Union Pacific Corporation

1977 Annual Report





Union Pacific Corporation

Annual Report for 1977



| INANCIAL HIGHLIGHTS Collar Amounts in Millions, Except Per Share Amounts) TOTAL YEAR | 1977 | 1976 | % Increase |
|--|-----------|-------------------------|---------------|
| Revenues ^(a) | \$2,554.3 | \$2,065.0 | 24 |
| Income Before Federal Income Taxes | \$ 338.0 | \$ 247.2 | 37 |
| Income Before Extraordinary Item | \$ 221.9 | \$ 187.7 ^(b) | 18 |
| Net Income | \$ 221.9 | \$ 195.2 | 14 |
| Operating Cash Flow | \$ 449.5 | \$ 369.1 ^(b) | 22 |
| Capital Investments ^[c] | \$ 418.1 | \$ 393.3 | 6 |
| AT DECEMBER 31 | | | |
| Short- and Long-Term Borrowings | \$ 968.9 | \$ 878.9 | 10 |
| Stockholders' Equity | \$2,117.5 | \$1,967.5 | 8 |
| Working Capital | \$ 130.6 | \$ 87.1 | 50 |
| MEASUREMENTS | | | |
| Per Share of Common Stock: | | | |
| Primary Earnings: | | | |
| Income Before Extraordinary Item | \$4.68 | \$4.02 ^(b) | 16 |
| Net Income | \$4.68 | \$4.18 | 12 |
| Fully Diluted Earnings: | | | |
| Income Before Extraordinary Item | \$4.60 | \$3.91 ^(b) | 18 |
| Net Income | | \$4.07 | 13 |
| Dividends Declared | | \$1.475 | 20 |
| Ratios: | | | |
| Return on Average Stockholders' Equity | 10.9% | 9.9% ^(b) | |
| Borrowings to Total Capital Employed | | 27.0% | |

(a) Effective with this report, royalties, equity and other income previously reported as other income are included in revenues (see page 29).

(b) Income before extraordinary item excludes a \$7.5 million extraordinary credit to income representing the elimination of an excess Amtrak reserve balance. Operating cash flow also excludes the credit.

(c) Includes advances to and capital expenditures of unconsolidated affiliated companies (1977-\$53.9 million; 1976-\$15.0 million) in addition to consolidated capital expenditures.

THE BUSINESS OF UNION PACIFIC

Union Pacific Corporation is comprised of four operating companies engaged in railroad, energy and other natural resource operations vital to America's economy.

Union Pacific Railroad Company operates a 9,700-mile transportation system which hauls a diversity of minerals, farm products, consumer and industrial goods and intermodal traffic into and out of 13 western states.

Champlin Petroleum Company is engaged in exploration, development and production of crude oil and natural gas in many areas of North America; and in refining and marketing petroleum products. Rocky Mountain Energy Company is developing Union Pacific's reserves of coal, uranium and trona in the Rocky Mountain region, as well as conducting an extensive mineral exploration program. Upland Industries Corporation is the industrial development agent for the Union Pacific Railroad and is responsible for Union Pacific's land bank of prime industrial and commercial sites and other properties held for investment.

OPPOSITE PAGE— Champlin Petroleum's refinery at Corpus Christi, Texas was further expanded in 1977 to bring its capacity to 155,000 barrels of oil a day.

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Union Pacific Corporation

To Our Stockholders:



James H. Evans William S. Cook Elbridge T. Gerry

RARSH

We are pleased to report that in 1977 Union Pacific moved significantly forward in achieving its corporate goals of serving the nation by maintaining a premier position in the railroad industry while continuing to accelerate the development of its oil, gas, coal, uranium, natural soda ash and land resources. The details relating to these achievements are covered in the succeeding pages of this report.

One measurement of this progress is that the Corporation attained new highs in earnings and revenues in 1977. Net income was \$221.9 million, a gain of \$34.2 million or 18 percent over 1976's income, which was \$187.7 million before an extraordinary credit of \$7.5 million related to Amtrak. Earnings per share in 1977 were \$4.68 compared with \$4.02 in 1976 before the extraordinary credit. Revenues in 1977 were \$2.55 billion, up 24 percent or \$489 million over the \$2.06 billion in 1976.

Union Pacific's 1977 income of \$338.0 million before Federal income taxes was 37 percent ahead of the \$247.2 million reported a year earlier; the Railroad's was up 28 percent, while Champlin's increased by 44 percent. The 37-percent gain in the Corporation's income before Federal income taxes is not fully reflected in the 18-percent earnings improvement because the Corporation's provision for Federal income taxes was nearly double the 1976 level. The higher effective tax rate is due to increased taxable earnings and a lower level of investment tax credits than in 1976 when the Corpus Christi refinery expansion was completed.

Return on stockholders' equity reached 10.9 percent, marking the first time in the Corporation's history that this rate exceeded 10 percent.

Nearly all segments of Union Pacific's railroad, energy and other natural resource businesses registered significant gains in 1977. Union Pacific Railroad earned \$116.3 million, an increase of 18 percent before the extraordinary credit in 1976; Champlin Petroleum's net income was \$84.4 million, up 11 percent; and Rocky Mountain Energy had net income of \$23.2 million, an increase of 43 percent. Upland Industries' net income was \$4.2 million, a slight decrease from the \$4.5 million recorded in 1976. These earnings are exclusive of corporate expenses, which are not allocated.

In the light of the Corporation's strong earnings performance, your Board of Directors on November 30 increased the quarterly dividend 18 percent, from $421/_2$ to 50 cents a share.

Meeting America's Energy Needs—We regret the delay in the enactment of a comprehensive national energy policy, yet we fully endorse cautious and deliberate consideration of legislation with such farreaching consequences, some of which could be counter-productive.

There are large untapped energy resources in this nation. The U.S. Geological Survey has estimated that 600-trillion cubic feet of recoverable natural gas (30 years' supply) are locked away in the so-called "tight-sand formations" of Wyoming, Colorado and Utah. But the cost of production precludes their development until realistic prices for new natural gas prevail. In the face of such evidence, we once again call for the de-regulation of new natural gas.

We also urge the elimination of the uncertainty which arises out of existing controls on oil prices. A clearly defined timetable of phasing out these controls would encourage more intensive domestic exploration as well as expand development of known petroleum reserves.

Reducing the nation's dependence on foreign oil can best be accomplished by increasing domestic production of energy resources while maintaining a balanced commitment to preservation of other resources. The time for confrontation over air, water and land use is past. We urge instead that industry, government and environmental groups join in a dialogue which will allow the country to move ahead.

The Administration's goal of raising annual coal output to 1.2 billion tons by 1985 is highly desirable. To come even close to this target, the Federal Government should expedite environmental reviews and develop a sound coal-leasing policy. It should then move promptly in issuing leases and mining permits to allow careful development of the large reserves of low-sulfur western coal.

With the growing support of thoughtful publicinterest groups and with the creation of a more certain business climate by Congress, we are confident that the enormous energy resources of the nation, including those of Union Pacific, will be developed in harmony with the legitimate environmental concerns of the American people.

Rail Developments—Several developments in December 1977 make it foreseeable that significant rail system restructurings could occur in the near future. First, the Burlington Northern reached a definitive agreement with the Frisco to merge their properties, subject to approval by the Interstate Commerce Commission. Second, the Southern Pacific and Seaboard Coast Line/L&N announced that they were studying the feasibility of merging to create a transcontinental system which would reach from the Pacific Northwest to Florida. Third, the Milwaukee Road filed a Petition for Reorganization under the Federal Bankruptcy Act, thus following another midwestern road, the Rock Island, which took that step in March 1975.

The political response to the Milwaukee's bankruptcy was prompt. In January 1978, the Secretary of Transportation held hearings with the Midwest bankrupts, marginal and profitable roads, stressing his belief that the region's problems stem from substantial rail overcapacity and the need for heavy rehabilitation of major segments. His objective is to preserve the viable elements of the Midwest systems and not merely to preserve the bankrupt or marginal carriers as ongoing corporations. We strongly support the Secretary's position.

Your management is closely monitoring this rapidly unfolding situation, since it could have longrange consequences both to the industry and to our Railroad. Our efforts are to ensure that whatever emerges will not disadvantage Union Pacific.

Frank E. Barnett—On August 1, Frank E. Barnett retired as Chairman of the Board and Chief Executive Officer after 26 years of distinguished service to Union Pacific Railroad Company and to Union Pacific Corporation. The Board of Directors and management express to him their deep appreciation for his unique contribution to the growth and success of the Corporation during its formative years. We are fortunate that Mr. Barnett continues to serve Union Pacific as a Director and a consultant to management, thus affording us his wise judgment and broad insight.

New Director Elected—John B. Fery, 47, President and Chief Executive Officer of Boise Cascade Corporation, was elected to the Union Pacific Board of Directors on November 30. With the election of Mr. Fery, the Board was increased from 20 to 21 members.

Management Changes—G. Henry M. Schuler, 43, was elected a Vice President of the Corporation, headquartered in the Washington, D.C., Governmental Affairs Office. Prior to January 1, 1978, Mr. Schuler was Vice President-Governmental Relations and Public Affairs of Champlin Petroleum.

Charles N. Olsen, 52, Secretary of Union Pacific Corporation, was elected President of the Union Pacific Foundation effective May 1, succeeding Arthur Z. Gray, who retired after more than 15 years of service as President of the Foundation. Mr. Olsen remains Secretary of both the Corporation and Union Pacific Railroad Company.

Earl Baldridge—We note with deep sorrow the death of Earl Baldridge on September 23, 1977. A retired Director of Union Pacific Corporation and past Chairman of Champlin's Executive Committee, Mr. Baldridge brought to the Corporation the practical wisdom and experience of a long and successful career in the petroleum industry. His dedicated counsel was of enormous value to management and to his fellow Directors.

Outlook—We continue to be troubled by the uncertainties associated with pending energy and other tax legislation and by the subtle anti-business sentiment that appears to pervade some departments and agencies of the Federal Government. Nonetheless, we concur in the general view that the nation's economy will sustain a moderate rate of growth through most of 1978.

At Union Pacific, the Railroad expects to see a strong traffic pattern, particularly in coal, soda ash, autos and intermodal freight, and should have another good year if there is a timely and responsible settlement of the national rail labor negotiations. Champlin's exploration and production program, as well as its expanded refinery throughput, should result in continued growth, although the present cost/ price squeeze for refined products will temporarily depress refinery margins. Rocky Mountain Energy's development of coal, uranium and trona will help meet the demand for these mineral resources by public utilities and industry and will continue to contribute favorably to our earnings.

On balance, we expect a good earnings performance in 1978 and we remain very optimistic about the Corporation's long-range prospects.

We wish to express our appreciation to all those who contributed so much to the ongoing progress and success of the Corporation. On behalf of the Board of Directors, we thank our stockholders, customers, dealers and distributors for their loyal support and extend our gratitude to the 29,000 Union Pacific people for helping merit this support.

e Id.

James H. Evans CHAIRMAN OF THE BOARD OF DIRECTORS

William S. Cook

Elbridge T. Gerry CHAIRMAN OF THE EXECUTIVE COMMITTEE

New York, N.Y., February 7, 1978

Union Pacific Railroad Company:

Serving the Rapidly Expanding West





OPPOSITE PAGE—Union Pacific Van train hauls trailers and containers on flat cars westbound through the rugged Rainbow Canyon near Callente, Nevada.

BOTTOM—Union Pacific's new 32-track automated classification yard, left, at Hinkle, Oregon will significantly improve traffic flow in Pacific Northwest. At RIGHT is control tower, where computers are used to increase speed and efficiency in classifying cars for train make-up. Union Pacific Railroad continued to strengthen its position as one of the most efficient and profitable railroads in the industry by carrying out an aggressive marketing effort and an extensive capital expenditure program. The Railroad achieved all-time highs in nearly every major financial and operating category. It increased its average haul to 659 miles in 1977 from an average of 633 miles in 1976. It also made significant progress in a number of major capital projects and continued to expand the scope of its computer network. During the last six years, from 1972 through 1977, the Railroad made more than \$1 billion in capital investments. In the same period it spent \$1.5 billion in maintenance programs to keep its fleet, track and roadbed at the highest standards in the industry.

During 1977, the Railroad's earnings from normal operations surpassed \$100 million for the first time, reaching \$116.3 million. This represented a gain of 18 percent over 1976's earnings of \$98.7 million before the extraordinary credit of \$7.5 million related to Amtrak.

Consolidated revenues also reached a new high of \$1.3 billion, up 12.4 percent over the 1976 figure of \$1.2 billion.

Here are some of the Railroad's other major achievements in 1977:

• Virtual completion of the automated classification yard at Hinkle, Oregon;

• Installation of 66-miles of Centralized-Traffic-Control from Crates to Troutdale, Oregon;

• Commencement of unit coal train service to the \$1.1 billion Jeffrey Energy Center near Topeka, Kansas;

• Start-up of raw material shipments for the NASA Space Shuttle Program.

