.

Karen Swasey, Section 232 Program Manager, Strategic Analysis Division, Office of Industrial Resource Administration, Telephone: (202) 482-3795.

SUPPLEMENTARY INFORMATION: Background

In a petition submitted by the Independent Petroleum Association of America, on March 11, 1994, the Department of Commerce was requested to initiate an investigation under section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862), to determine the effects on the national security of imports of crude oil and petroleum products.

On April 5, 1994, the Department of Commerce formally accepted the application and initiated an investigation. The findings and recommendations of the investigation are to be reported by the Secretary of Commerce to the President no later than December 31, 1994 (i.e., within 270 days).

The items to be investigated have distinct Harmonized Tariff System (HTS) tariff classification numbers. They include the following HTS numbers and earlier TSUS numbers:

Bureau of Export Administration

Initiation of National Security Investigation of Imports of Crude Oil and Petroleum Products

AGENCY: Bureau of Export Administration, Commerce.
ACTION: Notice of initiation of national security investigation and request for public comments.

SUMMARY: This notice is to advise the public that an investigation is being initiated under section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862), to determine the effects on the national security of imports of crude oil and petroleum products. Interested parties are invited to submit written comments, opinions, data, information, or advice relative to the investigation to the Strategic Analysis Division, Office of Industrial Resource Administration, U.S. Department of Commerce.

| Name | TSUS | HTS |
|---|--------|--|
| Crude oil, under 25 degrees API | 475.05 | 27100005-0 |
| Crude oil, 25 degrees API or more | 475.10 | 27100010-0 |
| Motor fuel, including gas, leaded and unleaded; naphtha-type jet fuel and kerosene-type jet fuel | 475.25 | 27100015-0 |
| Kerosene derived from petroleum, shale oil, or both, except motor fuel | 475.30 | 27100020-0 |
| Naphthas derived from petroleum, shale oil, natural gas, or combinations thereof, except motor oil | 475.35 | 27100025-0 36061000-1 |
| Mineral oil of medicinal grade derived from petroleum, shale oil, or both | 475.40 | 27100045-2 |
| Lubricating oils and greases, derived from petroleum, shale oil, or both, with or without additives | 475.45 | 27100030-0 34031110-3 34031150-3 34031910-0 |
| | 475.55 | 34031110-3 34031150-3 34031950-1 |
| | 475.60 | 27100040-0 34031110-3 34031150-3 34031950-1 |

| Name | TSUS | HTS |
|--|------------------|--|
| Mixtures of hydrocarbons not specially provided for, derived wholly from petroleum, shale oil, natural gas, or combinations thereof, which contain by weight not over 50% of any single hydrocarbon compound | 475.65 475.70 | 27100045-2 27121000-0 27132000-0 27139000-0 |
| Paraffin and other petroleum waxes | 494.22 | 27122000-0 27129020-0 34049050-0 |
| Petroleum coke | 517.5120 | 27040000-2 27131200-0 |
| Asphaltum, bitumen, & limestone-rock asphalt | 517.11 | 38011050-0 |

This investigation is being undertaken in accordance with Part 705 of the National Security Industrial Base Regulations (15 CFR parts 700 to 709) (the "regulations"). Interested parties are invited to submit written comments, opinions, data, information, or advice relevant to this investigation to the Office of Industrial Resource Administration, U.S. Department of Commerce, no later than May 12, 1994.

The Department is particularly interested in comments and information directed to the criteria listed in § 705.4 of the regulations as they affect national security, including the following:

(a) Quantity of the circumstances related to the importation of the articles subject to the investigation;

(b) Domestic production and productive capacity needed for these articles to meet projected national defense requirements;

(c) Existing and anticipated availability of human resources, products, raw materials, production equipment, and facilities to produce these items;

(d) Growth requirements of domestic industries to meet national defense requirements and/or requirements to assure such growth;

(e) The impact of foreign competition on the economic welfare of the domestic industry; and

(f) The displacement of any domestic products causing substantial unemployment, decrease in the revenues of government, loss of investment or specialized skills and productive capacity, or other serious effects.

All materials should be submitted with 10 copies. Public information will be made available at the Department of Commerce for public inspection and copying. Material that is national security classified information or business confidential information will be exempted from public disclosure as provided for by § 705.6 of the regulations (15 CFR 705.6). Anyone submitting business confidential information should clearly identify the business confidential portion of the

submission, file a statement justifying nondisclosure and referring to the specific legal authority claimed, and provide a non-confidential submission which can be placed in the public file. Communications from agencies of the United States Government will not be made available for public inspection.

The public record concerning this notice will be maintained in the Bureau of Export Administration's Records Inspection Facility, room 4525, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230, telephone (202) 482-5653. The records in this facility may be inspected and copied in accordance with the regulations published in part 4 of title 15 of the Code of Federal Regulations (15 CFR 4.1 *et seq.*). Information about the inspection and copying of records at the facility may be obtained from Ms. Margaret Cornejo, the Bureau of Export Administration's Freedom of Information Officer, at the above address and telephone number.

Dated: April 8, 1994.

Sue E. Eckert,
Assistant Secretary for Export Administration.

[FR Doc. 94-8627 Filed 4-11-94; 8:45 am]
BILLING CODE 3510-07-P

National Institute of Standards and Technology

[Docket No. 940386-4086]
RIN 0693-AB22

Proposed Revision of Federal Information Processing Standard (FIPS) 172, VHSIC Hardware Description Language (VHDL)

AGENCY: National Institute of Standards and Technology (NIST), Commerce.
ACTION: Notice; request for comments.

SUMMARY: This proposed revision of Federal Information Processing Standard (FIPS) 172, VHSIC Hardware Description Language (VHDL), will adopt the standard hardware

description language of the ANSI/IEEE 1076-1993, IEEE Standard VHDL Language Reference Manual. This proposed revision is for use by computing professionals involved in high level digital hardware specification, development and implementation.

Prior to submission of this proposed FIPS to the Secretary of Commerce for review and approval, it is essential to assure that consideration is given to the needs and views of manufacturers, the public, and state and local governments. The purpose of this notice is to solicit such views.

This proposed FIPS contains two sections: (1) An announcement section, which provides information concerning the applicability, implementation, and maintenance of the standard; and (2) a specifications section which deals with the technical requirements of the standard. Only the announcement section of the standard is provided in this notice. Interested parties may obtain copies of the technical specifications (ANSI/IEEE 1076-1993) from the IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, telephone 1-800-678-4333.

DATES: Comments on this proposed FIPS must be received on or before July 11, 1994.

ADDRESSES: Written comments concerning the proposed FIPS should be sent to: Director, Computer Systems Laboratory, ATTN: Proposed FIPS 172-1, VHDL, Technology Building, room B-154, National Institute of Standards and Technology, Gaithersburg, MD 20899.

Written comments received in response to this notice will be made part of the public record and will be made available for inspection and copying in the Central Reference and Records Inspection Facility, room 6020, Herbert C. Hoover Building, 14th Street between Pennsylvania and Constitution Avenues, NW., Washington, DC 20230.
FOR FURTHER INFORMATION CONTACT: Dr. William H. Dashiell, National Institute of Standards and Technology.

COMMISSION ON CIVIL RIGHTS**Agenda and Notice of Public Meeting of the Oklahoma Advisory Committee**

Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights, that the Oklahoma Advisory Committee to the Commission will hold a community forum on Wednesday, June 1, 1994, from 9 a.m. until 5 p.m. at the Clarion Hotel, 4345 North Lincoln Boulevard in Oklahoma City and Thursday, June 2, 1994, from 9 a.m. until 5 p.m. at the Doubletree Hotel at Warren Place, 6110 South Yale in Tulsa. The purpose of the community forum is to obtain information on selected education and employment issues in Oklahoma as they affect minorities, women, and persons with disabilities.

Persons desiring additional information, or planning a presentation to the Committee, should contact Melvin L. Jenkins, Director of the Central Regional Office, 816-426-5253 (TTY 816-426-5009). Hearing-impaired persons who will attend the meeting and require the services of a sign language interpreter should contact the Regional Office at least five (5) working days before the scheduled date of the meeting.

The meeting will be conducted pursuant to the provisions of the rules and regulations of the Commission.

Dated at Washington, DC, May 3, 1994.
Carol-Lee Hurley,
Chief, Regional Programs Coordination Unit.
[FR Doc. 94-11463 Filed 5-10-94; 8:45 am]
BILLING CODE 6335-01-P

DEPARTMENT OF COMMERCE**Bureau of Export Administration****Public Hearings on Section 232 National Security Investigation of Imports of Crude Oil and Petroleum Products**

AGENCY: Bureau of Export Administration, Commerce.

ACTION: Notice of public hearings.

SUMMARY: The Bureau of Export Administration (BXA) is holding public hearings on the investigation that the Department of Commerce initiated, on April 5, 1994, to determine the effects on the national security of imports of crude oil and refined petroleum products under section 232 of the Trade Expansion Act of 1962, as amended. This notice identifies the issues on which the Department is interested in

obtaining the public's views. It also sets forth the procedures for public participation in the hearings.

DATES: The hearings will be held in New York, New York, on Monday, June 6, 1994; in Dallas, Texas, on Monday, June 13, 1994; and in Santa Clara, California, on Thursday, June 16, 1994. Requests to speak are due by Monday, May 23, 1994. The hearing in New York will be held in the Ceremonial Courtroom of the U.S. Court of International Trade, One Federal Plaza. The hearing in Dallas will be held at the Joe C. Thompson Amphitheatre, Cityplace Center East, 2711 N. Haskill. The hearing in Santa Clara will be held at the City of Santa Clara Council Chambers, 1500 Wurburton Avenue.

ADDRESSES: Send requests to speak and written copies of the oral presentation to Steven C. Goldman, Deputy Director, Office of Industrial Resources Administration, room 3876, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue, NW., Washington, DC 20237.

FOR FURTHER INFORMATION CONTACT: Bernard Kritzer, Senior Industry Analyst, Office of Foreign Availability, Telephone: (202) 432-0077.

SUPPLEMENTARY INFORMATION:**I. Background and Specific Comments Requested**

On March 11, 1994, the Independent Petroleum Association of America petitioned the Department of Commerce to initiate an investigation under section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862), to determine the effects on the national security of imports of crude oil and petroleum products.

On April 5, 1994, the Department of Commerce formally accepted the petition and initiated an investigation. The findings and recommendations of the investigation are to be reported by the Secretary of Commerce to the President no later than December 31, 1994 (i.e., within 270 days). For further details on this investigation, see the Federal Register of April 12, 1994 (59 FR 17335).