New Highs in Freight Traffic—The Railroad increased its revenue ton-miles to a record 60.9 billion, compared with 56.8 billion in 1976.

Union Pacific's carloadings advanced 4 percent over the 1976 figure. The Railroad achieved its most significant gains in intermodal traffic, natural soda ash, coal and automobiles. The farm products group, particularly grain, which has been depressed by low prices for nearly two years, was the only major commodity with a significant decline. However, recent purchases of wheat and corn in the world market and increasing West Coast exports are expected to improve Union Pacific's grain traffic in 1978.

The tonnage contribution and percentage of change in each major commodity are shown in the Commodities Chart on page 7.

The Railroad improved its operating ratio (railway operating expenses as a percentage of revenues) to 74.65, compared with 75.32 in 1976.

Inflation continued to affect most segments of Union Pacfic's operations despite the Railroad's stringent cost reduction and conservation programs. Total operating expenses rose \$104million, with the most significant increases in employee compensation and benefits, which were up \$46 million over 1976. Material costs were also up sharply from 1976.

The average price paid for diesel fuel in 1977 —35 cents per gallon—represented an increase of 11 percent over 1976. This is one of the great est areas of increased operating costs.

To help offset the ever-rising costs of labor and materials, the nation's railroads were permitted by the Interstate Commerce Commission to implement a 5-percent general freight-rate increase, effective November 30. The yield to Union Pacific is slightly more than 4 percent.





Advances in Marketing—Union Pacific's Traffic staff capitalized on the Railroad's strategically advantageous location, swift traffic flow and reliability to capture new business.

The Railroad has been particularly successful in attracting ever-higher levels of intermodal traffic. In 1977, for example, Union Pacific intermodal traffic increased 26 percent. At the heart of this expansion are the Railroad's highly successful Van trains, which offer reliable 50-hour service to and from Chicago and a number of West Coast cities.

Union Pacific led the industry in 1977 by achieving an average of 384 car-miles per day per intermodal flat car. To accommodate its increase in intermodal traffic, the Railroad is constructing a fourth TOFC (trailer-on-flat car) track at the Los Angeles terminal. During the last five years, Union Pacific has stepped up its intermodal carloadings by nearly 63 percent.

The Railroad's central location in the expanding mineral and energy-resource regions of the West has made it an important carrier of lowsulfur coal and natural soda ash. In 1977, these two commodities accounted for nearly 29 percent of the total tonnage hauled by the Railroad compared with 25 percent in 1976. From 1970 through 1977, the company more than trebled its coal tonnage and increased its soda ash tonnage by almost 150 percent.

Union Pacific hauled 20-million tons of coal in 1977 from southern Wyoming, Utah and Colorado to utilities and industrial customers in 16 states, ranging from California in the West to Indiana in the East. This compares with 17.3 million tons in 1976. Much of this coal is hauled by unit coal trains. In 1977, the Railroad increased its total unit coal trains 29 percent from 28 to 36 trains a week.

At mid-year Union Pacific and Burlington Northern began delivering 11,000-ton shipments of low-sulfur coal from the Powder River Basin in northeastern Wyoming to the new \$1.1 billion Jeffrey Energy Center near Topeka, Kansas. These unit trains, which average 110 cars, travel a total distance of 710 miles, of which 435 miles are over Union Pacific tracks. This traffic is expected to increase from approximately onemillion tons in 1977 to four-million tons in 1979.

Union Pacific is a critical link in NASA's Space Shuttle Program. The Railroad started moving raw materials in 1977 and will soon transport rocket booster motors weighing 1.4 million pounds apiece on specially designed flat cars from Corinne, Utah to Kansas City, Missouri on their way to the Kennedy Space Center in Florida. This program is expected to generate traffic revenue of \$44 million through 1989.

The Railroad's marketing area is considerably greater than its immediate operating territory of 13 states. By use of run-through trains, which operate over the lines of more than one railroad without changing locomotives, Union Pacific provides swift, dependable delivery of many commodities to customers in nearly every section of the nation.

Union Pacific run-through trains connected with 10 railroads in 1977, completing more than 21,500 separate trips throughout the country.

Capital Improvements Remain High—Union Pacific sustained its high level of efficiency and service by investing more than \$204 million in new facilities, new and improved equipment and right-of-way.

The Railroad virtually completed its \$20-million automated classification yard at Hinkle,



BOTTOM LEFT—Unit coal trains averaging 110 cars each deliver 11,000-ton shipments from Wyoming to the Jeffrey Energy Center near Topeka, Kansas.



Oregon and anticipates commencing operations early in the first quarter of 1978. This yard, with 32 tracks capable of handling nearly 1,200 cars at one time, is the hub for traffic throughout the important Northwestern District, where 40 percent of the Railroad's revenue traffic originates or terminates. Hinkle will also be an important conduit of freight to Union Pacific's growing link with Canada. Hinkle will accommodate future traffic growth in the region, reduce terminal delays, provide increased locomotive and car utilization and improve schedule reliability. To meet future needs, the new yard has space for 38 more tracks.

To maximize the efficiency of Hinkle, Union Pacific installed a \$2.3 million, 66-mile section of centralized-traffic-control (CTC) from Crates to Troutdale, Oregon. This completes CTC westward on single track from the new yard to the outskirts of Portland.

Centralized-traffic-control is an electronic switching and signaling system which increases single-line capacity by 80 percent and permits trains to operate in either direction on each of the double tracks on the main line. CTC allows a train dispatcher to visualize the location of every train in his area on lighted panels. Centralized-traffic-control improves scheduling and control of train movements.

The Railroad also finished the first phase of its major \$23-million program to install CTC on 210 miles of double-track main line between North Platte, Nebraska and Archer, Wyoming. By the end of 1977, the Railroad had 2,201 miles of CTC on single-track line and 307 miles on double-track main line.

Union Pacific constructed a 6.5 mile, \$1.9 million line from Nampa to Fox, Idaho, thereby pro-

Soda Ash, Other Chemicals and Allied Products

Lumber, Wood Products, Furniture and Fixtures

viding more efficient, double-track service through the Nampa Yard. The Railroad also began work on a \$2.3 million line change near Kemmerer, Wyoming, in the center of the coal region. This line change, scheduled for operation in October 1978, will save fuel, time and rail wear by straightening curves over 1.5 miles. Key Repair Facilities Progress-For the past five years, the Railroad has been centralizing its repair functions to simplify control procedures, reduce investment in inventory and optimize the use of each facility. Construction progressed on Union Pacific's \$6.6 million, semi-automated wheel shop at Pocatello, Idaho. This shop will handle repairs on all freight car wheels for the system.

The Railroad also completed more than half of Phase IV of a five-phase program to modernize the Omaha shops. The entire project is estimated to cost \$17 million and is scheduled to be finished in 1979.

Equipment Purchases Increased—Union Pacific increased its expenditures for new transportation equipment 11 percent to \$137.1 million in 1977 from \$123.9 million in 1976.

The Railroad acquired 90 new 3,000-HP locomotives for \$51.8 million compared with 73 similar units for \$35.3 million in 1976. This is the third largest number of locomotives purchased by Union Pacific in 10 years. The Railroad also acquired or constructed 2,087 freight train cars and 444 auto racks at a total cost of \$69 million.

Union Pacific spent \$16.3 million for workand-other equipment in 1977.

In December, Union Pacific's Portland, Oregon shops completed a cost-saving program of constructing 550 "bathtub" gondola cars which are being used for hauling coal. Because the

| OPPOSITE PAGE, RIGHT - |
|-------------------------------|
| Union Pacific's Van trains |
| cut delivery time for |
| trailers and containers at |
| Los Angeles by avoiding |
| yard switching. Trains |
| move directly from the |
| main line into the inter- |
| modal handling area for |
| unloading. |

Coal

Farm Products

Nonmetallic Ores

Miscellaneous

Iron and Metallic Ores

Primary Metal Products Intermodal Trailer Traffic

Motor Vehicles and Parts

Food and Kindred Products

Stone, Clay and Glass Products

Pulp, Paper and Allied Products

Petroleum Products and Coke

Freight Traffic by Commodities in 1977

Percent
Increase
Tons
Carried
From 197

20.360.122

11.967.741

10,892,989

9,791,493

7,881,989

7.166.057

4,839,865 3,765,247

2,340,990

2.332.747

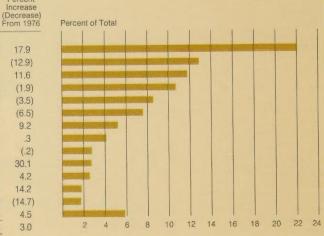
2,186,701

1,721,414

1.676.060

5,427,960

92,351,375



7

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BOTTOM LEFT—Unit coal trains averaging 110 cars each deliver 11,000-ton shipments from Wyoming to the Jeffrey Energy Center near Topeka, Kansas.



Railroad (concluded)

bathtub car has a parabolic-bottom design and uses thinner, lighter steel with higher tensile strength, it can carry 5.5 more tons of coal than the conventional 100-ton hopper car.

Maintenance Programs Reach New Highs— Union Pacific's expenditures for both maintenance of equipment and right-of-way reached new highs in 1977. The Railroad spent \$159million on equipment, up 10 percent over the \$144 million spent in 1976. Expenditures to maintain the right-of-way reached \$174 million, an increase of more than 13 percent over the \$154 million expended in 1976.

The Railroad installed 440 miles of rail. This included 302 miles of continuous-welded rail, which raised Union Pacific's total of continuous-welded rail on the main line to 2,187 miles at the end of the year.

Union Pacific placed 933,498 crossties in 1977, including 95,945 crossties for new spur lines and extensions to existing lines and yards. This compares with a total of 1,041,337 crossties in 1976. The Railroad also resurfaced and reballasted 1,396 miles of track.

Computer Operations Expand—In late 1977, the Railroad added two new IBM computers at a total cost of \$7.3 million to respond to the mounting volume of traffic on the **COIN II** (Complete **O**perating **IN**formation) system and to improve train operations, car distribution and locomotive maintenance.

Union Pacific installed its *Terminal Information System* at Salt Lake City, which speeds carhandling within and train-handling through the terminal. This mini-computer system, a Railroad innovation, monitors every car received at a rail terminal. Union Pacific has scheduled installation of TIS at every major yard in the system. The Railroad will test its *Crew Management System* in 1978. This innovation will permit selection of train crews by computer.

To speed up collection of freight revenues through automatic preparation of waybills, the Railroad inaugurated its *Agency Accounting System* at Omaha and Los Angeles. The system uses mini-computers for local waybill preparation and interconnects by microwave communications to the central computer at Omaha. By the end of 1978, mini-computers for the Agency Accounting System will be installed at seven locations, including Kansas City, Denver, Pocatello, Salt Lake City and Portland, Oregon.

Union Pacific expanded its *computer-to-computer* waybill data exchange with other rail-roads. The Railroad is now exchanging waybill data via microwave with the Southern Pacific Transportation Company and Missouri Pacific Corporation, and will soon expand this program to include the Burlington Northern.

To protect its extensive computer network from the damaging consequences of an electrical failure or fluctuations, Union Pacific placed in service at Omaha an *uninterruptible power backup* consisting of a solid-state battery system. This will protect its computers from power failures as brief as 1/1000 of a second.

Organizational Change—In August, C. Barry Schaefer, 39, was promoted from Vice President and Western General Counsel to Vice President-Law. Also in August, Thomas B. Graves, Jr., 45, was appointed to the newly created position of Vice President-Finance and Administration. Robert L. Godfrey, 36, formerly Director-Market Development, was named to succeed Mr. Graves as Assistant Vice President-Marketing.



Solid rocket booster motors manufactured in Utah by Thiokol Corporation's Wasatch Division will be hauled by Union Pacific to Kansas City enroute to the Kennedy Space Center in Florida for use in launching NASA's Space Shuttles. Statements (EIS), which are required for obtaining mine permits.

Rocky Mountain Energy has cooperated extensively with the Federal Bureau of Land Management to expedite preparation of these impact statements, and Union Pacific and RME management have testified before the appropriate Congressional committees and Governmental agencies, urging prompt action in the development of vitally needed coal.

The Department of the Interior has scheduled issuance of its first EIS in August 1978 and it will cover southwestern Wyoming. If this EIS is issued by that date, RME should be able to bring the Black Butte mine into operation on schedule. Black Butte already has the required Federal coal leases, sales contracts and the State mining permit; only the Federal mining permit is needed for start-up.

Trona Output Rises—At Green River, Wyoming, Rocky Mountain Energy is actively participating in the development of the world's largest trona (natural soda ash) deposit, of which Union Pacific owns approximately one-half. This multi-billion-ton deposit is the source of 96 percent of all the natural soda ash now being produced in the United States.