Consistent with the interest of the U.S. Department of Commerce in soliciting public comments on issues affecting U.S. industry and national security, the Bureau of Export Administration (BXA) is holding public hearings as part of the investigation. The presentations at the hearings will assist the Department in determining whether imports of crude oil and petroleum products constitute a threat to the national security and in formulating

remedies if such a threat is found to exist.

The Department is particularly interested in comments and information directed to the criteria listed in § 705.4 of the National Security Industrial Base Regulations (15 CFR parts 700 to 709) (the "regulations") as they affect national security, including the following:

(a) Quantity of the articles subject to the investigation and other circumstances related to the importation of such articles;

(b) Domestic production and productive capacity needed for these articles to meet projected national defense requirements;

(c) Existing and anticipated availability of human resources, products, raw materials, production equipment, facilities, and other supplies and services needed to produce these articles;

(d) Growth requirements of domestic industries needed to meet national defense requirements and the supplies and services (including investment, exploration and development) necessary to assure such growth;

(e) The impact of foreign competition on the economic welfare of the domestic industry;

(f) The displacement of any domestic products causing substantial unemployment, decrease in the revenues of government, loss of investment or specialized skills and productive capacity, or other serious effects; and

(g) Any other factors that are causing, or will cause, a weakening of our national economy.

II. Public Hearings and Comment Procedures

The public hearings are scheduled to be held in New York, New York on Monday, June 6, 1994; in Dallas, Texas, on Monday, June 13, 1994; and in Santa Clara, California, on Thursday, June 16, 1994. The hearings will commence at 8:30 a.m. and end at 5 p.m. The New York hearing will be held in the ceremonial courtroom of the U.S. Court of International Trade, One Federal Plaza. The Dallas hearing will be held at the Joe C. Thompson Amphitheatre, Cityplace Center East, 2711 N. Haskill. The Santa Clara hearing will be held at the City of Santa Clara Council Chambers, 1500 Wurburton Avenue.

A. Procedure for Requesting Participation

The Department encourages interested public participants to present their views orally at the hearings. Any person wishing to make an oral presentation at

the hearings must submit a written request to the Department of Commerce at the address indicated in the ADDRESS section of this notice. The request to participate in the hearings must be accompanied by 10 copies of a summary of the oral presentation. The written request and summary must be received by the Department no later than Monday, May 23, 1994. In addition, the request to speak should contain a daytime phone number where the person who will be making the oral presentation may be contacted before the hearing. Please note that the submission of comments for presentation at the public hearings is separate from the request for written comments contained in the April 12, 1994, Federal Register notice.

Since it may be necessary to limit the number of persons making presentations, the written request to participate in the public hearings should describe the individual's interest in the hearings and, where appropriate, explain why the individual is a proper representative of a group or class of persons that has such an interest. If all interested parties cannot be accommodated at the hearings, the summaries of the oral presentations will be used to allocate speaking time and to ensure that a full range of comments are heard.

Each person selected to make a presentation will be notified by the Department of Commerce no later than 5 p.m. on Thursday, May 26, 1994. The Department will arrange the presentation times for the speakers. Attendees will be seated on a first-come, first-served basis. On the day of the hearing, persons selected to be heard should bring 100 copies of the summary of their oral presentation to the hearing address indicated in the DATES section of this notice.

Copies of the requests to participate in the public hearings and the summaries of the oral presentations will be maintained at the Bureau of Export Administration's Freedom of Information Records Inspection Facility, room 4525, U.S. Department of Commerce, 14th Street and Pennsylvania Avenue, NW, Washington, DC 20230, telephone (202) 482-5653. The records in this facility may be inspected and copied in accordance with the regulations published in part 4 of title 15 of the Code of Federal Regulations (15 CFR 4.1 *et seq.*) Information about the inspection and copying of records at the facility may be obtained from Ms. Margaret Cornejo, the Bureau of Export Administration's Freedom of Information Officer, at the above address and telephone number,

between the hours of 8:30 a.m. and 4:30 p.m., Monday through Friday.

B. Conduct of the Hearing

The Department reserves the right to select the persons to be heard at the hearings, to schedule their respective presentations, and to establish the procedures governing the conduct of the hearing. Each speaker will be limited to 10 minutes, and comments must be directly related to the criteria listed in § 705.4 of the "regulations".

A Commerce official will be designated to preside at the hearings. Representatives from the Departments of Energy and Interior will also participate in the hearings. This will not be a judicial or evidentiary-type hearing. Only those conducting the hearing may ask questions, and there will be no cross-examination of persons presenting statements.

Any further procedural rules for the proper conduct of the hearing will be announced by the presiding officer.

Dated: May 6, 1994.

Sue E. Eckert,

Assistant Secretary for Export Administration.

[FR Doc. 94-11410 Filed 5-11-94; 3:08 pm]
BILLING CODE 3510-DT-P

Foreign-Trade Zones Board

[Docket 79-91]

Foreign-Trade Zone 72, Indianapolis, IN; Withdrawal of Application for Subzone Status for Hurco Machine Tool Plant

Notice is hereby given of the withdrawal of the application submitted by the Indianapolis Airport Authority, grantee of FTZ 72, requesting special-purpose subzone status for the machine tool manufacturing facility of Hurco Companies, Inc., located in Indianapolis, Indiana. The application was filed on November 6, 1991 (56 FR 65040, 12/13/91).

The withdrawal is requested by the applicant because of changed circumstances, and the case has been closed without prejudice.

Dated: May 3, 1994

John J. Da Ponte, Jr.,
Executive Secretary.

[FR Doc. 94-11447 Filed 5-10-94; 8:45 am]
BILLING CODE 3510-DS-P

[Docket 4-94]

Foreign-Trade Subzone 59A, Lincoln, NE; Request for Expanded Manufacturing Authority; Kawasaki Motors Manufacturing Corporation U.S.A. Plant (Utility Work Trucks); Extension of Public Comment Period

The comment period for the above case, requesting authority to manufacture utility work trucks under zone procedures within Subzone 59A (59 FR 2592, 1/18/94; 59 FR 14607, 3/29/94), is further extended to June 2, 1994, to allow interested parties additional time in which to comment on the proposal.

Comments in writing are invited during this period. Submissions should include 3 copies. Material submitted will be available at: Office of the Executive Secretary, Foreign-Trade Zones Board, U.S. Department of Commerce, room 3716, 14th and Pennsylvania Avenue NW., Washington, DC 20230.

Dated: May 3, 1994.

John J. Da Ponte, Jr.,
Executive Secretary.

[FR Doc. 94-11448 Filed 5-10-94; 8:45 am]
BILLING CODE 3510-DS-P

International Trade Administration

Export Trade Certificate of Review

ACTION: Notice of application to amend certificate.

SUMMARY: The Office of Export Trading Company Affairs, International Trade Administration, Department of Commerce, has received an application to amend an Export Trade Certificate of Review. This notice summarizes the proposed amendment and requests comments relevant to whether an amended Certificate should be issued.

FOR FURTHER INFORMATION CONTACT: W. Dawn Busby, Director, Office of Export Trading Company Affairs, International Trade Administration, (202) 482-5131. This is not a toll-free number.

SUPPLEMENTARY INFORMATION: Title III of the Export Trading Company Act of 1982 (15 U.S.C. 4001-21) authorizes the Secretary of Commerce to issue Export Trade Certificates of Review. A Certificate of Review protects the holder and the members identified in the Certificate from state and federal government antitrust actions and from private, treble damage antitrust actions for the export conduct specified in the Certificate and carried out in compliance with its terms and conditions. Section 302(b)(1) of the Act

APPENDIX B
SUMMARY OF PUBLIC COMMENTS

In response to the Department's request for comments as part of its investigation under Section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862), to determine the effects on the national security of imports of crude oil and petroleum products, the Department received 69 comments. Among those submitting comments were members of Congress, foreign government officials, state government officials, trade and professional associations (including those representing petroleum producers, refiners, distributors of refined petroleum products, or energy-intensive industries), energy consumer organizations, company executives, union officials, and individuals. This Appendix summarizes those comments.

Most commenters acknowledged the decline in U.S. oil production and our increased dependence on imported oil. They held varying opinions, however, on the causes for the decline of production and on the extent to which increased dependence on imports would adversely affect U.S. national security.

Some commenters who represented independent oil producers emphasized the role of inexpensive imported oil in the decline of U.S. oil production. They cited the large number of high-cost marginal wells that have been shut-in or abandoned and explained why the availability of low-cost foreign oil made it difficult for domestic producers to secure the necessary capital to explore for and to develop new reserves. They also stated that the decline in domestic production and exploration was destroying the infrastructure of the U.S. petroleum industry (e.g., related service industries) and that this, along with the failure to develop new reserves, would make it difficult to surge domestic production in the event of a significant and prolonged supply disruption.

Other commenters, who opposed import fees, import quotas, or any other restrictions on oil imports, argued that the decline in U.S. crude oil production was due largely to geological factors. They claimed that most low-cost domestic reserves have already been developed. Many of these commenters argued that import fees, quotas, or other restrictions would help domestic producers only at a steep cost to other sectors of the U.S. economy (e.g., energy-intensive industries, including the petrochemical industry). Most of those who opposed import restrictions, however, were not opposed to other kinds of assistance (e.g., tax incentives, opening additional areas to exploration, etc.).