Since 1970, natural soda ash's share of the total soda ash market in the United States more than doubled because of the environmental and

economic advantages of the natural product.

Natural soda ash is the ninth most widely used chemical in U.S. industry. It is a significant ingredient in the manufacture of glass, detergents, pharmaceuticals and baking soda.

The Green River deposit is currently being mined and processed by four companies: Stauffer Chemical Company of Wyoming, in which RME has a 49-percent interest; FMC Corporation; Allied Chemical Corporation; and Texasgulf Inc.

In 1977, Stauffer expanded its soda ash production from 1.35 million to 1.44 million tons.

The total soda ash output of the four companies was 5.8 million tons in 1977, a gain of 14 percent over the 5.1 million tons in 1976. All of this was hauled by Union Pacific Railroad.

During 1977, RME's royalty and equity income from trona increased 27 percent.

Organizational Change—Larry G. Weber, 44, was appointed, effective February 1, 1978, to the newly created position of Vice President-Employee Relations. Mr. Weber was previously with FMC Corporation in Chicago.

Control technicians oversee selective ore-mining operations at Bear Creek uranium mine (NEAR RIGHT). In its first few months, the energyefficient Bear Creek mill (FAR RIGHT) has continued to operate above its design capacity of 1,000 tons of uranium ore a day.





Upland Industries Corporation:

Attracting New Business to Rail-Served Properties





Upland Industries Corporation continued to generate new business for Union Pacific throughout the West by acting as the industrial development agent for the Railroad, responsible for the Corporation's land bank of prime industrial and commercial sites and other properties held for investment. Upland develops property for modern, strategically located industrial parks in key population centers served by the Union Pacific Railroad.

Upland achieved a net income of \$4.22 million in 1977. This was a decrease of 7 percent compared to 1976's net income of \$4.5 million, and reflected less-than-anticipated commercial and residential land sales. Upland's sales and lease revenues were \$26.6 million compared with \$21.3 million in 1976. The sales mix in 1977 produced a lower margin level than in 1976.

Upland's net income is not the only indication of its contribution to the Corporation. From 1971 through 1977, the company cooperated with the Railroad in attracting 1,155 industrial and commercial clients to rail-served sites; these firms generate approximately \$112 million of recurring annual revenue for Union Pacific.

Main developments in Upland's year were: • Election of L. B. Harbour, Jr., as its new President:

 Location of 135 industrial facilities in 1977 on rail-served sites;

• Continued development of residential sites to meet the housing needs of areas in Wyoming impacted by energy-development activities.

Some of the major facilities located on-line by Upland in 1977 included: a \$10-million concrete and steel pipe manufacturing plant near Aurora, Colorado; a \$4.5-million combination warehouse and office building at Carson, California; a \$4-million rock-drilling equipment plant at Denver; a \$2.25-million paper products distribution facility near Seattle; a \$2.25-million folding-wall and automatic-door plant and office facility at Salt Lake City; a \$3.75-million warehouse/office facility for rail-served tenants at Carson, California; and a \$3.5-million office building/warehouse at City of Industry, California.

building/warehouse at City of Industry, California. Upland, working closely with Champlin and Union Pacific Railroad, is preparing a master plan for part of the 1,000-acre Wilmington, California Oil Field. This plan would harmonize with Champlin's ongoing oil operations and the Railroad's activities in the area. The Wilmington property is well-served by all forms of transportation, including railroads, trucks and ships.

Residential Development Benefits Impacted Region—In its continuing program to alleviate the housing shortage caused by rapid growth in southern Wyoming, Upland has developed 1,300 lots to date and made these available to local builders, primarily in the Green River/ Rock Springs area.

Organizational Changes—In September, L. B. Harbour, Jr., 57, was elected President of Upland, replacing John W. Godfrey, who will remain a consultant to Upland until his normal retirement in June 1978. Mr. Harbour was President of a Los Angeles-based company providing specialized and consulting services for the building and real estate industry. He served Upland as a consultant for several years. Mr. Godfrey joined the Union Pacific Railroad in 1934 and advanced through numerous management positions to President of Upland in 1968.

At year-end, Howard F. Hansen, 55, was appointed to the newly created position of Executive Vice President. Formerly Vice President-Lands, Mr. Hansen has served Upland and Union Pacific in a broad array of managerial capacities for 36 years.

Five other appointments were made at yearend. John H. Dyer, 42, was promoted from Controller to Vice President-Finance and Administration, and Byron D. Strattan, 47, was promoted from Western General Counsel to Vice President-Law. William I. Kennedy, 48, was named Vice President-Special Projects and remains Los Angeles General Solicitor. James D. Richter, 42, was appointed Vice President-Business Development, replacing James G. Black; and Charles R. Burris, 49, was appointed Director of Engineering, replacing Gerald D. Scheer. Mr. Black and Mr. Scheer retired from Upland on January 1, 1978 after 39 and 29 years respectively with Union Pacific.



OPPOSITE PAGE—The development of Upland's Centennial Park in Salt Lake City is proceeding rapidly. Several industrial and distribution facilities already are in operation and others are under construction.

RIGHT—West Valley Industrial Park in Seattle was one of several areas where Upland in cooperation with the Railroad was particularly successful in 1977 in attracting industrial and commercial clients to rail-served sites.

Union Pacific Corporation

Board of Directors



Executive Committee:

E. Roland Harriman, Honorary Chairman; Partner, Brown Brothers Harriman & Co., bankers, New York, N.Y.



James H. Evans, Chairman and Chief Executive Officer, New York, N.Y.



William S. Cook, President and Chief Operating Officer, New York, N.Y.



Elbridge T. Gerry, Chairman of the Executive Committee; Partner, Brown Brothers Harriman & Co., bankers, New York, N.Y.











Middle Row:

John C. Kenefick, President, Union Pacific Railroad Company, Omaha, Nebraska

Bottom Row: Oscar T. Lawler, Retired Chairman of the Executive Committee, Security Pacific National Bank, Los Angeles, California Morris F. Miller, Vice Chairman, Omaha National Corporation, bank holding company, Omaha, Nebraska William T. Smith, President, Champlin Petroleum Company, Fort Worth, Texas

Minot K. Milliken, Vice President and Treasurer, Milliken & Company, textile manufacturing, New York, N.Y.



Robert A. Lovett, Retired Chairman of the Executive Committee, Union Pacific Railroad Company; Partner, Brown Brothers Harriman & Co., bankers, New York, N.Y.



Frank E. Barnett, Retired Chairman and Chief Executive Officer, Union Pacific Corporation; Of Counsel, Shea Gould Climenko & Casey, lawyers, New York, N.Y.



Courtney C. Brown, Chairman, American Assembly, Inc., educational forum and publications, Columbia University, New York, N.Y.



Hamilton B. Mitchell, Chairman of the Executive Committee, Dun & Bradstreet Companies, Inc., financial information, communications, transportation and marketing services, New York, N.Y.



George S. Eccles, Chairman and Chief Executive Officer, First Security Corporation, bank holding company, Salt Lake City, Utah

Edward L. Palmer, Chairman of the Executive Committee, Citicorp, bank holding company, New York, N.Y. Spencer F. Eccles, President, First Security Corporation, bank holding company, Salt Lake City, Utah

James D. Robinson, III, Chairman and Chief Executive Officer, American Express Company, financial, insurance and travel services, New York, N.Y. John B. Fery, President and Chief Executive Officer, Boise Cascade Corporation, timber, wood products, paper and paper-related activities, Boise, Idaho

Robert W. Roth, President and Chief Executive Officer, Jantzen Inc., sportswear manufacturer, Portland, Oregon William D. Grant, Chairman of the Board and Chief Executive Officer, Business Men's Assurance Company of America, insurance, Kansas City, Missouri

Vernon F. Taylor, Jr., President, Westhoma Oil Company, oil, gas and mineral exploration, Denver, Colorado





Union Pacific Corporation

Corporate Officers*



William J. McDonald



William P. Raines



Richard N. Little



Harry B. Shuttleworth



Paul J. Coughlin, Jr.



William F. Surette



John P. Halan



G. Henry M. Schuler



Chester A. Rose



John R. Mendenhall

James H. Evans Chairman William S. Cook

President Elbridge T. Gerry Chairman of the Executive Committee

William J. McDonald Senior Vice President-Law

William F. Surette Vice President-Finance

William P. Raines Vice President-Corporate Relations

John P. Halan

Vice President-Employee Relations

Richard N. Little Vice President G. Henry M. Schuler

Vice President Harry B. Shuttleworth Treasurer **Chester A. Rose**

Controller Charles N. Olsen Secretary

Paul J. Coughlin, Jr. General Counsel John R. Mendenhall

Director of Taxes and General Tax Counsel

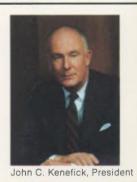
*Photos of Messrs. Evans, Cook and Gerry are shown on page 20.



Charles N. Olsen

Officers of Operating Companies

Union Pacific Railroad Company



Champlin Petroleum Company



William T. Smith, President

Rocky Mountain Energy Company



Upland Industries Corporation



L. B. Harbour, Jr., President





Robert L. Richmond Vice President— Operation



Walter P. Barrett Vice President-Traffic



C. Howard Burnett Vice President-Executive Dept.

Regional Mgr.-

Houston



Glen L. Farr Vice President-Labor Relations



C. Barry Schaefer Vice President-Law



Finance & Admin.

John P. Deasey Controller



B. F. Abernathy Vice President-Exploration & Production



Linn F. Adams Vice President and Regional Mgr.— Denver



Frederick M. Otto Vice President-Manufacturing and Marketing



Bruce J. Relyea Vice President-Finance & Administration



Roy K. Russell Vice President-Industrial Relations



Charles A. Zubieta Vice President-General Counsel



Stuart S. Merwin Vice President— **Business** Development



Eugene A. Lang Vice President-Engineering and Operations



Kenneth R. Oldham Vice President— Law and Government Affairs



Charles L. Eaton Vice President-Finance and Administration



Larry G. Weber Vice President— Employee Relations



Howard F. Hansen Executive Vice President



John H. Dyer Vice President– Finance and Administration



Byron D. Strattan Vice President-Law



William I. Kennedy Vice President-Special Projects



James D. Richter Vice President-Business Development



Charles R. Burris Director of Engineering

Other Officers of Union Pacific Operating Companies

Union Pacific Railroad Company Fred L. Morgan—Assistant Vice President—Sales Robert L. Godfrey—Assistant Vice President—Marketing

Champlin Petroleum Company William E. Biggerstaff—Vice President—Mid-Continent Area D. O. Churchill—Vice President—Land David Goodwill—Vice President—Pacific Division Frank L. Jones—Vice President

Enhancing Skills ...Benefiting the Community

Employee Relations—During 1977, Union Pacific Corporation and its four operating companies employed an average of 28,787 people, compared with 28,386 in 1976. Salaries, wages and benefits increased significantly from \$641 million in 1976 to \$698 million in 1977.

Negotiations continue between railroad industry representatives and the rail labor organizations to reach new labor agreements covering wages, benefits and work rule changes.

The unions are demanding significant wage increases in each of the next three years, increases in cost-of-living adjustments and improved non-wage benefits.

The industry is seeking productivity improvements through major work rule revisions. Specifically, management proposals to determine the crew size of on-train employees, simplification of the pay system and relaxation of the barriers separating road and yard service are significant issues in the negotiations.

Stock Ownership Plan—Nearly 4,500 salaried, non-agreement employees will participate in the first allocation of more than 96,000 shares of common stock under the new Union Pacific Employee Stock Ownership Plan. This program, made possible by recent Federal legislation, provides corporations with an additional one percent annual investment tax credit if it is used to fund an employee stock ownership plan. It is designed to retain and motivate employees by permitting them to participate in the growth potential of Union Pacific as stockholders.

The Union Pacific Employee Stock Ownership





Plan applies to all full-time, salaried, non-agreement employees (with the exception of senior management) with at least two full years of service. Eligible participants will be paid dividends and will have voting rights. The common stock allocation for each employee is commensurate with his or her gross annual earnings. The first allocation of stock, based on investment tax credits in 1976, should take place in April 1978, after the expected approval of the Plan by the Internal Revenue Service.

Management Development—Union Pacific provides a variety of education and development opportunities for career and personal growth.

As part of a continuing effort to assure high levels of operating efficiency, the Railroad, Champlin and Rocky Mountain Energy selected several key officers and managers to participate in executive and management development programs at Cornell, Harvard, Michigan, MIT, Pittsburgh and Stanford.

Nearly 700 managers and supervisors attended job-related seminars and classes conducted by the Railroad in 1977. This included 120 traffic agents and sales personnel who participated in sales management courses.

Champlin accelerated its management development program in 1977, increasing participation to 250 employees. In addition, a number of managers attended seminars, courses and conferences on environmental subjects such as oil-spill cleanup and ambient-air dispersion.

Rocky Mountain Energy offered both outside and in-house seminars and workshops in various managerial skills for 35 key employees.

Employee Training—During 1977, Union Pacific Railroad carried out a major, Federally mandated program to train employees in the handling of hazardous materials on line. Nearly 9,000 employees received this valuable instruction.

The Railroad expanded its craft skill-building program in 1977. More than 2,000 locomotive engineers, switchmen/brakemen, pilot yard foremen, signalmen, purchasing personnel, clerks and apprentices participated in courses. Champlin conducted on going technical

safety and first-aid courses for approximately



TOP-Howard Cordova was one of 224 employees who participated in Union Pacific's locomotive engineer program in 1977 at the Cheyenne, Wyoming Training Center.

BOTTOM LEFT—Locomotive engineer Edwina Justus, at the North Platte Yard in Nebraska, completed her training in mid-1977.

BOTTOM RIGHT—Union Pacific Railroad's annual staff conference, held in June 1977 at Sun Valley, Idaho, featured seminars, discussions and lectures to further management development.

Champlin Petroleum Company:

Discovering, Developing and Refining Petroleum Resources



Champlin Petroleum—which is engaged in exploration, development, production, refining, transportation and marketing of oil, oil products, natural gas and petrochemicals stepped up its activities on a broad front in 1977. Champlin continued to participate in important discoveries in the Overthrust Belt in the Rocky Mountains and enhanced its production of natural gas and natural gas liquids with significant finds in Wyoming, Texas and Canada. The company increased its refining capacity substantially and embarked on a major joint-venture project to diversify downstream into ethylene production.

In 1977, Champlin achieved a new high of \$84.4 million in net income, a gain of 11 percent over 1976 earnings of \$75.8 million. The company increased its income before Federal income taxes 44 percent from \$96.6 million in 1976 to \$139.4 million in 1977. Champlin's revenues reached \$1.1 billion, up 38 percent over the \$827 million recorded in 1976. Champlin's successful year was highlighted by the following developments:

 Its largest and most successful drilling program with participation in 225 successful wells;

• Return to Champlin of rights to several million acres of land in the Rockies which have been subject to the Amoco Drilling Agreement;

• Exceeding expected capacity of the expanded Corpus Christi, Texas refinery;

 Groundbreaking at the \$630-million jointventure ethylene complex at Corpus Christi;

• Participation in a very promising gas discovery at Erith, near Edmonton, Canada.

Exploration and Development Expands—In 1977, Champlin carried out a broad and successful exploration and development program of more than \$100 million. Under this program, the company drilled 148 wells, of which 122 were successful, and participated in 145 more, of which 103 were successful.

Champlin substantially increased the acreage it held under oil and gas leases. During 1977, the company leased 475,835 acres, bringing its total holdings to 1,365,328 acres. Approximately 332,000 acres were held by production.

Amoco Agreement Expires—On October 31, the exploration agreement with Amoco Production Company expired. This contract, entered into in 1969, permitted Amoco to evaluate the 7.4 million acres in the Union Pacific Land Grant. The drilling rights in more than 4.7 million of these acres, representing a promising resource base, reverted to Champlin over the eight-year life of the agreement. During the term of the agreement, Champlin earned a total of \$84.4 million in option payments, production and production royalties. Amoco also caused more than \$260 million to be spent on exploration across Wyoming, Colorado and Utah. Because of this aggressive program, Champlin now has extensive drilling data and invaluable knowledge of the most promising areas to develop in the Land Grant. The company will now step up its exploration in this extensive acreage.

Of the 2,615 wells drilled by Amoco on the Land Grant, 1,387 or 53 percent were successful. Champlin received \$17.8 million in royalties and \$40.9 million in production from 1970 through 1977. Champlin participated in 179 wells on acreage retained under the agreement. *Overthrust Belt*—The Overthrust Belt continued to be one of the most active regions of petroleum exploration in the United States. This extensive oil and gas region runs north from Utah through Wyoming, Idaho and into Canada. The most intensive exploration in this area is taking place in the southern part of the Belt on the Land Grant.

Pineview, Ryckman Creek and Painter Reservoir Fields—Champlin is playing a very direct and active role in the development of the three most promising fields so far discovered in the Overthrust—Pineview, Ryckman Creek and Painter Reservoir Fields. The U.S. Geological Survey estimates that Pineview has recoverable reserves of 100-million barrels of oil and 100billion cubic feet of gas; it places Ryckman Creek's reserves at 60-million barrels of oil and condensate and 200-billion cubic feet of gas. Painter Reservoir is indicated to be a major accumulation of hydrocarbons but, until addi-



RIGHT—Champlin's Newton Sheep well in the Pineview Field is one of several successful wells completed by a number of operators during 1977 in the Utah area of the Overthrust Belt region, the center of the most active onshore petroleum exploration in the United States. TOP RIGHT—Wyoming Governor Ed Herschler, center, James H. Evans, left, Union Pacific Chairman, and James C. Wilson, RME President, inspect the Bear Creek mine-and-mill complex following the dedication in September. The ceremonies included a tour and open house for local ranchers, businessmen and government officials.

MIDDLE RIGHT-Texas Governor Dolph Briscoe was keynote speaker at the June groundbreaking for the joint-venture ethylene plant at Corpus Christi. **Representing the three** partners in the international venture were, left to right, M. Whitson Sadler, Vice Chairman, Soltex **Polymer Corporation (Sol**vay); Edward J. Goett, **President, ICI Americas** Inc.; and William T. Smith, **President, Champlin** Petroleum.

BOTTOM RIGHT-In January 1977 a 2-for-1 stock split became effective, and in September the Board of **Directors approved an Employee Stock Owner**ship Plan for salaried, non-agreement employees who have a minimum of two years of service. Union Pacific Transfer Agent Edward L. Bialer, left, discusses procedures for efficient processing of a higher volume of stock certificates with members of his New York staff, **Terrence O'Neil and** Camille T. Moglia.

700 field employees, along with extensive operational programs for both supervisory and non-supervisory personnel.

Technical training was conducted by Rocky Mountain Energy for geologists and engineers. RME also conducted on-the-job skills training for equipment operators and instituted a safety course at the Bear Creek uranium mine. Educational Assistance-The Union Pacific Tuition Assistance Program provides an excellent educational opportunity for employees throughout the Corporation to participate in courses which will help them to acquire or strengthen job-related skills. In 1977, more than 950 employees took advantage of this benefit. Matching Gifts- The Union Pacific Matching Gifts Program continued to generate a gratifying response in its second year of operation. During 1977, the Corporation matched 174 gifts made by eligible employees to 92 colleges and universities for a total contribution of \$26,000. In November, Union Pacific doubled the maximum contribution it will match from \$1,000 to \$2,000 per year and expanded coverage to include gifts to private, tax-exempt secondary schools.

Union Pacific Foundation—The extensive philanthropic program of Union Pacific Corporation and its four operating companies is administered by the Union Pacific Foundation through a far-ranging program of grants made in the many communities in which Union Pacific operates. For the past 19 years, grants of assistance averaging \$1 million annually have been made to institutions of higher education, health, human welfare, including united community funds, and the arts. Foundation giving is expected to increase to meet the growing needs of the widening areas served by Union Pacific.

The Foundation often makes special grants for projects which will produce increased efficiency and future savings for the recipient. For example, a grant to the National Asthma Center in Denver is underwriting the purchase of a computerized unit for pulmonary testing. The new equipment permits this residential institution for children to increase the number of daily diagnostic tests from three to 12 and also reduces the cost of testing by requiring less technician time. Another grant with wide practical benefit was made this year to Texas Christian University in Fort Worth to support the construction of a centrally monitored heating and cooling system for this 254-acre campus. The new system will increase operating efficiency and greatly reduce this institution's annual energy costs.

Scholarships—Under a continuing program, Union Pacific Railroad in 1977 awarded 35 scholarships to children of employees on a competitive basis. Each scholarship provides \$400 per year, renewable for three additional years, dependent on academic achievement. On this basis, 57 scholarships were renewed.

The Railroad has long helped deserving young men and women in the extensive agricultural region where it operates. Since 1921, the company has awarded scholarships to nearly 12,500 members of 4-H Clubs and Future Farmers of America. In 1977, grants of \$400 each were presented to 95 young people in 13 states.

The Railroad's Youth Recognition Program has been expanded to include both Wyoming and Nebraska. Funded by Union Pacific and sponsored by the Council of Youth organizations in each state, the program selects deserving high school seniors on the basis of leadership and citizenship. Monthly winners receive a \$100







Savings Bond and are eligible for competition for annual scholarship awards of \$1,000.

In 1977, the top awards of \$1,000 were won by Gerald Dickinson of Gillette, Wyoming and Brian Wilson of Omaha. Mr. Dickinson is attending the University of Wyoming and Mr. Wilson is attending Kearney State in Nebraska.

Community Relations—"Operation Lifesaver," which Union Pacific Railroad created as a joint effort with western railroads and government agencies, has helped to reduce accidents at rail crossings by 19 to 30 percent in Kansas, Idaho, Nebraska, Colorado, Oregon and Utah.

It continues to receive laudatory recognition from the National Transportation Safety Board, an agency of the Federal Government which has encouraged the program's use in every state in the Union.

The program consists of a three-tier defense against crossing accidents. The first step is to educate the public through meetings with state and local officials, audio-visual aids, television and newspaper advertisements. The second step is to modify or eliminate such hazards as curves and obstructions at rail crossings. The third step is to enforce rail-crossing laws strictly and to urge compliance with guard mechanisms.

As part of an effort to clarify all aspects of the nation's energy problems, Champlin published a booklet entitled "The Energy Debate", which, in cartoon form, explains the vital role that the free market plays in increasing the nation's supply of energy resources.

The response to the booklet from many members of Congress and industry was very enthusiastic. Many companies, legislators, trade associations and government agencies requested additional copies for wide dissemination.

Rocky Mountain Energy participated in university workshops, conferences and environmental seminars to broaden the public's understanding of the mining industry's contributions and its sound practices in regard to environmental safeguards and community responsibilities. RME also has conducted comprehensive studies to determine the social, economic and public effects of its proposed mining operations and has shared this information with the communities to help them manage growth effectively.

Upland people acted as advisors or co-sponsors for workshops on energy-impacted areas.

Environmental and Conservation Efforts— During the last six years, Union Pacific has spent \$71 million on wide-ranging environmental projects and has carried out extensive energysaving programs in all phases of its business.

In 1977, Union Pacific Railroad began equipping its locomotive fleet with a device which can substantially reduce diesel fuel consumption. This device allows the locomotive engineer to knock down the power output of any unit in his locomotive consist simply by flicking a switch on his console. When train operating conditions permit the use of this device, significant fuel savings are realized by operating the remaining units at their most efficient power level, resulting in a reduced fuel-consumption rate. On test runs conducted jointly by Union Pacific and the Federal Railroad Administration, reductions in the fuel-consumption rate of up to 8 percent have been achieved. More than 500 of these devices are installed on Union Pacific locomotives.

Champlin upgraded the effectiveness of its waste-water treatment system at the Enid, Oklahoma refinery by creating a landfarm disposal site for oily solid-waste material, by improving the rainwater drain system and by adding a second-stage, sour-water stripper at a total cost of \$450,000. At the newly expanded Corpus Christi refinery, the company completed a landfarm for biological disposal of oily wastes.

Rocky Mountain Energy's new Bear Creek uranium complex combines the highest standards of industrial design with very stringent environmental safeguards. All lands disturbed by mining or milling will be reclaimed; initial reclamation work has already begun in one area where mining has been completed.





LEFT—Rocky Mountain Energy, with 41 employees participating, raised the largest amount of money in a Denver "Jog-a-thon" for the benefit of the American Cancer Society. Judy Flook, RME uranium geologist, shown leading the joggers, also ran in the Boston Marathon in 1977.

RIGHT—Arthur L. Young, Manager of Personnel Services and Equal Employment Opportunity, presents a blueprint machine donated by Union Pacific Railroad to the Omaha Opportunities Industrialization Center. The machine, which will be used in the Center's training program in drafting and blueprinting, is accepted by Bernice Stephens-Dodd, Executive Director.

Union Pacific Corporation and Subsidiary Companies

Index

Financial Review

Statement of Consolidated Income

Statement of Consolidated Changes in

Consolidated Balance Sheet

Financial Position

Financial Review



A ten-year summary of key financial data appears on page 44. Effective with this report, royalties, equity and other income formerly reported as other income have been reported as revenues with the adoption of the "single-step" Statement of Consolidated Income. The following comments are intended to provide an overview of operating results and selected supplementary financial information, which should be read in conjunction with the other sections of this report.

OPERATING RESULTS – Record revenues of \$2.55 billion were \$489 million or 24 percent higher than 1976. Net income for 1977 also reached a new high of \$221.9 million, up 18 percent from 1976 earnings of \$187.7 million before an extraordinary credit of \$7.5 million. Earnings per share in 1977 were \$4.68 compared with \$4.02 before the special credit in 1976.