PRESENTING COMMENTS:

| <u>NAME</u> | <u>BXA FOIA NO.</u> | <u>PAGE NO.</u> |
|--|---------------------|-----------------|
| Ackell, Mr. Joseph J. (Independent Fuel Terminal Operators Assoc.) | 232NY-10 | B-6 |
| Alcorn, Mr. George A. (Chairman, Independent Petroleum Assoc. of America) | 232TX-1 | B-6 |
| Bennett, Mr. John (Bennett Production Corporation) | 232TX-6 | B-7 |
| Biggs, Mr. Danny (President, Kansas Independent Oil & Gas Assoc.) | 232TX-4 | B-7 |
| Boyce, Mr. Albert G. (Managing General Partner, Tannehill Oil Co.) | 232CAL-7 | B-7 |
| Burks, Mr. Herchel (President, Local Union 4134, United Steelworkers of America) | 232TX-7 | B-8 |
| Burns, Mr. Timothy F. (Vice President, Federal Government Relations, Chemical Manufacturers Association) | OIL232-4 | B-8 |
| Caperton, The Honorable Gaston (Governor of West Virginia) | 232TX-27 | B-9 |
| Chenoweth, Mr. James W. (Director, of Corporate Affairs, Lone Star Steel Co.) | 232TX-29 | B-9 |
| Clark, Mr. Paul (President, Clark Operating, Inc.) | 232TX-8 | B-10 |
| Crippen, Mr. Dick (Exec. Dir., Conservation Committee of California Oil & Gas Producers) | 232CAL-5 | B-10 |
| Damron, Mr. R. David (Petrochemical Energy Group and the Coalition on Energy Taxes) | 232TX-3 | B-11 |
| Dunlop, Mr. Charles L. (Independent Refiners Coalition) | 232NY-2 | B-11 |
| Embassy of Venezuela | OIL232-5 | B-12 |
| Ernst, Mr. Paul (V.P., Johnson & Ernst Operating Co.) | 232TX-9 | B-12 |
| Fields, Congressman Jack (Texas) | 232TX-28 | B-13 |
| Fox III, Mr. David (Independent Oil & Gas Assoc. of W. VA) | 232NY-5 | B-13 |
| Garlick, Mr. David M. (Director, Oil and Gas Division, Railroad Commission of Texas) | 232TX-25 | B-13 |
| Giglotti, Mr. Michael A. (Independent Oil & Gas Assoc. of PA) | 232NY-13 | B-14 |
| Ginnings, Mr. J.I. (Ginnings Co.) | 232TX-10 | B-14 |

| <u>NAME</u> | <u>BXA FOIA NO.</u> | <u>PAGE NO.</u> |
|---|---------------------|-----------------|
| Godown, Mr. Lee R. (Chief of Staff for Legislative Affairs, Congressman Bob Wise of West Virginia) | 232NY-15 | B-14 |
| Hall, Mr. James C. (President, Drilling and Production Co.) | 232CAL-3 | B-15 |
| Hanson, Ms. Christine (Exec. Dir., Interstate Oil & Gas Compact Commission) | 232TX-20 | B-15 |
| Hatch, Mr. Raymond L. (V.P., Corporate Development, Berry Petroleum Co.) | 232CAL-8 | B-16 |
| Henderson, Mr. Kenneth P. (Chief Deputy, Division of Oil, Gas, & Geothermal Resources, California Dept. of Conservation) | 232CAL-2 | B-17 |
| Hickel, The Honorable Walter J. (Governor of Alaska) | 232CAL-13 | B-17 |
| Huber, John J. (Government Relations Counsel, Petroleum Marketers Association of America) | OIL232-8 | B-18 |
| Hupp, Mr. Donald J. (President, North Texas Oil & Gas Assoc.) | 232TX-5 | B-18 |
| Hurt, Mr. Clint (Independent Oil & Gas Assoc. of W. VA) | 232NY-6 | B-19 |
| Independent Fuel Terminal Operators Association | OIL232-2 | B-19 |
| Independent Refiners Coalition | OIL232-6 | B-19 |
| Junco, Mr. Gary J. (President, Enserch Exploration, Inc.) | 232TX-21 | B-20 |
| Kirk, Mr. Ronald (Secretary of State, Texas) | 232TX-26 | B-20 |
| Kozlowski, Mr. Eugene C. (President, Nakoil, Inc.) | 232CAL-9 | B-21 |
| Kramer, Mr. Daniel P. (Exec. Dir., California Independent Petroleum Assoc.) | 232CAL-6 | B-21 |
| Lazenby, Ms. Virginia B. (National Stripper Well Assoc.) | 232NY-12 | B-22 |
| Lichtblau, Mr. John H. (Petroleum Industry Research Foundation, Inc.) | 232NY-3 | B-22 |
| Linn, Mr. Michael C. (Independent Oil & Gas Assoc. of NY) | 232NY-9 | B-23 |
| Martineau, Mr. David F. (Exploration Manager, the Pitts Energy Group, & V.P., North Texas Oil & Gas Assoc.) | 232TX-11 | B-23 |
| McCarley, Mr. Lon A. | OIL232-12 | B-24 |
| McDougall, Mr. Robert E. (President, Phoenix Production Co.) | 232CAL-4 | B-24 |

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| Polk, Mr. Jim M. (President, West Central Texas Oil & Gas Assoc.) | 232TX-22 | B-27 |
| Powers, Mr. Louis W. (President, Powers Petroleum Consultants) | 232TX-2 | B-28 |
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COMMENTS RECEIVED AS PART OF NATIONAL
SECURITY INVESTIGATION OF IMPORTS OF CRUDE OIL
AND PETROLEUM PRODUCTS

Mr. Joseph J. Ackell
Vice President
Independent Fuel Terminal Operators Association (IFTOA)

Comments dated May 23, 1994 (232NY-10):

The IFTOA strongly opposes oil import fees or duties, the mandatory adjustment of import levels, or any other "action that would artificially increase the price of petroleum products available for domestic consumption."

"Oil import restrictions, regardless of their form or structure, will increase the price of both foreign and domestic oil....U.S. businesses that are energy intensive will lose their competitive edge because foreign producers will not be subject to these fees." "...IFTOA supports fair, equitable measures to assist the domestic producing sector, such as production tax incentives and non-tax incentive programs."

Mr. George A. Alcorn
Chairman
Independent Petroleum Association of America

Comments dated June 13, 1994 (232TX-1):

"The primary reasons given in 1989 for finding that oil imports threaten to impair U.S. national security are still valid:

- Declining domestic production (down 1.3 MM/D between 1988 and 1993)
- Rising oil imports (up more than 1 MM/D between 1988 and 1993)
- Growing Free World dependence on potentially insecure sources of supply (U.S. reliance on OPEC sources increased between 1988 and 1993 from 47.6 percent to 51.1 percent of total oil imports. In 1993, the U.S. imported more barrels of oil from Arab OPEC and Persian Gulf suppliers than in 1988.)
- "Vulnerability to a major supply disruption" (The Office of Technology Assessment, in a study conducted 3 years ago, found that U.S. "oil replacement capability had eroded significantly".)

In developing a remedy, "we urge the Administration to look at all options." For example, a bipartisan group of Congressmen and Senators are discussing a production-based

tax credit. "To be useful to producers, however, these tax credits must be fully creditable against Alternative Minimum Tax. They have to be easily monetized, preferably refundable, if they are to be a substitute for the price levels needed to preserve existing production and to encourage new investment in drilling and expanded recovery technology."

Mr. John E. Bennett
Vice President
Bennett Production Corporation

Comments dated June 13, 1994 (232TX-6):

"It is our hope that the Commerce Department will urge the Congress and the Administration to provide tax credits or other incentives to our industry..."

Mr. Danny Biggs
President
Kansas Independent Oil & Gas Association

Comments dated May 26, 1994 (232TX-4):

"Our infrastructure is in shambles. Rigs are being cannibalized or cut up for junk. The industry has lost thousands of employees since the last price collapse in December of 1993. Kansas oil production is the lowest since 1934." "...The major oil companies are pulling out of Kansas by shutting their headquarters, reducing employment, and selling their oil producing properties." "The oil refineries in Kansas are quickly disappearing...Kansas had 11 refineries operating during the 1960-1980 period when our nation did not encourage imports of crude oil and refined products. Now Kansas has four." "Another underlying negative impact on the oil and gas energy industry that remains behind is the dramatically increased number of unfunded but mandated environmental laws and restrictions imposed on the industry..."

Mr. Albert G. Boyce Jr.
Managing General Partner
Tannehill Oil Company

Comments dated June 8, 1994 (232CAL-7):

"The cost of obtaining and renewing permits and complying with laws and regulations is becoming a substantial economic burden." "...these costs are at the expense of drilling new or replacement wells, and hence, increased production and jobs...The most immediate impact for California oil prices would be to repeal the ban on the export of Alaska North

Slope (ANS) oil. This will give California producers a projected \$1.00 to \$2.50 price increase by eliminating the glut of this oil coming into our state...Tax incentives and credits would be useful in generating capital for development and operational improvements, but the fact remains this only works if there is taxable income. The alternative minimum tax could not be applicable to these incentives in order for them to be of benefit...Some type of 'floor price for California and domestic oil production' would give independents a basis upon which we could plan for the future, make investments and expenditures to increase production, hire people back, and create more business and jobs for affiliated supporting industries."

Mr. Herchel Burks

President

Local Union 4134, United Steelworkers of America

Lone Star, Texas

Comments dated June 10, 1994 (232TX-7):

"About ten years ago Lone Star had more than 6,500 employees. Now we're down to about 1,500...The only way to rebuild our workforce, in case of an emergency, would be to train them on the job. This could easily take years to regain the expertise we have already lost...If the domestic oil and gas industry continues to deteriorate, plants like Lone Star will cease to exist. The support infrastructure that the oil and gas industry cannot exist without is now disappearing."

Mr. Timothy F. Burns

Vice President

Federal Government Relations

Chemical Manufacturers Association

Comments dated May 12, 1994 (OIL232-4):

"An oil import fee, tax, or quota would not only raise the price of imported oil, but also that of domestic oil and natural gas as well. U.S. manufacturing costs would increase disproportionately to those of foreign manufacturers with whom the U.S. competes in domestic and world markets. This situation would jeopardize sales and jobs as well as deepen the country's trade deficit. Energy-intensive industries would be hardest hit, including the chemical industry...The chemical industry would be negatively impacted by an oil import fee or related mechanism due to its unique reliance on oil and natural gas for both power and raw material uses, and therefore, strongly opposes such proposals...There are actions that the federal government can take that would benefit both the

domestic oil and natural gas industries and the country's economy. These actions include:

- Create policies which encourage diverse import options
- Expand the availability for exploration and development of those federal lands with the most promising potential for oil and gas
- Implement supply-enhancing proposals in the Department of Energy's Domestic Natural Gas and Oil Initiative."

The Honorable Gaston Caperton

Governor of West Virginia

Chairman, Interstate Oil & Gas Compact Commission

Comments dated June 13, 1994 (232TX-27):

An IOGCC study, entitled The Potential of Enhanced Oil Recovery in Oklahoma, that was published in 1987, concludes that "there is a great deal of oil remaining in the ground in simply the KNOWN reservoirs, and with proper price incentives that oil will be produced...The IOGCC has long been an advocate for increased use of technological recovery enhancements for oil and gas...Increased attention to technology transfer by both the states and the federal government will yield positive results in terms of petroleum resources recovered."

Mr. James W. Chenoweth

Director of Corporate Affairs

Lone Star Steel Company

Comments dated June 13, 1994 (232TX-29):

Supports the package of emergency measures to help domestic petroleum industry described in the IPAA Newsfax of March 28, 1994, including:

- Tax credit to preserve marginal production
- Tax credit to encourage new drilling
- Deductions of geological and geophysical costs
- Elimination of net income limitations on percentage depletion
- Abolishment of existing prohibitions against the export of oil (with provisions to protect the domestic merchant marine industry)
- Tax credit to encourage new production from the Outer Continental Shelf and frontier areas
- Reduce financial responsibility provisions of the Oil Pollution Act of 1990
- Reassess royalty laws and extend royalty reductions to marginal production and frontier areas
- Revise regulations on royalty collections so that natural gas production is not unfairly penalized

- Minimize additional burdens in regulations being considered by the Administration for underground injection control and natural resources damage assessment
- Persuade Interior Department not to change land management policies from multiple use to a new approach called "ecosystem management"

Mr. Paul Clark
President
Clark Operating, Inc.