Consolidated income before Federal income taxes of \$338.0 million showed a substantial 37 percent increase from 1976, as the Railroad and Champlin reflected gains of 28 percent and 44 percent, respectively. This 37 percent gain was not fully reflected in net income due to an increase in the effective Federal income tax rate from 24.1 percent in 1976 to 34.3 percent in 1977, caused principally by a marked decrease in investment tax credits relative to taxable income.

Contributions to revenues and income before extraordinary credit of the Corporation's areas of business for the years ended December 31, 1977 and 1976 are tabulated below:

| REVENUES | 1977 | | 197 | 6 |
|------------------|------------------|--------|-------------------|--------|
| | \$000 | % | \$000 | % |
| Transportation _ | | | \$1,174,544 | 56.9% |
| Oil and Gas | 1,141,044 47.190 | 44.7 | 826,746 24,809 | 40.0 |
| Mining | 26,615 | 1.0 | 21,256 | 1.0 |
| Other Income | 25,879 | 1.0 | 17,609 | .9 |
| | \$2,554,295 | 100.0% | \$2,064,964 | 100.0% |

| INCOME BEFOR | - | 197 | | 01 | 197 | 6 |
|--|----|--------------------------------------|------------------------------|----|-------------------------------------|-----------------------------|
| | _ | \$000 | % | | \$000 | % |
| Transportation _ Oil and Gas Mining Land Corporate | \$ | 116,262 84,381 23,211 4,220 | 52.4% 38.0 10.5 1.9 | \$ | 98,656 75,806 16,196 4,535 | 52.6% 40.4 8.6 2.4 |
| Interest Costs and Expenses | \$ | (6,165) | | \$ | (7,518) | (4.0) 100.0% |

Earnings of Union Pacific Railroad Company were \$116.3 million, an increase of \$17.6 million

29

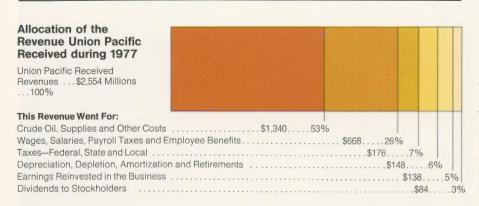
or 18 percent over 1976 earnings before the \$7.5 million credit. Revenues increased \$139.0 million or 12 percent reflecting higher freight volume and general freight rate increases. Carloadings in 1977 increased 4 percent and ton-miles of revenue freight moved during 1977 and 1976 were 60.9 and 56.8 billion, respectively, or an increase of 7 percent. Volume decreases in farm and food products were more than offset by traffic gains in intermodal trailer traffic, coal, soda ash and motor vehicles and parts.

Railroad operating costs increased \$103.6 million or 10 percent over 1976. Labor costs rose by \$46.4 million primarily as a result of wage increases and higher employee benefit costs. Materials and supplies costs were \$28.1 million higher than 1976, reflecting higher prices and expanded equipment maintenance programs as well as greater diesel fuel costs resulting from higher prices and increased freight volume.

Earnings of Champlin Petroleum Company were \$84.4 million, an increase of \$8.6 million or 11 percent over 1976. Revenues increased \$314.3 million or 38 percent due primarily to greater production from the Corpus Christi refinery and sales price increases for oil and gas products. Refined product sales volume increased 25 percent over 1976 to approximately 2.9 billion gallons.

Champlin's operating costs rose \$265.3 million or 37 percent over 1976. These higher costs were due mainly to greater production volume, increased foreign and domestic crude oil prices and higher utility rates. Income before taxes of \$139.4 million showed a gain of 44 percent over 1976. Higher taxable income and lower investment tax credits required a significantly higher provision for Federal income taxes in 1977.

Rocky Mountain Energy Company earned \$23.2 million, an increase of \$7.0 million or 43 percent over 1976. The Bear Creek Uranium and



Prospect Point Coal projects commenced operations in 1977. Related uranium and coal revenues coupled with greater sales, royalties and equity income contributed to the income gain.

Net income of \$4.2 million for Upland Industries Corporation decreased \$0.3 million or 7 percent from 1976, reflecting the sale of higher cost properties and increased operating expenses.

Cash Flow—Cash flow generated from operations was \$449.5 million, an increase of 22 percent and 50 percent over 1976 and 1975, respectively. This positive trend in internally generated funds helped pay higher dividends, service current debt obligations and finance a portion of the increasing capital investment program.

Capital Investments—During 1977, Union Pacific invested \$418.1 million in its subsidiary and affiliated companies. Direct capital expenditures totaled \$364.2 million compared with \$378.3 million in 1976. Capital investments relating to affiliated companies were \$53.9 million in 1977 and \$15.0 million in 1976. These capital investments reflect the continuing commitment to improving profitability while helping meet the nation's growing transportation and energy needs. Total capital investments by business area for the past two years are tabulated below:

TOTAL CAPITAL INVESTMENTS

| OTAL OAFTIAL II | 1977 | 10 | 1976 | |
|-----------------|-------------|--------|-------------|--------|
| | \$ millions | % | \$ millions | % |
| Transportation_ | \$204.2 | 48.8% | \$177.9 | 45.2% |
| Oil & Gas | 182.7 | 43.7 | 187.1 | 47.6 |
| Mining | 28.4 | 6.8 | 25.9 | 6.6 |
| Land | 2.8 | 0.7 | 2.4 | 0.6 |
| Total | \$418.1 | 100.0% | \$393.3 | 100.0% |

Transportation expenditures in 1977 included \$137.1 million for equipment acquisitions—primarily 90 locomotives and 2,087 freight cars (of which 650 were built in company shops)—and a \$13.0 million or 24 percent increase over 1976 road and structures expenditures of \$53.9 million. The principal thrust of oil and gas expenditures shifted in 1977 to an extensive exploration and development program from expansion of the Corpus Christi refinery in 1976. In the mining area, the Prospect Point coal loadout facility and the Bear Creek uranium complex were completed in 1977.

Planned 1978 capital investments total \$585 million, a 40 percent increase over 1977. This program provides for record investments by each operating company, with more than 60 percent of the total allocated to the energy businesses.

Financial Review (continued)

Financing — Short- and long-term borrowings aggregated \$968.9 million at December 31, 1977, a net increase of \$90.0 million during the year. New 1977 financing consisted of the sale of \$141.0 million in railroad equipment trust certificates to fund a significant portion of locomotive and rolling stock acquisitions in 1977 and early 1978. Commercial paper was used to finance temporary and interim requirements during the year. The 1977 increase in interest expense to \$66.8 million was attributable to the higher level of borrowing. Total debt as a percentage of consolidated capitalization was 27.0 percent at year-end 1977, the same as that for the prior year-end.

Federal Income Taxes—The provision for Federal income taxes was \$116.1 million, or \$56.6 million higher than 1976. The increase arose from higher taxable income and a lower level of investment tax credits due to completion in 1976 of the Corpus Christi refinery expansion.

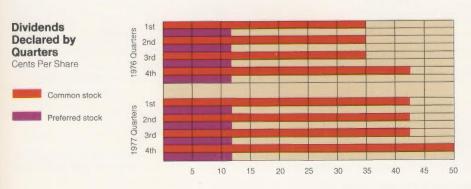
Stockholders' Equity - Stockholders' investment in Union Pacific aggregated \$2.1 billion at December 31, 1977, an increase of \$150.0 million over last year. Return on average stockholders' equity increased to 10.9 percent from 9.9 percent for 1976. Book value per common share also increased \$2.80 to \$44.54 at December 31, 1977. The 47,476,530 shares of common stock outstanding were held by 68,093 stockholders of record on December 31, 1977, while the 281,189 shares outstanding of 43/4 percent convertible preferred stock, Series A, were held by 1,676 stockholders of record. The \$16.9 million principal amount of 43/4 percent convertible debentures outstanding at the close of the year were held by 5,842 owners of record.

Common stock dividends declared during 1977 amounted to \$84.1 million for an increase

from 1976 of \$15.1 million or 22 percent. On November 30, 1977, the Board of Directors increased the quarterly dividend 18 percent from \$0.425 to \$0.50 per share. Common dividends declared increased from \$1.475 per share in 1976 to \$1.775 in 1977. Union Pacific has paid dividends to its common shareholders for 78 consecutive years. Dividends of \$0.475 per share were paid on outstanding preferred stock.

1976 Operating Results in Retrospect—Revenues were \$2.06 billion, an increase of \$275 million or 15 percent over 1975 excluding 1975's gain from sale of interests in the British North Sea. Earnings in 1976 of \$187.7 million before the extraordinary credit were up \$39.1 million or 26 percent over 1975 net income of \$148.6 million. Earnings per share in 1976 before the special credit were \$4.02 compared with \$3.21 for 1975.

Higher revenues more than offset increased costs and expenses, resulting in a net increase in income before taxes of \$59.6 million. Transportation revenues increased \$170.2 million due to higher freight volume and the effect of incremental freight rate increases. Other revenues, excluding 1975's gain of \$59.9 million from sale of interests in the British North Sea, increased \$104.5 million due mainly to improved prices for oil and gas products and additional coal and trona royalties. Costs and expenses, excluding a 1975 pre-tax provision for losses on offshore Florida leases of \$60.8 million, increased \$216.0 million reflecting negotiated wage increases, higher maintenance activity, increases in employee benefits, increased crude oil prices, higher material costs, additional utility fees and higher interest expense resulting from greater levels of borrowings. The provision for Federal income taxes increased \$20.5 million in response to higher taxable income partially offset by additional investment tax credits.



Market Price:

| | 13 | 311 | 1910 | |
|-----------------|---------|---------|---------|---------|
| | High | Low | High | Low |
| Common Stock | | | | |
| 1st Quarter | \$55 | \$47% | \$435/8 | \$38 |
| 2nd Quarter | 581/2 | 501/4 | 461/2 | 40% |
| 3rd Quarter | 573/8 | 48 | 461/8 | 423/8 |
| 4th Quarter | 501/2 | 421/8 | 511/4 | 41% |
| Preferred Stock | | | | |
| 1st Quarter | \$193/8 | \$167/8 | \$15 | \$131/8 |
| 2nd Quarter | 203/8 | 18 | 161/4 | 14 1/4 |
| 3rd Quarter | 197/8 | 163/4 | 16 | 143/4 |
| 4th Quarter | 171/2 | 151/4 | 175/8 | 143/4 |

1077

1976

Financial Review (continued)

Business Segments (Note 1)

Union Pacific Corporation and Subsidiary Companies

| | (Thousands of Dollars) | | | | | |
|---|---|---|---|--|--|--|
| Revenues: | 1977 | 1976 | 1975 | 1974 | 1973 | |
| Transportation Oil and Gas Mining Land Equity and other income | \$1,313,567 1,141,044 47,190 26,615 25,879 | \$1,174,544 826,746 24,809 21,256 17,609 | \$1,004,342 731,528 19,145 19,674 75,413 ^(a) | \$1,000,266 591,128 5,594 15,942 10,474 | \$ 882,245 327,109 4,065 20,931 9,074 | |
| Total Revenues | \$2,554,295 | \$2,064,964 | \$1,850,102 | \$1,623,404 | \$1,243,424 | |
| Operating Profit (Loss): Transportation Oil and Gas Mining Land | \$ 214,991 162,589 17,783 3,509 | \$ 179,604 113,628 10,210 5,865 | \$ 148,294 14,778 ^(b) 7,883 3,239 | 1,701 | \$ 170,669 57,331 911 (97) | |
| Total Operating Profit | 398,872 | 309,307 | 174,194 | 221,653 | 228,814 | |
| Equity and other income Interest expense Corporate expenses | 25,879 (66,817) (19,945) | 17,609 (60,672) (19,063) | 75,413 ^(a) (48,352) (13,678) | 10,474 (39,992) (11,551) | 9,074 (30,655) (10,121) | |
| Income Before Federal Income Taxes | \$ 337,989 | \$ 247,181 | \$ 187,577 | \$ 180,584 | \$ 197,112 | |
| Assets at December 31: Transportation Oil and Gas Mining Land Corporate | \$2,796,562 1,055,093 98,982 102,661 63,127 | \$2,587,498 827,806 80,230 115,476 82,736 | \$2,459,493 710,555 59,472 120,147 68,581 | \$2,267,539 491,575 41,822 126,712 100,805 | \$2,151,990 400,303 30,787 125,604 119,692 | |
| Total Assets | \$4,116,425 | \$3,693,746 | \$3,418,248 | \$3,028,453 | \$2,828,376 | |
| Depreciation, Depletion, Amortization and Retirements: Transportation Oil and Gas Mining Land Corporate | \$ 86,397 58,925 1,122 682 503 | \$ 80,288 47,894 312 719 503 | \$ 75,310 121,941 ^(b) 795 852 357 | | \$ 68,634 32,245 129 944 | |
| Total Depreciation, Depletion, Amortization and Retirements | \$ 147,629 | \$ 129,716 | \$ 199,255 | \$ 163,852 | \$ 101,952 | |
| Capital Expenditures ^(c) : Transportation Oil and Gas Mining Land Corporate | \$ 204,189 147,243 12,339 450 — | \$ 177,943 187,135 12,958 273 — | \$ 205,780 205,917 20,335 2,620 5,098 | \$ 195,760 189,566 8,596 6,311 3,780 | \$ 139,420 45,309 68 2,744 — | |
| Total Capital Expenditures | \$ 364,221 | \$ 378,309 | \$ 439,750 | \$ 404,013 | \$ 187,541 | |

(a) Includes a \$59,878,000 before tax gain from sale of interests in British North Sea.
(b) 1975 includes a \$60,774,000 provision for losses associated with Champlin's interest in nine tracts off the Gulf Coast of Florida based upon unsuccessful drilling results. The 1975 provision together with a \$60,000,000 provision recorded in 1974 completely reserved Champlin's \$120,774,000 investment in such leases.
(c) Excludes advances to and capital expenditures of unconsolidated affiliated companies.