Comments dated May 23, 1994 (232TX-8):

"The premature abandonment of stripper wells caused by the low oil price coupled with the pessimism in our industry today tell me that the level of imports is not going to do anything but increase unless something is done to see that the producer receives a viable price for his crude oil... Like most small companies, Clark Operating, Inc., cannot afford the big drilling budget needed to find new reserves by wildcatting. Instead, it buys properties that are no longer economical for the big companies to operate and attempts to obtain a profit through its lower overhead and direct cost containment. Recently, Clark Operating, Inc., has been unable to find such properties to purchase, because the larger companies have begun to plug wells as a result of low oil prices or potential environmental liability. Failure to acquire additional properties has caused the company's production and its income to decline significantly. Prolonged continuation of this pattern could eventually force Clark Operating, Inc., out of business.

Mr. Dick Crippen
Executive Director
Conservation Committee of California Oil & Gas Producers

Comments dated June 7, 1994 (232CAL-5):

"Even though posted prices are up from the low of December 1993 and January 1994, 19 percent of the State's production is still uneconomic...750 M/D becomes unprofitable on a cash basis at \$5 per barrel, and the break-even point of 100 percent profitable is in the \$14 to \$15 range."

Mr. R. David Damron
Manager, Government Affairs
Hoechst Celanese Corporation
(on behalf of The Petrochemical Energy Group and
the Coalition on Energy Taxes)

Comments dated May 23, 1994 (232TX-3):

"An oil import tax or fee operates to drive the price of both foreign and domestic oil above the world oil price. This directly affects the ability of domestic enterprises to compete with foreign sources, thereby reducing domestic jobs and the ability of domestic companies to compete in both the American marketplace and the world marketplace...The petrochemical industry's unique vulnerability to an oil import fee is derived from the fact its production costs reflect the cost of the oil and natural gas derivatives used as raw materials in the manufacture of the products, together with the cost of the fuel used in the manufacturing process...Unpleasant as it is to accept, the basic premise underlying the oil import fee or quota no longer is operative. A reduction in imports can no longer be completely offset by present deliverability from domestic production."

Mr. Charles L. Dunlop
President and Chief Operating Officer
Crown-Central Petroleum Corporation
(on behalf of the Independent Refiners Coalition)

Comments dated May 18, 1994 (232NY-2):

"...if any import fee is placed on imported crude oil or if any other remedial action is taken that increases the cost of crude oil, a proportionally higher fee must be placed on imported gasoline such that the existing tariff differential is preserved...Without corresponding action on imported gasoline, domestic refiners would be severely disadvantaged by action on imported crude oil which would raise the cost of refiners' raw material. Furthermore, without companion action on imported gasoline, the goal of a crude oil import fee could be thwarted by a shift of U.S. imports from crude oil to gasoline...Ample justification exists for a finding that imports of gasoline and blending stocks alone pose a threat to national security. According to recent reports, domestic refining capacity declined by 20 percent in the 1980s and is expected to decline by an additional 10 percent by the year 2000. These refinery shutdowns can be attributed to the high environmental compliance costs accruing to U.S. refiners and to the competitive advantage of lower cost gasoline accruing to foreign refiners based on the absence of similar compliance costs...The Secretary

should recommend that the President impose an import fee on gasoline and blending stocks amounting to the difference between U.S. and foreign environmental compliance costs, \$.07 cents per gallon and increasing \$.01 per gallon until it reaches \$.12 per gallon in the year 2000."

Embassy of Venezuela

Washington, DC

Comments dated May 12, 1994 (OIL232-5):

"Oil imports do not constitute a threat to U.S. energy security per se; rather, oil imports originating from reliable suppliers, particularly those in the Western Hemisphere, contribute to the energy security of the United States...Venezuela believes that development of the Orinoco Belt and other reservoirs in the Western Hemisphere will strengthen U.S. energy security in the long run...In terms of reliability, the expansion of supplies in the Western Hemisphere is tantamount to developing domestic supplies in the United States...Should proposals to limit oil imports be actively considered, they should contain an exemption for Western Hemisphere countries...Because almost 70 percent of Venezuelan crude oil and petroleum product exports are destined for the United States, any program that would limit oil imports, either by tax or by quota, would have a severe economic effect on Venezuela."

Mr. Paul Ernst

Vice President

Johnson & Ernst Operating Company

Comments dated May 23, 1994 (232TX-9):

"Because of the producing characteristics of the wells we have shut-in (high water cut, corrosion, and scale deposition tendencies), it is very improbable that we will return them to production without a stable oil price of around \$25.00/bbl...The erosion of oil prices has had a devastating effect upon our ability to replace our oil reserve base. In an eight year period prior to 1986, we drilled 293 wells. This exploration effort helped to maintain our reserve base. Since 1986, we have drilled only 18 wells. This lack of exploration is totally due to a lack of investment capital...A stable, I emphasize stable, oil price of \$20 to \$25 per barrel would be the best incentive to revive our domestic oil industry, particularly the stripper producing segment of our industry."

Congressman Jack Fields of Texas
2228 Rayburn House Office Building
Washington, DC 20515

Comments dated June 20, 1994:

"Congressman Fields introduced legislation in the 103rd Congress that would have allowed the President to lease certain Outer Continental Shelf (OCS) areas, provided that a number of stringent conditions were met:

- The Energy Information Agency determines that the level of crude oil imports exceeds 50 percent for more than four consecutive months
- The only areas to be leased would be those OCS planning areas that have undergone sufficient environmental review to fully comply with the National Environmental Policy Act
- The Minerals Management Service certifies that the proposed planning area has significant quantities of oil or gas resources."

"While much has been written about OCS leasing and development, there is no evidence that OCS leasing is a danger to our environment. In fact, the OCS program is our nation's safest energy extraction program...According to the National Academy of Sciences, oil from tankers and other forms of transportation account for 45 percent of oil pollution in the sea, while oil from offshore production is less than two percent...At a minimum, the President should be given the authority to lease certain offshore areas when the level of imports reaches 50 percent."

Mr. David Fox III
Executive Vice President
McJunkin Appalachian Oil Field Supply Co., Inc.

Comments dated May 25, 1994 (232NY-5):

Mr. Fox discusses the massive reductions in revenues and workforce in the oil field service industry.

Mr. David M. Garlick
Director, Oil and Gas Division
Railroad Commission of Texas

Comments dated June 7, 1994 (232TX-25):

"We have determined that one of the most serious distortions caused by low world oil prices is the premature abandonment of producing oil fields...The Commission has also determined that low world oil prices have distorted the incentives to explore new fields...The Texas Railroad Commission

recommends that the Federal government provide income tax credits to encourage domestic production."

Mr. Michael A. Giglotti
President
Independent Oil and Gas Association of Pennsylvania

Comments dated May 20, 1994 (232NY-13):

"...single most important reason for the decline of the Pennsylvania petroleum industry is the price available at the wellhead for our oil and gas production. This price is directly affected by the market forces impacted by imported crude oil prices...In addition, ... more than 90 percent of the wells in Pennsylvania are stripper wells...These wells are especially sensitive to any changes in price paid for production. This is due to the level of costs necessary to operate the wells compared to any change in wellhead price..."

Mr. J.I. Ginnings
Ginnings Company

Comments dated May 23, 1994 (232TX-10):

"Increasing imports are necessitated by the precipitous decline in domestic production, which is the result of an indifferent National Government to the predatory pricing of oil exporting nations and the unfriendly business climate here in the United States, particularly in the area of Environmental Rule...The domestic oil industry has a good record of environmental performance, but environmental regulation must be based upon demonstrated need, scientific integrity, and positive cost/benefit results. The only possibility to both comply with environmental mandates and preserve our domestic oil production is an adequate and stable price for oil."

Mr. Lee R. Godown
Chief of Staff for Legislative Affairs,
Congressman Bob Wise, 2nd District, West Virginia
2434 Rayburn House Office Building
Washington, DC

Comments dated June 6, 1994 (232NY-15):

"Cheap foreign oil and gas have and continue to undercut the ability of" domestic oil and gas producers, and collateral businesses in the steel and supplier areas, "to attract the investors they need to create the capital pools to keep their businesses healthy...Our domestic oil and gas industry ... is hanging on by its fingernails. Soon, the ability to

attract capital, to have the collateral supplier industries in place, to keep up with technology, and to be able to react quickly to future energy crises will be gone. This is not an industry that we can resuscitate overnight should the emergency need arise."

Mr. James C. Hall
President
Drilling and Production Company

Comments dated June 8, 1994 (232CAL-3):

"...the lower valued crude oil and higher operating costs make the California petroleum industry vulnerable to any price fluctuation...The collapse in oil prices has had a dramatic effect on California production...Much of the damage that has been done to the industry is irreversible. Many of the solutions that are available can only provide greater longevity of existing fields."

Mr. Hall makes the following recommendations:

- Provide more favorable tax treatment for marginal well production such as that proposed by Senator David Boren, D-Oklahoma.
- Refrain from passing new legislation that would place an undue burden on the industry until a thorough review of the impact of such legislation can be conducted.
- Review existing local, state, and Federal regulations to identify those that are unnecessarily burdensome on the domestic petroleum industry.
- Remember that "there are regional differences that require specific solutions".
- Require Energy Impact Reports, as proposed by former Congressman Dannemeyer, to ensure that, when changes in land use ordinances and the imposition of fees and regulations are contemplated, "the need for a strong domestic oil and gas industry and the importance of crude oil supply for national security is considered."
- "Industry and government cost sharing programs such as the newly created Petroleum Technology Transfer Council (PTTC) can accelerate the time it takes to implement new and available technology below the current ten to fifteen years."

Ms. Christine Hanson
Executive Director
Interstate Oil and Gas Compact Commission

Comments dated May 20, 1994 (232TX-20):

" Marginal production has dropped steadily from the 1984 high of 463 million barrels to 368 million barrels in

1992...The IOGCC National Stripper Well Survey shows "an average annual abandonment of 16,326 wells per year over the last decade...The factors which have forced many of these small wells to be idled or sealed are still at work -- low world oil price and high operating costs."