The accompanying accounting policy disclosures and notes to financial statements are an integral part of this information.

| me | Union Pacific Co Subsidia | prporation and ry Companies |
|--|------------------------------|--------------------------------|
| | (Thousands | of Dollars) |
| | 1977 | 1976 |
| Revenues: | | |
| Transportation revenues | | \$1,174,544 |
| Sales and royalties | | 872,811 |
| Equity and other income | 25,879 | 17,609 |
| Total | 2,554,295 | 2,064,964 |
| Costs and Expenses: | | |
| Salaries, wages and employee benefits | 668,026 | 614,351 |
| Crude oil and other petroleum raw materials | | 468,727 |
| Materials and supplies | | 273,559 |
| Depreciation, depletion, amortization and | | |
| retirements (Note 4) | | 129,716 |
| Interest expense | | 60,672 |
| State and local taxes | | 54,097 |
| Other costs | | 216,661 |
| Total | 0.010.000 | 1,817,783 |
| Income Before Federal Income Taxes | 337,989 | 247,181 |
| Federal Income Taxes (Note 5) | | 59,506 |
| Income Before Extraordinary Item | | 187,675 |
| Extraordinary Item, Adjustment of Amtrak Reserve Net of Applicable Federal Income Taxes (Note 7) | | 7,500 |
| a have the factory of the second of the seco | 4 444 444 | \$ 195,175 |
| Net Income | \$ 221,303 | \$ 190,170 |
| Earnings Per Share (Note 12): Primary: | | |
| Income before extraordinary item | \$4.68 | \$4.02 |
| Extraordinary item | | .16 |
| | | 4.18 |
| Net income | 4.00 | 1.10 |
| Fully diluted: | 4.60 | 3.91 |
| Income before extraordinary item | | .16 |
| Extraordinary item | | 4.07 |
| Net income | | 4.07 |

Statement of Consolidated

| | | s of Dollars) ber 31, |
|---|------------------|--------------------------|
| | 1977 | 1976 |
| Assets | | |
| Cash (Note 6) | \$ 25,250 | \$ 42,843 |
| Accounts receivable-net | 322,198 | 237,802 |
| Inventories (Note 2) | 192,300 | 131,258 |
| Deferred Federal income tax benefit | 29,514 | 29,514 |
| Other current assets | 41,845 | 31,799 |
| Total Current Assets | 611,107 | 473,216 |
| Investments (Note 3) | | |
| Investments in affiliated companies | 117,558 | 77,374 |
| Other investments | 59,474 51,559 | 61,071 53,687 |
| Total Investments | 228,591 | 192,132 |
| Properties (Notes 4 and 6) | 4,168,751 | 3,899,684 |
| Less accumulated depreciation, depletion and | 4,100,751 | 0,000,004 |
| amortization | 1,129,283 | 1,050,126 |
| Properties-Net | 3,039,468 | 2,849,558 |
| Excess of Investment in Consolidated Subsidiaries | | |
| Over Equities in Recorded Net Assets | 71,740 | 71,740 |
| Other Assets and Deferred Charges | 165,519 | 107,100 |
| Total Assets | \$4,116,425 | \$3,693,746 |
| Liabilities and Stockholders' Equity | | |
| Current Liabilities | | |
| | \$ 54,000 | \$ 50,000 |
| Accounts and wages payableAccrued liabilities: | 143,557 | 117,707 |
| Taxes | 57,214 | 41,751 |
| Interest | 21,537 | 18,360 |
| Other accrued liabilities | 119,627 | 85,909 |
| Dividends payable | 24,455 | 20,688 |
| Long-term debt due within one year Other current liabilities | 49,974 | 44,729 6,926 |
| Total Current Liabilities | <u> </u> | 386,070 |
| Long-Term Debt Due After One Year (Note 6) | 864,935 | 784,191 |
| Deferred Federal Income Taxes (Note 5) | 570,413 | 478,641 |
| Other Liabilities and Deferred Credits | 83,034 | 77,306 |
| | | |
| Stockholders' Equity (page 36) | 2,117,529 | 1,967,538 |
| Total Liabilities and Stockholders' Equity | \$4,116,425 | \$3,693,746 |

Statement of Consolidated Changes in Financial Position

| | (Thousands of Dolla | |
|---|---------------------|----------|
| | 1977 | 1976 |
| Source of Funds | | |
| Operations: | | |
| Income before extraordinary item | \$221,909 | \$187,67 |
| Charges not requiring current outlay of working capital: | | |
| Depreciation and other non-cash charges | 135,199 | 126,09 |
| Provision for deferred Federal income taxes- | | |
| non-current | 88,271 | 30,53 |
| Working capital provided by operations | 445,379 | 344,3 |
| Proceeds from long-term financing | 141,000 | 256,1 |
| Other items—net | 59,500 | 51,1 |
| | 645,879 | 651,6 |
| Application of Funds | | |
| Dividends declared | 84,237 | 69,1 |
| Reduction of long-term debt | 59,438 | 197,1 |
| Capital expenditures: | | |
| Transportation | 204,189 | 177,9 |
| Oil and Gas | 147,243 | 187,1 |
| Other | 12,789 | 13,2 |
| Advances to affiliated companies | 37,765 | 10,1 |
| Changes in funds segregated for capital expenditures | 56,771 | 28,0 |
| Changes in funds segregated for capital experience | 602,432 | 682,7 |
| Net Increase (Decrease) in Working Capital | 43,447 | (31,0 |
| Working Capital at Beginning of Year | 87,146 | 118,1 |
| | \$130,593 | \$ 87,1 |
| Working Capital at End of Year | \$130,593 | φ 07,1 |
| Components of Increases (Decreases) in Working Capital Cash | \$ (17,593) | \$ 9,3 |
| Accounts receivable | 84,396 | 19,1 |
| | 61,042 | 9,4 |
| Deferred Federal income tax benefit | | (28,4 |
| Commercial paper | (4,000) | (50,0 |
| Accounts and wages payable | (25,850) | 23,7 |
| Accounts and wages payable | (52,358) | (5,5 |
| Other—net | (2,190) | (8,6 |
| | | (0)0 |
| Net Increase (Decrease) | \$ 43,447 | \$ (31,0 |

Statement of Consolidated Changes in Stockholders' Equity

Union Pacific Corporation and Subsidiary Companies

| | (Thousands 1977 | of Dollars) 1976 |
|--|---------------------------|---------------------------|
| Capital Stock (Notes 9 and 11): Preferred Stock, no par value (authorized 10,000,000 shares); 4¾ % Convertible Preferred Stock, Series A; \$10 stated value—outstanding: Balance at beginning of year (357,177 shares in 1977, 455,227 in 1976) | \$ 3,572 | \$ 4,552 |
| Less shares converted into common stock | • •,••= | φ 1,00 |
| (75,988 shares in 1977, 98,050 in 1976) | 760 | 98 |
| Balance at end of year (281,189 shares in 1977, 357,177 in 1976) | 2,812 | 3,57 |
| Common Stock, \$5 par value (authorized 60,000,000 shares)—outstanding: Balance at beginning of year (47,050,846 shares in 1977, 46,452,090 in 1976) Issuance of Shares upon: | 235,254 | 232,26 |
| Conversion of 4 ³ / ₄ % Convertible Debentures (288,903 shares in 1977, 516,270 in 1976) Conversion of 4 ³ / ₄ % Convertible Preferred Stock | 1,445 | 2,58 |
| (26,581 shares in 1977, 34,286 in 1976) Exercise of Stock Options (110,200 shares in 1977, | 133 | 17 |
| 48,200 in 1976) | 551 | 24 |
| Balance at end of year (47,476,530 shares in 1977, 47,050,846 in 1976) | 237,383 | 235,25 |
| Paid-in Surplus: Balance at beginning of year Issuance of Common Stock in excess of par upon: | 97,937 | 83,56 |
| Conversion of 43/4 % Convertible Debentures | 6,805 | 12,16 |
| Conversion of 43/4% Convertible Preferred Stock | 627 | 80 |
| Exercise of Stock Options Balance at end of year | <u>3,518</u> 108,887 | 1,39 |
| Retained Earnings (Note 6): | | |
| Balance at beginning of year Net Income for the year | 1,630,775 221,909 | 1,504,75 195,17 |
| Total Dividends Declared: | 1,852,684 | 1,699,92 |
| 4¾% Convertible Preferred Stock, Series A (\$.475 per share) Common Stock (\$1.775 per share in 1977, \$1.475 per | (150) | (20 |
| share in 1976) | (84,087) | (68,94 |
| Balance at end of year | 1,768,447 | 1,630,77 |
| Total Stockholders' Equity | \$2,117,529 | \$1,967,53 |

Champlin (continued)



Champlin's refinery located beside the ship channel at Corpus Christi, Texas can process more grades of crude oil, including high-sulfur oil, as a result of a \$250-million expansion. The crude fractionater and vacuum unit towers shown (left to right) are used in the initial stages of the refining process. **Principles of Consolidation**—The consolidated financial statements include the accounts of Union Pacific Corporation (Corporation) and all subsidiaries. Investments in affiliated companies (companies in which the Corporation owns between 20% and 50% of the voting stock) are reflected in the financial statements at equity. All material intercompany transactions are eliminated.

Effective with this report, the Corporation adopted the single-step form in the Statement of Consolidated Income. Accordingly, certain 1976 amounts have been reclassified to conform with the 1977 presentation.

Inventories—Materials and supplies are valued at average cost. Refined products and raw materials—crude oil are valued at cost under the lastin, first-out method (LIFO). Real estate developed and held for sale is carried at the cost of land and improvements thereto; however, administrative costs, property taxes and other carrying charges are absorbed in income on a current basis. All inventories are valued at the lower of cost or market.

Depreciation — Provisions for depreciation are computed principally on the straight-line method based on estimated service lives of depreciable properties, except for rails, ties and other track material owned by Union Pacific Railroad Company (Railroad) for which the generally accepted industry alternative of replacement accounting is utilized. Under this method, replacements in kind are charged to expense and betterments (improvements) are capitalized.

Depletion and Amortization-Champlin Petroleum Company (Champlin) capitalizes intangible drilling and development costs, leasehold costs and external geological and geophysical costs applicable to acquired mineral rights. Non-producing leasehold costs are accounted for on an individual lease basis. Non-producing leasehold costs incurred prior to January 1, 1976 are not amortized but are charged against income in whole when the leases are deemed worthless for future exploration purposes or in part when there is deemed to have been a probable diminution in value. Non-producing leasehold costs incurred after December 31, 1975 are amortized on a composite basis at rates based on past success experience and average lease life. Costs of such leases deemed worthless are charged to accumulated amortization. Provisions for depletion and amortization of producing oil and gas prop-

erties have been computed on a unit-of-production method by reference to periodic estimates of remaining reserves of the respective properties. Leasehold and development costs relating to other natural resource operations are capitalized and subsequently amortized when production commences.

Exploratory Costs—Drilling costs of unsuccessful wells, geological and geophysical costs for unacquired mineral rights and carrying costs of exploration privileges and mineral rights associated with oil and mining operations are charged to income.

Retirements—When property is sold or retired, the cost and accumulated depreciation and depletion are written off and related gains and losses are reflected in income, except for railroad equipment or depreciable road property, where the cost less salvage value (service value) is charged to accumulated depreciation.

Excess of Investment in Consolidated Subsidiaries over Equities in Recorded Net Assets — Included in this balance sheet item is \$68,592,000, representing the excess of the Corporation's investment at cost in Champlin over equity in the underlying net assets at date of acquisition. This excess cost is not being amortized because, in the opinion of management, there has been no diminution in the underlying value of the investment.