Ms. Hansen enclosed a copy of the December 1993, IOGCC resolution that identified various measures to encourage domestic production:

- Act to "relieve domestic crude oil producers of excessive and regressive taxes and regulations"
- Enact energy tax initiatives, credits and deductions to "reward and stimulate private investment in increased exploration, drilling and production of domestic crude oil, including but not limited to:
 - a) full deductibility for federal income tax purposes of actual exploration drilling and completion costs; and
 - b) income tax credit for all crude oil produced from new field discovery wells, and enhanced recovery projects.
- Exercise restraint in "instituting new regulatory initiatives that restrict and penalize and which charge the cost thereof to the domestic oil produced".
- Adopt any of the following measures to stimulate new domestic exploration, drilling, and production and to prevent premature abandonment of existing stripper wells:
 - a) A federal import tariff or transportation tax on all non-North American crude oil and refined petroleum products to be activated only when the price of crude oil falls below the minimum fair price and reflecting only the price differential between domestic and non-North American crude.
 - b) A federal tax credit or transferable voucher payable to producers of domestic crude oil of sufficient size to ensure that domestic producers receive an amount equal to the differential between imported and domestic crude oil to ensure the greatest benefit to the energy consumer."

Mr. Raymond L. Hatch
Vice President, Corporate Development
Berry Petroleum Company

Comments dated June 9, 1994 (232CAL-8):

"As a result of the Alaskan North Slope export ban, artificially low prices exist for crude oil in California. A study by Professor Martin Carnoy of Stanford University in December 1993 shows that lifting the ban on the export of Alaskan North Slope Crude could add as much as \$2.50 to the

price of crude oil in Alaska and California." In addition, Dr. Carnoy estimates production increases of 300,000 BOPD in Alaska, when foreign markets are opened, and an increase of 100,000-200,000 BOPD of heavy oil in California...Lifting the ban on the export of ANS and the resulting increase in crude price may result in a somewhat lower refinery margin but will not result in an increase in gasoline price to the California consumer."

Mr. Hatch also commented on the significantly higher cost of doing business in California because of regulatory requirements.

Mr. Kenneth P. Henderson

Chief Deputy, Division of Oil, Gas, & Geothermal Resources
California Department of Conservation

Comments dated June 8, 1994 (232CAL-2):

Mr. Henderson blames the long-term decline in California crude oil production on "the drop in the price of crude oil" and on the costs of producing crude oil in California, including the extra costs of producing heavy crude and regulatory compliance costs.

The Honorable Walter J. Hickel
Governor of Alaska

Comments dated June 15, 1994 (232CAL-13):

Governor Hickel urges that the export ban on Alaskan North Slope (ANS) crude oil be lifted: "An obvious and simple part of the remedy to the continued decline in national petroleum production is to lift the export ban on Alaska North Slope crude oil...To do so will enhance the nation's petroleum security because it will encourage development and production of domestic supplies in both Alaska and California." Governor Hickel also urges that oil exploration be permitted in certain parts of the Arctic National Wildlife Refuge (ANWR): "The State of Alaska would like to see the Coastal Plain of the Arctic National Wildlife Refuge developed in a responsible manner...The area of interest for development is small, given the size of the Coastal Plain, and Alaskans have proven that we can supervise resource development with environmentally high standards."

Mr. John J. Huber
Government Relations Counsel
Petroleum Marketers Association of America (PMAA)

Comments dated May 10, 1994 (OIL232-8):

The PMAA strongly opposes "the imposition of an oil import fee or other unequal assessment on imported crude oil and finished products. If such an assessment is levied, it will inevitably result in regional inequalities, competitive inequalities within the petroleum industry, hardships on persons using home heating oil, and increased friction with our trading partners...Rather than imposing import fees or other assessments on crude oil or finished products, we should provide drilling incentives, allow for the expensing of environmental costs, or provide credits for environmental compliance. We should also encourage our trading partners to adopt the environmental standards which American refiners and producers are expected to uphold."

Mr. Donald J. Hupp
President
North Texas Oil and Gas Association

Comments dated May 23, 1994 (232TX-5):

Stripper wells "make up the vast majority of North Texas wells, almost 90 percent...A flood of imported oil drove the price down to levels where many high-cost wells became uneconomical...As major oil companies have taken opportunities to explore for new reserves outside of the U.S., independent producers, their families, their employees, their businesses, and their communities remain at the heart of the domestic industry...They are the ones whose production has been lost and replaced by imported oil. They are the ones who, because of inadequate and unstable prices, have been forced to prematurely plug and abandon their wells and reserves--the true strategic reserves of the U.S. They are the ones who have been forced to take people's jobs away from them by the thousands. They are the ones who have come up empty handed when trying to secure capital to drill new wells. They are the ones with secondary recovery projects sitting on the shelf because the high cost of such recovery techniques cannot be justified with low unstable prices. They are the ones who struggle to survive daily under the burden of onerous regulatory and environmental costs...Texas recently implemented tax incentive programs that have encouraged the drilling of hundreds of new wells and the production of sizable quantities of oil and natural gas that can work on the national level."

Mr. Clint Hurt
President
Clint Hurt and Associates
(on behalf of the Independent Oil and
Gas Association of West Virginia)

Comments dated May 24, 1994 (232NY-6):

"As we depend more and more on imported oil, the infrastructure required for domestic production is rapidly being destroyed. Our industry has lost more than 400,000 skilled drilling jobs in the past decade and our drilling equipment is falling into disrepair or being sold to foreign owners."

Independent Fuel Terminal Operators Association (IFTOA)

Comments dated May 11, 1994 (OIL232-2):

"IFTOA does not oppose fair and equitable measures to restore the domestic producing sector. Members need strong domestic producers and refiners to provide a secure supply of product at a competitive price. However, IFTOA adamantly opposes an import fee or other similar measures, which may help the domestic producing industries but at the direct expense of marketers and consumers by forcing price increases and supply restrictions. If the Department's study indicates that measures must be taken to fortify the domestic sector, IFTOA encourages the Department to consider alternatives such as production tax incentives and non-tax incentive programs."

Independent Refiners Coalition (IRC)

Comments dated May 12, 1994 (OIL232-6):

The IRC urges the Department to take action, not only on crude oil imports, but on imported gasoline, as well: "Without corresponding action on imported gasoline, domestic refiners would be severely disadvantaged by action on imported crude oil which would raise the cost of refiners' raw material. Furthermore, without companion action on imported gasoline, the goal of a crude oil import fee could be thwarted by a shift of U.S. imports from crude oil to gasoline." Absent any determination with regard to imports of crude oil, the IRC would still support remedial action on imported gasoline (i.e., motor fuel and motor fuel blending stock). "In the U.S., refiners must comply with strict environmental laws, and the cost of such compliance is severely injuring the domestic industry because cheaper imports, not subject to such environmental compliance costs, have entered the U.S. market with the marginal barrel of

imported gasoline setting the market price. This situation creates a significant domestic competitive disadvantage because domestic refiners cannot recover their capital costs associated with environmental compliance...We propose that the President place an import fee on imported gasoline approximately equalling the embedded cost differential of environmental costs starting at \$.07 cents per gallon in 1994 and increasing \$.01 cent per year thereafter until it reaches \$.12 cents per gallon in 2000."

Mr. Gary J. Junco
President
Enserch Exploration, Inc.

Comments dated June 9, 1994 (232TX-21):

Mr. Junco urges the U.S. to impose an import fee on foreign crude oil. He considers this option to be preferable to a floor price for domestic crude oil, because a floor "would price domestic crude at the margin, insuring that it is the last barrel purchased." In lieu of an import fee or floor price, Mr. Junco suggests the following:

- Allow environmentally sound exploration of Federal lands, including the Arctic National Wildlife refuge and the Outer Continental Shelf.
- Eliminate tax disincentives.
- Adopt tax policies to encourage hydrocarbon exploration and to promote the use of natural gas as an alternative to imported oil.
- Adopt a comprehensive national energy policy that recognizes the important role the domestic energy industry plays in the U.S. economy."

Mr. Ronald Kirk
Secretary of State, Texas

Comments dated June 13, 1994 (232TX-26):

"We have allowed ourselves to become increasingly dependent on cheap foreign oil. Our national addiction has become so powerful that we have developed foreign and trade policies which actually undercut our own domestic oil industry and threaten our national security...We need a national energy policy."

Mr. Eugene C. Kozlowski
President
Makoil, Inc.

Comments dated June 8, 1994 (232CAL-9):

"Our company is a small independent oil company which is being forced to survive by forming a joint venture in the Republic of Georgia for the purpose of drilling and producing crude oil...The funds we will spend in the Republic of Georgia are funds that would normally have been spent in the United States ...The United States has no shortage of crude oil reserves. The finding of these reserves, however, are being stifled by excessive taxation, instability in commodity pricing, excessive environmental controls, government agency harassment, and a long standing impression that the oil industry is basically 'bad'...If a quota system was initiated in which the U.S. would not import more than 50 percent of its crude and product requirements, the price of domestic crude would increase and more drilling and exploration would be promoted."

Mr. Daniel P. Kramer
Executive Director
California Independent Petroleum Association

Comments dated June 7, 1994 (232CAL-6):

"Of the approximately 42,000 producing wells in California, about half are classified as stripper wells. Generally, these wells have high operating costs per barrel of production. This fact, along with the high energy costs associated with producing heavy oil, results in much higher operating costs for California production when compared with other producing regions in the United States...With 38 separate government agencies to report to, and 150 specific regulations to adhere to, it is a testament to the remaining producers' business acumen, environmental consciousness and, unfortunately, just plain luck that they are still in the arena. Couple these costs with an historical 40 percent to 60 percent price differential between the California benchmark crude oil Kern River/Midway-Sunset and U.S. benchmark West Texas Intermediate and you have a recipe for economic disaster...When the price for heavy oil in the early '80's was in the mid and low \$20 range, many California reserves could be economically developed. Now, with the extreme price fluctuations between \$8 and \$15, many companies are having significant difficulty making an adequate return on investment."

Ms. Virginia B. Lazenby
President
National Stripper Well Association

Comments dated June 6, 1994 (232NY-12):

"Nearly 78 percent of the nation's oil wells are stripper wells, with an average production per well in 1991 of 2.2 barrels per day. Most of these wells are now uneconomic, operating at a loss. These marginal wells, defined in the tax code as those wells that daily produce less than 15 barrels of oil (or the natural gas equivalent) or which produce heavy oil. are essential to our domestic energy supply. They provide approximately 20 percent of domestic oil production in the lower 48 states...Price is everything. The NSWA firmly believes that oil imports need to be adjusted directly through a floor price and import fee on oil. Indirect methods of adjusting imports, for instance, increasing domestic production through tax incentives, can only be useful if they are designed to get operating capital into the hands of stripper well producers when prices fall below a certain level. The primary goal should be to maintain our vital existing marginal production as well as to encourage new drilling. In addition, to assist marginal production, the National Stripper Well Association has recommended that the Department of Energy establish an emergency program to purchase stripper well production for the strategic petroleum reserve."

Mr. John H. Lichtblau
Chairman and C.E.O.
Petroleum Industry Research Foundation, Inc.

Comments dated May 23, 1994 (232NY-3):

"Any measure imposed to achieve a significant reduction in oil imports from their current or projected level under existing market conditions would raise the price of oil to the point where it would cause measurable damage to the U.S. economy...the decline in U.S. production since 1985 is clearly due, at least directionally, to a structural geological reality, given the present state of technology...Our current import dependency of 43 percent is quite low relative to that of most other industrial and industrializing nations...The risk of Middle East oil becoming a pawn in the East-West contest has, of course, ended with the Cold War...Future disruptions, if any, will come mainly out of local conflicts. They could still be large, but they will be limited in scope and duration...From an historical perspective these occasional future disruptions may not appear significant. But at the time of their occurrence, their impact on major importers such as

the U.S. could be severe. Thus, the ability to offset the temporary loss of imports, not only for domestic economic reasons, but even more to give the freedom to act during such a disruption, may be in the national interest. Our Strategic Petroleum Reserve (SPR) program has been created for precisely this purpose...The right policy at the present time would be to fill our SPR as rapidly as possible, while world oil prices are relatively low, to the 750 million barrel level for which the capacity and infrastructure are already in place...Acceptance of the argument that oil imports do not present a threat to U.S national security does not mean that the government should be unconcerned with the domestic oil producing industry. A proactive policy to stimulate additional oil and gas drilling through tax incentives and royalty waivers for specifically defined new wells, as well as removal of existing federal and state offshore acreage restrictions, could be viewed as being in the national interest, not because of its potential impact on oil imports but because of its significant real economic impact on a core regional industry."

Mr. Michael C. Linn

Director

Independent Oil & Gas Association of New York

Comments dated May 25, 1994 (232NY-9):

"Because of low gas and oil prices, and their volatility, activity in terms of new wells drilled and completed has declined dramatically...When domestic producers are trying to finance future drilling, it is through raising capital from investors or from bank or bank-like institutions. Volatility in oil prices...curtails most lending or investment. As a result, fewer and fewer wells are drilled ... more reliance on foreign imported oil...can lead to catastrophic results such as the destruction of infrastructure and shutting in marginal or stripper wells, thereby losing reserves from wells that had been producing."

Mr. David F. Martineau

Vice President

North Texas Oil and Gas Association

Exploration Manager

Pitts Energy Group

Comments dated June 13, 1994 (232TX-11):

"By depending too heavily on foreign oil supplies, we are once more vulnerable to foreign policy and economic blackmail, or to an eruption of hostilities in the Middle East...The break-even clearing price for oil today is \$22.00 per barrel. Middle Eastern producers know it, and the

cartel price of oil will continue to be set by them. There are those who talk of the 'oil commodity price,' but to treat the price of oil as anything but a cartel-controlled price is a lie and a stab in the heart to our national security...Price stability and elimination of tax disincentives for oil are two important ingredients required for the U.S. to improve national security."

Mr. Lon A. McCarley

Comments dated May 10, 1994 (OIL232-12):

Mr. McCarley cites regulatory costs, environmental costs, and higher costs of production as hurting domestic oil and gas producers, making it difficult for them to compete with low-priced imported oil.

Mr. Robert E. McDougall
President
Phoenix Production Company

Comments dated May 26, 1994 (232CAL-4):

"Most of our Company's production, and approximately 75 percent of Wyoming's oil production, is low- to mid-gravity sour crude. As a result, our actual wellhead prices are substantially less than the West Texas Intermediate Benchmark Crude prices...Imports from Canada have a further impact on our price problems...During 1993, the Canadian oil and gas industry had high activity and increased oil and gas production as a result of Canadian Government-sponsored royalty holidays and sliding scale wellhead royalties. These subsidies allowed Canadian producers to sell oil in the Billings market at an approximate \$1.50 per barrel advantage over Wyoming producers...During the past ten years, Canadian oil imports into the United States have increased from approximately 200,000 barrels per day to nearly 1,000,000 barrels per day. Wyoming and Montana independent producers call for...quota or tariff relief on Canadian subsidized oil imports."

Mr. Mike McFadden
Western Area Sales Manager
Pride Petroleum Services, Inc.

Comments dated June 16, 1994 (232CAL-10):

Mr. McFadden cites a number of statistics to demonstrate the current plight of independent oil producers in California: "Since 1985, over 61 drilling and well servicing rig companies have gone out of business, either going bankrupt or selling out. Due to the decline of the oil industry,

there are now only 390 production rigs working in the state, compared to almost 600 in 1991. Likewise, the current drilling rig count in California is 35 rigs working, compared to 150 at the height of the industry...The total number of jobs lost in the California oil industry is approximately 31,000...The artificially low price of California crude, due to the ANS export ban coupled with ever-increasing environmental regulations, has caused the premature plugging of thousands of wells. The number of producing wells has declined by 23 percent over the last few years."

Mr. Mark P. Metzler

Chief Administrative Officer

Felderhoff Brothers Drilling Company, Inc.

Comments dated June 13, 1994 (232TX-12):

"As an exploration and production company, the oil price instability of the past nine years has caused us to reduce our exploration budget from over \$2,000,000.00 annually to less than \$500,000.00. The low oil price has caused abandonment of dozens of our stripper wells and has stopped the implementation of secondary recovery projects capable of producing hundreds of thousands of barrels of oil...The reduction of exploration activity which has resulted from price instability is causing major changes that cannot be easily reversed. This diminished state of the service infrastructure threatens our country's ability to increase domestic exploration and production...With continued price instability clouding business prospects, small service companies must rely solely on internally generated working capital as bank financing is difficult to obtain...Price stability coupled with restoration of tax incentives encouraging domestic exploration will put the U.S. industry in a position to attract capital from private sources and maintain the service and production infrastructure necessary to secure our country's energy needs."

Mr. James E. Mogan

Comments dated April 24, 1994 (OIL232-1):

Mr. Mogan expressed his opposition to initiating a national security investigation of imports of crude oil and refined petroleum products.

Mr. R.D. Nelson
Manager, Planning and Pricing
Mobil Sales and Supply Corporation

Comments dated May 17, 1994 (OIL232-11):

"The U.S. reserve base has matured and since 1985 and domestic production has steadily declined. This decline is inevitable, but could be delayed if the domestic industry were allowed to explore and develop the country's most promising prospects, such as in the Arctic National Wildlife Reserve (ANWR) or on the Outer Continental Shelf...The decline in production could also be slowed if there were rewards for industry to explore in less prospective areas or to continue production from marginal wells...We believe any attempt by government to intervene in the market through tariffs or fees on imported crude or petroleum products will be counterproductive and costly to the U.S. economy."

New England Fuel Institute (NEFI)

Comments dated May 11, 1994 (OIL232-3):

"NEFI is categorically opposed to any Federal response that would lead to import fees, duties or tariffs, mandatory adjustments of the level of petroleum imports, or any other initiatives that will increase the price of petroleum products for U.S. consumers..Oil import fees will increase the prices of foreign and domestic oil in the United States above the world oil price. Consumers will suffer higher energy bills. Furthermore, energy-reliant industries will need to absorb these higher costs...Oil import fees "also place a disproportionate burden on certain regions of the country. The Northeast...will be hard hit by an import fee because it must endure increased energy costs yet not benefit as a domestic producing state...The United States' use of foreign oil imports does not make the nation vulnerable to threats of supply interruption...Today, the vast majority of this nation's oil imports are supplied by secure and friendly sources, such as Mexico, Canada, the United Kingdom, Venezuela, Nigeria and Indonesia...NEFI does not object to measures to restore the domestic producing sector...NEFI is not opposed to tax code measures that, for example, allow for full deductions for actual costs. And, NEFI supports several non-tax incentives."

Petrochemical Energy Group (PEG)
(Brian Ferguson)
Coalition on Energy Taxes (COET)
(Pete Sipple)

Comments dated May 12, 1994 (OIL232-7):

"The petrochemical industry is one of the industries that is vulnerable to increases in oil prices. When the price of oil goes up, so does the price of the basic raw materials that are derived from oil and natural gas, and are used in the production of all petrochemicals...Production costs would be increased for U.S. petrochemical companies but not for foreign petrochemical producers. The foreign suppliers would be given a significant competitive advantage over U.S. companies...Without a significant increase in access to potential reserves in this country for the purposes of exploration and production, imports are bound to increase in volume, and the question is not whether, but from where, the imports come...The problem involving exploration and production of new oil reserves is not going to be solved or even addressed by a tariff on imported oil or any indirect subsidy to some or all domestic oil production and refining. What is needed is access to promising new sources of domestic supply for the purpose of exploration and production...The Department's investigation should include a thorough review of a number of alternatives to expand our security, such as those discussed in the DOE Domestic Natural Gas and Oil Initiative, other than merely pushing up oil prices through a price support program."

Mr. Jim M. Polk
President
West Central Texas Oil & Gas Association

Comments dated May 26, 1994 (232TX-22):

"When oil dipped below \$14 a barrel on the WTI posted price, over 40 percent of the producing wells on my books became unprofitable...I cannot survive on oil prices below a posted price of \$15 a barrel."

Mr. Louis W. Powers
President
Powers Petroleum Consultants, Inc.

Comments dated June 13, 1994 (232TX-2):

"Our total imports of crude and refined products are at 8.3 MMB/D in 1993, up nearly 73 percent since the low in 1983...Basically, since 1985 the Middle East price setters have orchestrated a low price for world oil in the \$13 to

\$20 per barrel range except when the security of our oil supplies was threatened by the Gulf War."

Mr. Philip L. Ryall
President
Stockdale Oil and Gas, Inc.

Comments dated June 8, 1994 (232CAL-11):

"The historically low oil price along with higher costs, especially environmental costs, has placed the upstream oil sector in a very weak position. We cannot create enough capital from our current cash flow to keep up with declining production by drilling replacement wells, let alone develop new reserves...In order to grow, we must have a higher oil price and some stability...To this end I am asking for a joint study by the Department of Commerce, Department of Energy and Industry as to how we can best save our domestic upstream industry."