Investment Tax Credit—The Corporation employs the "flow-through" method of accounting for the investment tax credit. Under this method tax credits are recorded as a reduction in the Federal income tax provision to the extent available for financial reporting purposes. In 1977, the Corporation adopted an Employee Stock Ownership Plan (TRASOP) pursuant to the Tax Reform Act of 1976 ("the Act"). In this connection, an additional 1% credit pursuant to the Act is offset against the Corporation's required contribution to the TRASOP.

Oil and Gas Accounting Policies—The Financial Accounting Standards Board (FASB) issued FASB Statement No. 19 on "Financial Accounting and Reporting by Oil and Gas Producing Companies" in 1977. The statement is effective for fiscal years beginning after December 15, 1978 and for interim periods within those years. The accounting standards established by the statement will neither significantly affect Union Pacific's results of operations nor require retroactive restatement of prior period financial statements.

Union Pacific Corporation and Subsidiary Companies

2. Inventories

Inventories consisted of the following at December 31:

| | (\$ | (\$000) | | | |
|---|-----------|-----------|--|--|--|
| | 1977 | 1976 | | | |
| Materials and supplies Real estate developed and | \$ 75,289 | \$ 68,901 | | | |
| held for sale | 19,451 | | | | |
| Raw materials-crude oil | 67,840 | 19,966 | | | |
| | \$192,300 | \$131,258 | | | |

The excess of current replacement cost over the carrying value of inventories for which cost has been determined under the LIFO method at December 31, 1977 and 1976 approximated \$31,800,000 and \$24,100,000, respectively.

Reference is made to the Corporation's 1977 Annual Report on Form 10-K to be filed with the Securities and Exchange Commission (SEC) for unaudited information on the effects of the estimated replacement costs of inventories not carried under the LIFO method.

3. Investments

Investments in affiliates are carried at equity. Net income for the years ended December 31, 1977 and 1976 includes equity in net income of affiliates of \$9,477,000 and \$7,864,000, respectively.

Other investments at December 31, 1977 and 1976 include \$46,791,000 of marketable equity securities carried at written-down cost. At December 31, 1977 and 1976 quoted market value exceeded the carrying value of such securities by approximately \$27,156,000 and \$18,377,000, respectively.

Marketable equity securities include an investment in 2,149,319 shares of IC Industries, Inc. common stock with a carrying value of \$35,195,000 at December 31, 1977. The Corporation has agreed to dispose of the entire investment by 1982. The Corporation's plan of divestiture provides that one-third of the stock is to be sold by the end of 1980 and the remaining stock to be sold by August 10, 1982.

4. Properties

Major property accounts and related charges to income in accordance with the Corporation's accounting policies are listed as follows:

1. Business Segments

In accordance with FASB Statement No. 14 effective in 1977, certain financial and operating data is presented on a business segment basis on page 32 of the Financial Review. Information appearing therein for the years ended December 31, 1977 and 1976 is an integral part of these financial statements. Rail freight operations involve the movement of a wide array of minerals, farm products and manufactured goods. Oil and gas operations include the exploration, development and production of crude oil and natural gas and the refining, processing, transporting and marketing of petroleum products. Mining operations are responsible for developing Union Pacific's reserves of coal, trona (natural soda ash) and uranium. Land operations involve the sale. lease and development of prime properties to industrial and commercial customers. The Corporation operates principally in the United States.

Revenues by segment relate substantially to unaffiliated customers. Revenues less operating expenses constitute operating profit (loss). Identifiable assets by industry are those assets that are used in the Corporation's operations in each industry. Corporate assets are principally cash and marketable securities.

| | Accumulated | | | | (\$000) | |
|---|--|------|------------------------------|--|--------------------------------|--------------------------------|
| | Depreciation, Depletion and Properties Amortization (\$000) | | tion and | Components of Federal income tax expense: | 1977 | 1976 |
| | Decembe | . / | 1977 | Federal income tax effect on income for the year: | | |
| Transportation property: Road Equipment Other transportation property | \$1,207,145 1,801,151 12.850 | \$ | 119,697 545,711 7,102 | Currently payable before investment tax credit Deferred provision (a) | 68,187 | \$ 27,813 79,074 106,887 |
| ether trateportation property | 3,021,146 | | 672,510 | Less investment tax credit (under | | |
| Oil and gas property Other property | 1,082,739 64,866 | | 13,387 | "flow-through" method): Used in current and prior tax returns (b) | 57,459 | 27,297 |
| | \$4,168,751 | \$1 | ,129,283 | (Increase in) reduction of deferred provision | (20,084) | 20,084 |
| | Decembe | r 31 | , 1976 | | 37,375 | 47.381 |
| Transportation property: Road Equipment Other transportation property | \$1,153,706 1,721,059 11,140 | | 116,976 515,553 7,050 | Net provision for Federal income taxes: Currently payable after | | 540 |
| Oil and gas property Other property | 2,885,905 944,474 69,305 | | 639,579 399,194 11,353 | Borottoa prottorott (a) | 27,809 88,271 \$116,080 | 516 58,990 \$ 59,506 |
| | \$3,899,684 | \$1 | ,050,126 | | | |
| (\$ | | | 4070 | (a) The deferred provision results from in the recognition of expenses for tax ment purposes. The sources of these of effects in 1977 and 1976 are as follows | and financ lifferences : | and their |
| | 1977 | | 1976 | | 1+- | 000) |
| Depreciation, depletion and amortization: Transportation property Oil and gas property Other property Drilling costs of unsuccessful | 46,495 2,307 | | 78,841 31,128 1,534 | Non-current: Excess of depreciation deducted in tax returns over that reflected in financial state- ments because of accelerated | | 1976 |
| wells | 13,033 2,193 | | 16,621 1,592 | methods of computing depre- | | |
| Other retirements | \$ 147,629 | | | ciation for tax purposes | \$38,831 | \$34,312 |
| Repairs and replacement of track structure charged to income | | | 83.860 | Intangible drilling costs capitalized for financial state- ment purposes but expensed as incurred for tax purposes | 22,233 | 8,903 |
| | φ 01,700 | Ψ. | 00,000 | Other | 7,123 | 7,402 |

Other.

Tax rate reconciliation: Statutory tax rate

Current-Provision for offshore Florida lease acquisition costs

Decreases in tax rate resulting

The inflationary trend of the general economy in recent years has resulted in increasingly higher costs for replacement of "productive capacity." In accordance with generally accepted accounting principles the accompanying financial statements are based on historical costs; hence, the impact of inflation has not been fully reflected therein. Supplementary unaudited information concerning estimated replacement costs of properties may be found in the Corporation's 1977 Form 10-K to be filed with the SEC.

5. Federal Income Taxes

An analysis of the components of Federal income tax expense and the related reconciliation between the statutory and effective tax rates for the years ended December 31, 1977 and 1976 follows:

from: Investment tax credit (b) (11.1)(19.2)(1.1)(1.6) Depletion of natural resources (.9) (.6) Capital gains (.5) (.6) Dividend exclusions (.4) (1.6)Other book-tax differences 34.3% 24.1% Effective tax rate . (b) Excludes effect of the adoption in 1977 of the Corporation's TRASOP - \$3,778,000 in 1977 and \$4,713,000 in 1976.

Federal income tax returns have been examined by the Internal Revenue Service through 1972 for all companies. The Railroad's 1942 tax refund suit against the United States Government has now been finally adjudicated in the

50,617

28,457

1976

48.0%

\$79,074

68,187

\$68,187

1977

48.0%

Government's favor without receipt of any refund or payment of any net deficiency.

Settlement negotiations were concluded with IRS Appellate Conferees for the years 1943 through 1961 and the settlement is now under consideration by the Congressional Joint Committee on Taxation. Settlement negotiations have commenced with IRS Appellate Conferees for the years 1962 through 1972. It is the opinion of management, after consultation with independent tax counsel with respect to the years 1943 through 1973, that the Corporation is adequately accrued for Federal income taxes through December 31, 1977.

6. Debt

Long-term debt as of December 31 is summarized below:

| | (\$000) | | |
|--|---------------|---------------|--|
| | 1977 | 1976 | |
| Equipment Obligations, 5%% to 9%, due 1978 to 1992 Debentures, 8.4%, due 1987 to | \$515,836 | \$426,835 | |
| 2001 | 150,000 | 150,000 | |
| Notes, 8.6%, due 1983 | 100,000 | 100,000 | |
| Refunding Mortgage Bonds, Series C, 2½ %, due 1991 Commercial Paper | 43,279 20.000 | 43,279 20.000 | |
| Pollution Control Revenue Bonds, Series A, 7%%, due 2005 | 18,900 | 18,900 | |
| Convertible Debentures, 43/4 %, due 1999 | 16,920 | 25,177 | |
| | \$864.935 | \$784,191 | |

At December 31, 1977, \$20,000,000 in outstanding commercial paper has been classified as long-term debt because the intent is to refinance such obligations by the issuance of commercial paper or long-term debt. At December 31, 1976, \$20,000,000 in commercial paper due during 1977 was similarly classified.

The following table summarizes commercial paper activity for the years ended December 31:

| | (\$000) | | |
|--|----------------------------|----------------------------|--|
| | 1977 | 1976 | |
| Commercial paper: Maximum month-end outstanding_ Average daily balance Average interest rate Average interest rate on year-end | \$96,559 41,167 5.3% | \$87,860 31,207 5.1% | |
| balance | 6.7% | 4.6% | |

A five-year credit agreement in the amount of \$100,000,000 was negotiated with 31 banks during the year. It is non-cancelable by the banks through September 30, 1982. Loans under the agreement will bear interest at Citibank, N.A.'s base rate for 90-day loans and there is provision for an annual commitment fee of ½% on the unused portion. Unused commitments under the agreement are available to cover any debt due within one year that is classified as long-term. In addition to the credit agreement, there are individual lines of credit totaling \$100,000,000 with eight banks. The credit agreement and shortterm lines of credit were not used during 1977.

With respect to both of the credit arrangements, there is an informal agreement to maintain compensating balances in amounts deemed appropriate by the Corporation. Under prior credit arrangements which terminated in 1977, there were agreements with the participating banks to maintain aggregate compensating balances equal to 10% of the banks' total commitment and an additional 10% of funds in use. All compensating balances are unrestricted as to use at any time. During 1977 and 1976, average compensating balances were \$15,685,000 and \$17,000,000, respectively.

The agreement relating to the refunding mortgage bonds requires annual sinking fund deposits of \$430,000. Approximately 3,300 miles of Railroad main and branch line track, certain railway equipment, supplies and other facilities are subject to the lien of the mortgage securing these refunding mortgage bonds. Railway equipment under outstanding equipment trust certificates and purchase contracts is subject to prior lien.

The 4³/₄% debentures are redeemable at the option of the Corporation through April 1, 1978 at 102.38% of the principal amount and at reduced percentages thereafter. The 4³/₄% debentures are convertible (see Note 12) into common stock through April 1, 1999 at \$28.57 per share (subject to adjustment under certain conditions). During 1977 and 1976, \$8,257,000 and \$14,-757,500, respectively, of debentures were converted into shares of common stock.

The bank credit agreement and certain indentures contain restrictions relating to the payment of cash dividends. The amount of retained earnings available for cash dividends, under the most restrictive of the covenants, was \$256,195,000 at December 31, 1977.

Maturities of long-term debt for each of the five years 1978 through 1982 are \$49,974,000, \$49,964,000, \$51,474,000, \$50,361,000 and \$46,266,000, respectively. The 1978 maturities do not include debt due within one year which is expected to be refinanced.

7. Extraordinary Item

Effective May 1, 1971, the Railroad elected to participate in the National Railroad Passenger

Corporation (Amtrak) which assumed from participating carriers their operating and financial responsibilities for providing intercity rail passenger service. An extraordinary charge to income in 1971 of \$65,061,000 (net of applicable Federal income tax benefit of \$51,532,000) represented primarily accruals to provide for severance and wage protection payments to employees affected by the Railroad's discontinuance of rail passenger service, write-off of passenger facilities and equipment and the entry fee payable to Amtrak. A review in 1976 indicated an excess accrual. Accordingly, the balance of the accrued liability has been reduced and an adjustment of \$7,500,000 (net of applicable deferred Federal income taxes of \$5,700,000) is reflected in the accompanying income statement as an extraordinary credit to income.

8. Pension Plans

The Corporation and its subsidiaries have funded pension plans covering substantially all salaried employees. Actuarial reports issued in 1977 indicate that as of December 31, 1976 unfunded actuarial liabilities amounted to \$97,614,000 and the value of vested benefits exceeded market value of pension plan assets by \$14,434,000. Under the 1974 Pension Reform Act, the Corporation would be liable in the event of plan terminations for an amount no greater than such excess. Charges to operations for the plans amounted to \$18,112,000 in 1977 and \$16,378,000 in 1976. Such charges include prior service costs which are being amortized over thirty years.