The Honorable Ed Schafer
Governor of North Dakota

Comments dated June 13, 1994 (232CAL-12):

"In North Dakota today we have 2,200 people employed in the oil patch. That is a loss of 2,956 jobs in just a decade (total oil jobs in 1985 stood at 5,156) and a loss of 8,010 jobs since our high employment in that sector in 1981, when North Dakota had 10,210 jobs in the oil patch...The known remaining oil resource in the United States is large; about 350 billion barrels will remain trapped in reservoirs after conventional recovery operations end. Advanced technology recovery projects could double the amount of reserves currently estimated as producible...Too few people are being trained in" EOR (enhanced oil recovery) and ASR (advanced secondary recovery) techniques because of the current low demand for those skills."

Mr. John L. Schwager
President, Independent Oil & Gas Association of W. VA
President and C.E.O., Alamco, Inc.

Comments dated May 26, 1994 (232NY-4):

"The inability of our industry to attract capital or generate sufficient cash flow has caused the precipitous decline we have seen in domestic production levels and drilling activity...The three worst years for U.S. drilling activity since World War II have been the last 3 years...The price of oil is the culprit...Even if we wanted to raise our domestic oil production, we couldn't. The oil field service

industry is a shadow of its former self. If it weren't for their overseas operations, I wonder whether the major service companies would even exist to perform services for the domestic industry."

Mr. Bill Setzler
President
Trio Operating Company, Inc.

Comments dated May 23, 1994 (232TX-13):

"The most dramatic problem I believe we presently face is the non-replacement of our crude oil reserve base...Our drop in drilling activity...is the result of investor inability to believe that a decent rate of return on their investment is possible at this time because of the low and unstable price of crude oil...The decline in crude oil reserves "most certainly will affect the industry's ability to respond to any national security crisis which would require even a nominal increase in crude oil production."

Mr. Jack M. Shadle Jr.
Executive Director
Oklahoma Commission on Marginally Producing Oil & Gas Wells

Comments dated June 8, 1994 (232TX-15):

The Oklahoma Commission on Marginally Producing Oil and Gas Wells commissioned the University of Oklahoma's Center for Economic and Management Research (CEMR) to conduct a survey of Oklahoma oil producers and an economic analysis of the results. "According to Oklahoma Corporation Commission figures in 1993, there were 93,192 oil wells. The Survey determined that 69,823 were strippers...The average stripper well's break-even point is \$19.57 per barrel when pulling, remedial and workover-recompletion costs are included...32,000 stripper wells are now shut down...This 32,000 shut down category is 46 percent of the total stripper wells...It is 34 percent of the total oil wells...Price is why most of the 32,000 shut down wells are idle. They need \$20 oil, which allows an accumulation of capital to return wells to operation."

Mr. Scott Sheffield
Chief Executive Officer
Parker & Parsley Petroleum Company

Comments dated May 27, 1994 (232NY-14):

"Our domestic industry as a whole is in shambles and will continue to decline until action is taken to reduce our import levels through increased drilling activity and

preserving our marginal well industry...The economics to develop the properties have been largely unprofitable due to the continuing fluctuation of low oil and gas prices. This has resulted in a continuing decline in our rig count and U.S. production." Mr. Sheffield urges that imports be restricted to the 50 percent level and supports "any initiatives to preserve our marginal well industry, such as the Boren proposal."

The Society of Independent Gasoline Marketers of America (SIGMA)

Comments dated May 13, 1994 (OIL232-10):

"SIGMA opposes the IPAA petition. It urges the Department of Commerce to recommend against any presidential action that would place artificial limits on import levels...In recent years the United States has diversified its sources of supply, turning increasingly to secure, reliable sources of supply in the Western Hemisphere to satisfy its energy needs...The United States has developed a workable and effective mechanism for responding to any supply disruptions that may occur...The development of such programs as the Strategic Petroleum Reserve and the International Energy Agency Sharing Program have greatly improved the United States' ability to respond quickly to supply disruptions and other crises...Imports of petroleum products are not the cause of the higher costs facing the domestic refining industry today. The government has imposed environmental costs on the domestic refining industry, but, to date, such costs have not rendered the industry uncompetitive...The government could offer beneficial tax treatment for investments incurred by domestic refiners to comply with environmental regulations and could improve the industry's access to capital through the elimination of the 'lender liability' requirements...and perhaps through the institution of Federal loan guarantees for domestic refiners."

Mr. Harry A. Spannaus
Executive Vice President
Permian Basin Petroleum Association

Comments dated May 26, 1994 (232TX-16):

"The primary reason why the Permian Basin Drilling Rig count has decreased from over 500 rigs working in 1982 to just 114 rigs working as of last Friday, June 10, 1994, a 43 percent decrease in drilling rig availability since 1982, is because of price and price alone...To believe that the domestic crude oil explorer and producer can continue to serve the energy needs of this nation while not receiving a

fair price, tax incentives or even subsidies to encourage business is unrealistic."

Mr. J.A. Spiller

Texas Independent Producers & Royalty Owners Association

Comments dated May 26, 1994 (232TX-18):

"As a rule, I can barely break even operationally with oil prices at the \$14 level. To maintain my production through well workovers and other remedial measures, I need a \$14 to \$16 price. To put together drilling deals and drill wells for more reserves, I need prices ranging from \$18 to \$20 (depending on the prospect) in my area of operations...If I'm going to continue my contribution to the nation's domestic production, I must have economic stability. If that means a floor price system, an oil import tariff or a tax credit system tied to price, then I'm for it."

Mr. Dale W. Steffes

President

Planning and Forecasting Consultants

Comments dated May 23, 1994 (232TX-24):

Mr. Steffes recommends adopting a National Energy Security Policy (NESP) that would involve the creation of a type of import quota system, differing from the 1959 quota system in that benefits would be distributed to domestic producers, instead of domestic refiners, the right to import cheaper foreign crude oil would be earned proportionally by domestic energy producers. "While I do not agree with the other suggested forms of market intervention (tax relief, floor prices, or consumption taxes), they are much better than letting the United States become overly dependent on foreign oil supplies."

Sternfels, Mr. Urvan R.

President

National Petroleum Refiners Association (NPRA)

Comments dated May 12, 1994 (OIL232-9):

"NPRA supports government policies which enhance domestic energy production, petroleum refining capacity, and petrochemical manufacture, but which do not raise energy and feedstock costs...Those domestic industries heavily dependent on petroleum-based energy and feedstocks should not be disadvantaged relative to foreign competition...NPRA is opposed to crude oil import fees or taxes in any form. Such measures would encourage capital investment in refining and petrochemical facilities to be made outside the U.S."

with the result that the world market share of foreign producers would increase while U.S. market share declines."

Mr. Jimmy L. Talley
President
Talley & Associates, P.C.

Comments dated June 13, 1994 (232TX-19):

"In its recently released study, Federal Oil Research: A Strategy for Maximizing the Producibility of Known U.S. Oil, the Energy Department concludes that the wholesale abandonment of marginal wells may already have rendered economically inaccessible as much as 40 percent of the country's remaining oil resources...DOE contends that at \$16 per barrel, fully two-thirds of the domestic oil resource could be abandoned by 1995 and that within 15 years, the U.S. could have economic access to less than 25 percent of its remaining known oil reserves...The United States must decide whether a 50-percent import level will protect the country from a major disruption in the world marketplace. Then the country must decide on how big a domestic industry it needs...The policy we need to pursue in the United States is not to completely reduce our dependence on imports, but to maintain the industry as a viable entity to slow down our dependency and be there in case of an emergency."

Mr. Talley suggests a number of "alternative actions that should be considered" in order "to stimulate drilling activity":

- Reinstate tax credits for hard-to-produce reserves.
- Impose a fee on imported oil (both crude and refined).
- Permit immediate expensing of geological and geophysical costs.
- Establish a per barrel tax credit to encourage frontier exploration, and make changes in the tax laws to keep marginal wells producing.
- Establish a ceiling on oil imports.
- Other possible actions include import quotas, establishment of a floor price, restructuring of the depletion allowance, and tax credits for new wells drilled (20 percent) and for workover and/or secondary recovery wells (10 percent).

Mr. W.M. Thacker Jr.
Vice President
Texas Mid-Continent Oil & Gas Association

Comments dated June 13, 1994 (232TX-14):

"In the past, investors, both in and out of our industry, have been available on a reasonable basis when the price of

oil was \$20.00 or more, and there was some appearance of stability as to prices...As investors in this country, including the major oil and gas companies, expend substantial sums in exploration efforts in foreign countries such as Russia, it will continue to reduce the exploration efforts in this country and further reduce domestic reserves and cause increased imports...Most independent oil and gas operators would be considered small businesses; and such businesses, not only in our industry but throughout the country, are being devastated by unwise, unneeded, and unreasonable rules and regulations that do not produce economic results to the public."

Mr. James Townsend
New England Fuel Institute

Comments dated May 23, 1994 (232NY-11):

"Oil import fees designed to protect the domestic oil and gas industry would severely strain the U.S. economy...On a regional level, import fees will unfairly impact the northeast, where consumers are most oil-dependent for heat, power generation and process use...Import fees will cause an increase in manufacturing costs and impair the ability of U.S. companies to export manufactured products, an especially difficult problem for energy-intensive industries such as chemicals, agriculture, steel, wood and paper products, mining and plastics...U.S. oil imports do not make the nation vulnerable...Today, the stability and diversity of U.S. suppliers, including Canada, the United Kingdom, Mexico, Venezuela and Nigeria, provide many reliable sources of product without any threat of interruption. Moreover, our experience of the 1970s and '80s tell us that oil cannot be effectively denied to the U.S. for political purposes; the world market is far too complex and interdependent...NEFI does not object to measures designed to improve opportunities for domestic producers...NEFI would support tax code incentives, for example, as well as the opening of frontier areas to production, such as the ANWR and the OCS."

Mr. Gary Westfall
Sales Manager
Dowell Schlumberger

Comments dated May 26, 1994 (232NY-7):

Mr. Westfall cites the lack of stability in oil prices over the past decade as the major reason for the current state of the domestic oil industry.

Mr. Rex H. White Jr.

President

Texas Independent Producers and Royalty Owner Association

Comments dated May 23, 1994 (232TX-17):

"Price instability...is contributing to dismemberment of the basic infrastructure of the U.S. independent petroleum producing industry...Once the domestic producing industry loses the ability to find capital, knowledgeable personnel, and equipment to explore for and produce domestic reserves, this infrastructure cannot be easily or quickly regained, leaving the nation vulnerable to the policies of foreign importers." Mr. White suggests a number of "options that could be taken to alleviate some of the burden on domestic producers and to allow them to compete with foreign sources of energy":

- Require importers of foreign crude oil to donate a certain portion of their imports to the Strategic Petroleum Reserve.
- Place a \$.07 per gallon environmental fee on imported gasoline to help offset environmental costs incurred by domestic refiners.
- Create tax incentives to encourage exploration for new reserves or the reactivation of old wells.
- Eliminate the \$.05 cent per barrel Federal excise tax on-shore domestic production.
- Take action to stabilize oil prices (e.g., oil import fee).

Mr. Steven R. Williams

President

Petroleum Development Corporation

Comments dated May 26, 1994 (232NY-8):

"Our ability to attract investment capital is directly related to our ability to generate attractive financial returns for potential investors. Even though our programs have focused on natural gas development for environmental and other reasons, it is clear that bargain basement oil imports have had an adverse impact on the performance of our drilling programs, and threaten our future ability to attract additional risk capital for our development activities...Perhaps my greatest fear, given the low level of drilling activity, is that the service companies which we rely on to develop the reserves in our area will find it economically impossible to continue on with their operations. While we may squeak by operating wells on a shoestring, once they no longer find business viable, and shut down their operations, we will have no easy or economic

way to return to a reasonable level of activity when and if prices do recover."

Mr. Roy W. Willis

Vice President for Government Relations
Independent Petroleum Association of America

Comments dated June 16, 1994 (232CAL-1):

Mr. Willis disagreed with the argument that the problems facing the U.S. domestic oil producers are the result of geological factors that have nothing to do with government policies. He asserted that the U.S. still has a vast resource base in jackrabbit fields (i.e., fields with a limited amount of potential resources of only 2 million or 3 million recoverable barrels, instead of the normal 10 million to 20 million barrels of recoverable oil). Mr. Willis also challenged the argument that the risk of a major disruption in oil supplies has decreased in recent years because the U.S. has developed more diverse foreign sources of oil (e.g., Canada, Mexico, and the North Sea). He asserted that recent changes in production in these areas indicates that their production is likely to decline. Mr. Willis recommended that Commerce consider a remedy that "not only sustains current production, but also gives the industry the wherewithal to continue to search for and find new oil and natural gas and to sustain that very infrastructure (i.e., related service and supply industries) that we need in order to do it." Mr. Willis discussed the effectiveness of production-based tax credits as a remedy. He argued that, "to be useful to producers, particularly at times of low prices when producers are not likely to have taxable income...the tax credits then must become some way of substituting for cash flow. To do that, they have to be transferrable...They have to be easily monetarized so they can become a source of income with which producers can maintain existing production and continue to search for new oil and natural gas." He recommended that the tax credits be counted against the alternative minimum income tax.

Mr. Roy W. Willis

Vice President for Government Relations
Independent Petroleum Association of America

Comments dated May 12, 1994 (232NY-1):

"The primary reasons given in 1989 for finding a threatened impairment of U.S. national security are still valid, declining domestic production, rising oil imports, growing Free World dependence on potentially insecure sources of supply, vulnerability to a major supply disruption, and the need to maintain U.S. access to sufficient supplies of

petroleum essential to U.S. economic security, foreign policy flexibility, and defense preparedness...Since the 1970's, we have diversified suppliers of crude oil imports into the United States, but crude oil production already has or is expected to begin to decline in many of our non-OPEC suppliers within this decade." Mr. Willis, citing a 1991 report by the Office of Technology Assessment entitled U.S. Oil Import Vulnerability: The Technical Replacement Capability, argues that "the ability of our economy to adjust to oil import disruptions has actually become weaker over the last decade...Among the recommendations OTA made to reduce our nation's vulnerability to oil import disruptions was to preserve the domestic oil-producing industry..."Unfortunately, our weakened domestic oil industry cannot be regarded as a ready source of oil to deal with supply disruptions...After nearly a decade of relatively low prices, marked with increased price volatility, American crude oil production continues to decline, and current exploration efforts are not sufficient to slow the depletion of domestic reserves, much less expand them...The United States has just under 600,000 operating oil wells and a per-well production average of about 12 barrels per day. Of total oil wells, nearly 78 percent of them are so-called marginal wells, with an average production per well in 1991 of 2.2 barrels per day...If we are to maintain this production and, equally important, bring new reserves on line, the Clinton Administration and Congress must provide measures that improve the economics of investment in marginal wells and in new drilling...In our petition we did not specify a particular remedy...We, nonetheless, urge the Administration to look at all options, including import fees, indirect actions (e.g., tax incentives), and "some combination of direct and indirect action...For instance, small increases in existing fees on imported crude oil and refined petroleum products can be made without anti-competitive impacts and those revenues used to fund a wide array of domestic energy initiatives."

Mr. Paul J. Zecchi

President

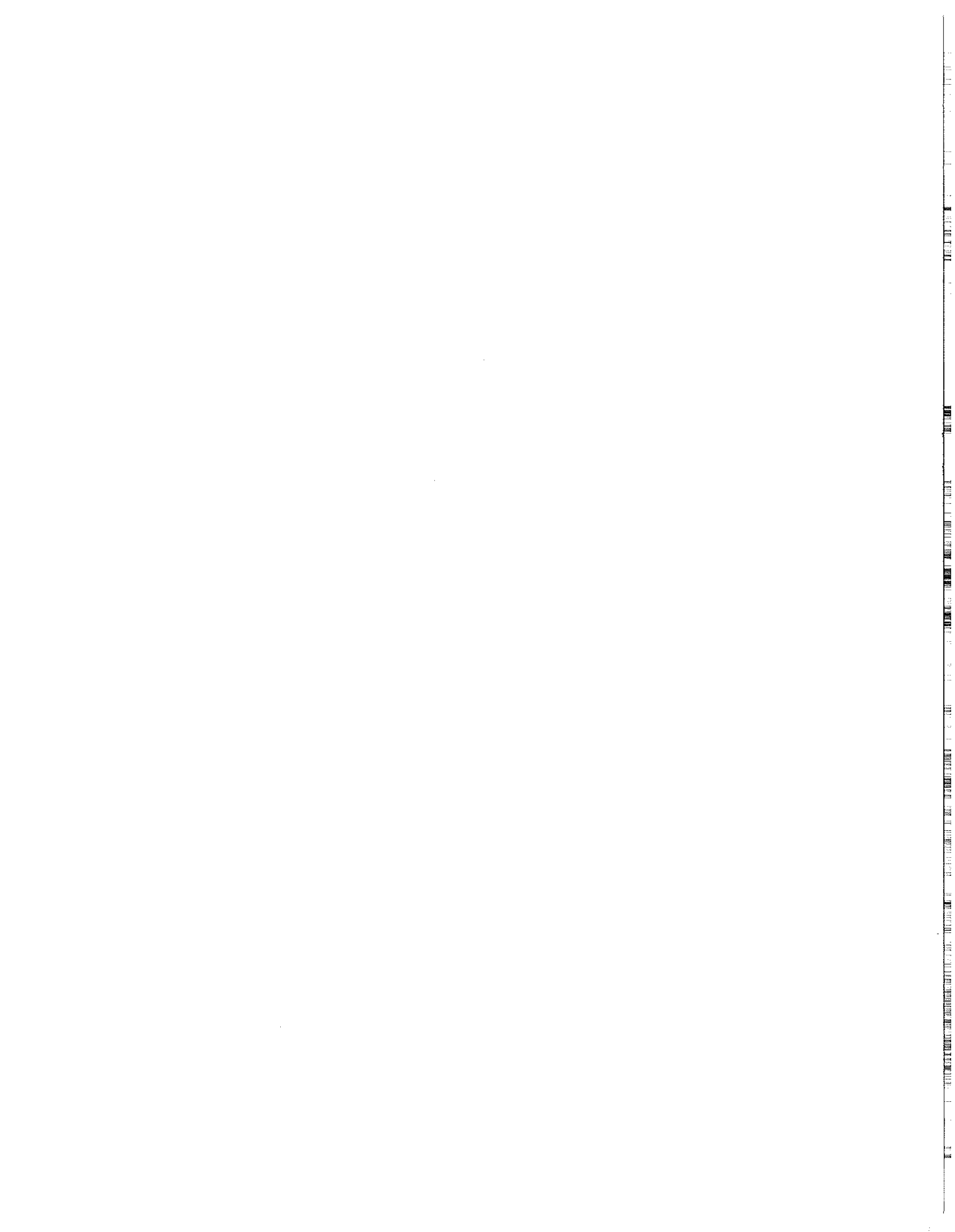
Independent Petroleum Association of Mountain States (IPAMS)

Comments date June 11, 1994 (232TX-23):

"Rocky Mountain production has been dramatically affected by falling crude prices. From January 1993 to January 1994, monthly production has declined 2,392,324 barrels or 8.3 percent...At today's prices, many vital reserves are uneconomic; and there is no incentive to drill for new reserves...From 1988 to 1992, approximately 600 service companies left the state of Wyoming. This shows further the destruction of the industry's infrastructure in the Rocky

Mountain region...American refining capacity is expected to decline significantly in the next few years primarily because of the Clean Air Act (CAA)...Our industry stands a good chance of losing up to 2 million BPD of refining capacity between now and the end of the century due to the requirements of the CAA. Most of this loss will occur from the smaller refineries and could have a significant impact on the independent producer particularly in the Rocky Mountain and Mid-Continent areas..." IPAMS makes the following recommendations:

- Establish a floor price of \$20 per barrel for crude oil.
- Establish an import fee, or variable rate import fee on imported crude oil.
- Establish a limit on total imports of foreign crude oil at 50 percent of total consumption.
- Require all tankers delivering foreign crude oil to U.S. ports to be registered and operated as U.S. flagships for environmental and national security reasons.
- Allow tax deductions for geological and geophysical costs.
- Eliminate the percentage depletion limitation against net income.
- Establish a production tax credit against Alternative Minimum Tax that is applicable to all drilling costs.
- Require that the costs of implementing and complying with environmental regulations be considered before such regulations are put in place.
- Increase access to public lands for oil and gas development.
- Increase funding to the fluid mineral programs of the Bureau of Land Management and Minerals Management Service.
- Revise Federal oil and gas lease terms to permit leases to be shut-in for more than 60 days.
- Develop royalty incentives for Federal leases.



U.S. DEPARTMENT OF COMMERCE
BUREAU OF EXPORT ADMINISTRATION
OFFICE OF STRATEGIC INDUSTRIES AND ECONOMIC SECURITY
STRATEGIC ANALYSIS DIVISION
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Italics indicate forthcoming studies

| PUBLICATION TITLE | GPO ORDER # | PRICE |
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| <i>Shipbuilding and Repair - February 2001</i> | | |
| <i>National Security Assessment of the Air Delivery (Parachute) Industry - Spring 2001</i> | | |
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