The Corporation and its subsidiaries also have unfunded pension plans for officers and supervisors and for retirees under a predecessor plan. As of December 31, 1976 actuarial liability and vested benefits amounted to \$46,500,000 and \$38,000,000, respectively. Charges to operations for the unfunded plans are based upon actual payments to retirees and amounted to \$4,163,000 in 1977 and \$4,260,000 in 1976. In each year actual retirement payments approximate normal costs plus amortization of prior service costs.

9. Stock Options and Stock Appreciation Rights

The Corporation has two stock option plans (a 1976 Plan and a 1969 Plan). At December 31, 1977 and 1976, there were 1,060,300 and 1,207,100 shares, respectively, available for granting of additional options to officers and key employees. Outstanding options under the 1969 Plan may be gualified or non-gualified and are exercisable for a period of five and ten years, respectively, at 100% of market value at the date of grant. Options under the 1976 Plan are nonqualified and are exercisable for a period of ten years at 100% of market value at the date of grant. All options become exercisable one year after date of grant. Changes in common stock options outstanding during 1977 and 1976 are summarized as follows:

| | | 1977 | | | | |
|--|---|--|--|--|--|--|
| | Shares Under Option | Price Range Per Share | | | | |
| Balance Jan. 1 Granted Exercised Expired | 724,900 154,300 (110,200) (57,500) | \$21.07 to \$46.07 45.94 to 53.82 27.07 to 44.57 44.57 | | | | |
| Balance Dec. 31 | 711,500 | \$21.07 to \$53.82 | | | | |
| Exercisable Dec. 31 | 557,200 | \$21.07 to \$46.07 | | | | |
| | | 1976 | | | | |
| | Shares Under Option | Price Range Per Share | | | | |
| Balance Jan. 1 Granted Exercised Expired | 435,000 346,100 (48,200) (8,000) | \$21.07 to \$46.07 38.44 to 45.10 21.07 to 40.38 34.38 to 38.47 | | | | |
| Balance Dec. 31 | 724,900 | \$21.07 to \$46.07 | | | | |
| Exercisable Dec. 31 | 378,800 | \$21.07 to \$46.07 | | | | |
| | | | | | | |

The 1976 Stock Option Plan also provides for granting stock appreciation rights to holders of options, which permit them to surrender the related exercisable options, or any portion thereof, in exchange for cash or stock in an amount equal to the excess of the market price of the common stock on the date the right is exercised over the option price. During 1977 and 1976, options for 65,200 and 156,100 shares with stock appreciation rights were granted under the 1976 Plan at option prices ranging from \$44.57 to \$48.91. Charges (or credits) to income relating to such rights result from increases (or decreases) in the market value of the stock over either the option price for rights granted during the year or the beginning of year market value for rights granted in prior periods. Credits to income are limited to amounts previously provided for market value increases. At December 31, 1977 and 1976, there were 171,300 and 156,100 shares subject to outstanding stock appreciation rights, respectively. During 1977, \$306,000 was credited to income and, in 1976, \$1,044,000 was charged to income with respect to such rights.

10. Contingent Liabilities, Commitments and Litigation

At December 31, 1977 the Corporation was contingently liable for \$96,000,000 which includes indebtedness of affiliated companies, principal, interest and rental payments of various companies and additional premiums relating to a service interruption policy carried jointly with other railroads.

In addition, at December 31, 1977 Champlin had an approximate \$240,000,000 share of an estimated \$630,000,000 joint venture commitment for the construction of an ethylene plant at Corpus Christi, Texas. The partners plan to invest \$160,000,000, of which Champlin's share is approximately \$60,000,000. The venture intends to raise an additional \$470,000,000 through debt financing of which the Corporation and Champlin will guarantee \$180,000,000.

Champlin's operations in the United States are subject to Department of Energy (DOE) regulations which include price and allocation controls. The DOE and certain private parties have challenged Champlin's interpretation of certain provisions of these regulations. Management believes Champlin has complied with the regulations and that the final amount of price adjustments or rollbacks as finally determined, if any, will not have a material adverse effect on the consolidated financial position of the Corporation.

Certain subsidiaries of the Corporation, including Champlin, are parties to three lawsuits in Utah and one in Wyoming in which such subsidiaries' ownership of oil and gas and other mineral rights have been challenged in about 48,000 acres of land in Utah and 640 acres in Wyoming. Independent counsel has advised the Corporation that the mineral reservations involved in the lawsuits are valid and legally effective and include all right, title and interest to all minerals, including oil and gas, and they should be so construed by the courts. The mineral reservations involved in these lawsuits are similar or identical to mineral reservations covering many thousands of sections of Land Grant lands sold by the Union Pacific Railroad and its predecessor companies in Wyoming, Utah and Colorado. If any of these challenges should be successful, it is possible, depending upon the effect of such court decision as a precedent in other cases, that such subsidiaries' mineral interests in such other lands could be affected.

The Railroad is defendant to an action brought by the City of Los Angeles in which the City claims ownership of, and seeks an accounting with respect to, 206 acres of alleged tidelands and submerged lands located in the Wilmington oil field, a long-term oil producing property. In the opinion of independent counsel, the Railroad has substantial defenses which, in their view, should be sustained by the court.

There are several other lawsuits pending against the Corporation and certain of its subsidiaries not described in these Notes to Financial Statements. It is the opinion of management of the Corporation, after consulting with legal counsel, that such litigation will not have a material adverse effect on the consolidated financial position of the Corporation.

11. Stockholders' Equity

The outstanding preferred stock provides for cumulative cash dividends at an annual rate of \$0.475 per share; redemption at the option of the Corporation at \$10.80 per share through May 31, 1978 and at reduced amounts thereafter; and convertibility into common shares at the rate of 0.35 of a share of common stock for each preferred share.

Of the unissued common stock, 2,463,152 shares (2,938,836 in 1976) are reserved for issuance upon conversion of the convertible debentures and convertible preferred stock, and exercise of stock options.

12. Earnings Per Share

Primary earnings per share is based on the weighted average number of common shares outstanding during the year after giving effect to annual preferred stock dividend requirements. Fully diluted earnings per share is based on the weighted average number of shares of common stock and dilutive common stock options outstanding during the year; and assumes conversion of each share of convertible preferred stock into 0.35 of a share of common stock, conversion of each \$100 principal amount of convertible debentures into 3.5 shares of common stock at the beginning of the year and elimination of the convertible preferred stock dividends and the convertible debenture interest, less the related Federal income tax effect.

13. Quarterly Results of Operations (Unaudited)

The following is a tabulation of the unaudited quarterly results of operations for the two years ended December 31, 1977: (Thousands of Dollars, Except Per Share Amounts)

| | | 19 | 77 | | | 19 | 76 | | |
|--|------------------|------------------|------------------|------------------|------------------|--------------------|------------------|------------------------|--|
| | | Three Mor | ths Ended | | | Three Months Ended | | | |
| | March 31 | June 30 | Sept. 30 | Dec. 31 | March 31 | June 30 | Sept. 30 | Dec. 31 | |
| Revenues Income before Federal | \$602,665 | \$617,679 | \$641,278 | \$692,673 | \$489,451 | \$496,148 | \$512,910 | \$566,455 | |
| income taxes Income before | 67,345 | 79,405 | 83,896 | 107,343 | 50,701 | 55,715 | 63,673 | 77,092 | |
| extraordinary item Net income Earnings per share: Primary: Income before | 47,572 47,572 | 54,682 54,682 | 55,876 55,876 | 63,779 63,779 | 35,324 35,324 | 43,999 43,999 | 50,392 50,392 | 57,960(a) 65,460(a) | |
| extraordinary item | \$1.01 | \$1.15 | \$1.18 | \$1.34 | \$.76 | \$.94 | \$1.08 | \$1.24 .16 | |
| Net income Fully diluted: Income before | 1.01 | 1.15 | 1.18 | 1.34 | .76 | .94 | 1.08 | 1.40 | |
| extraordinary item | | 1.13 | 1.16 | 1.32 | .74 | .92 | 1.05 | 1.20 .16 | |
| Net income | .99 | 1.13 | 1.16 | 1.32 | .74 | .92 | 1.05 | 1.36 | |

(a) As more fully described in Note 7, an adjustment to the Amtrak reserve was effected in December 1976. The resulting credit of \$7,500,000, after giving effect to the related income taxes, has been reflected as an extraordinary item in the fourth quarter of 1976.

Auditors' Report

HASKINS & SELLS

INTERNATIONALLY DELOITTE, HASKINS & SELLS

UNION PACIFIC CORPORATION,

its Directors and Stockholders:

We have examined the consolidated balance sheets of Union Pacific Corporation and subsidiary companies as of December 31, 1977 and 1976 and the related statements of consolidated income, consolidated changes in stockholders' equity, and consolidated changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, such consolidated financial statements present fairly the financial position of Union Pacific Corporation and subsidiary companies at December 31, 1977 and 1976, and the results of their operations and the changes in their financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Haskins & Selle

TWO BROADWAY

NEW YORK, NEW YORK 10004

January 26, 1978

Ten-Year Financial Summary

Union Pacific Corporation and Subsidiary Companies

| | | 1070 | | | | | Share Amour | | 1000(1) | 1000/0 |
|-------------------------------------|-----------|-------------|-------------|-----------|-----------|----------|-------------|----------|----------|----------|
| | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 | 1970 | 1969() | 1968(1) |
| Revenues ⁽²⁾ | \$2,554.3 | \$2,065.0 | \$1,850.113 | \$1,623.4 | \$1,243.4 | | \$1,000.5 | \$ 953.7 | | |
| Costs and Expenses | 2,216.3 | 1,817.8 | 1,662.5 | 1,442.8 | 1,046.3 | 954.6 | 861.2 | 837.7 | 586.3 | 546.3 |
| Federal Income Taxes | 116.1 | 59.5 | 39.0 | 55.4 | 70.0 | 55.7 | 49.2 | 34.6 | 39.1 | 40.0 |
| ncome Before Extraordinary | | | | | | | | | | |
| Item | | 187.7(4) | | 125.2 | 127.1 | 104.5 | 90.1(4) | 81.4 | 84.4 | 77.3 |
| Net Income | \$ 221.9 | \$ 195.2(4) | \$ 148.6 | \$ 125.2 | \$ 127.1 | \$ 104.5 | \$ 25.1(4) | \$ 81.4 | \$ 84.4 | \$ 77.3 |
| Earnings Per Share ⁽⁵⁾ : | | | | | | | | | | |
| Primary: | | | | | | | | | | |
| Income Before Extraordinary | | | | | | | | | | |
| Item | \$4.68 | \$4.02(4) | \$3.21 | \$2.73 | \$2.81 | \$2.31 | \$2.00(4) | \$1.82 | \$1.88 | \$1.72 |
| Net Income | 4.68 | 4.18(4) | 3.21 | 2.73 | 2.81 | 2.31 | .55(4) | 1.82 | 1.88 | 1.72 |
| Fully Diluted: | | | | | | | | | | |
| Income Before Extraordinary | | | | | | | | | | |
| Item | 4.60 | 3.91(4) | 3.12 | 2.64 | 2.68 | 2.22 | 1.93(4) | 1.76 | 1.81 | |
| Net Income | 4.60 | 4.07(4) | 3.12 | 2.64 | 2.68 | 2.22 | .55(4) | 1.76 | 1.81 | - |
| Dividends Per Share ⁽⁵⁾ | \$1.775 | \$1.475 | \$1.40 | \$1.30 | \$1.12 | \$1.00 | \$1.00 | \$1.00 | \$1.00 | \$1.00 |
| AT DECEMBER 31 | | | | | | | | | | |
| Working Capital | \$ 130.6 | \$ 87.1 | \$118.2 | \$ 63.9 | \$ 128.4 | \$ 62.3 | \$ 90.1 | \$ 100.4 | \$ 80.7 | \$ 119.7 |
| Total Assets | 4,116.4 | 3,693.7 | 3,418.2 | 3,028.5 | 2,828.4 | 2,808.6 | 2,779.7 | 2,796.8 | 2,335.3 | 2,134.5 |
| Long-Term Debt Due After | | | | | | | | | | |
| One Year | 864.9 | 784.2 | 725.1 | 551.6 | 475.1 | 513.1 | 544.5 | 572.3 | 299.0 | 219.0 |
| Stockholders' Equity: | | | | | | | | | | |
| Total | 2,117.5 | 1,967.5 | 1,825.1 | 1,729.6 | 1,649.7 | 1,565.6 | 1,503.0 | 1,514.5 | 1,477.9 | 1,438.4 |
| Per Common Share ⁽⁵⁾ | \$44.54 | \$41.74 | \$39.19 | \$37.50 | \$36.18 | \$34.56 | \$33.29 | \$33.76 | \$32.94 | \$32.06 |
| FOR THE YEAR | | | | | | | | | | |
| Capital Investments(6) | \$ 418.1 | \$ 393.3 | \$ 439.8 | \$ 404.0 | \$ 187.5 | \$ 150.0 | \$ 178.7 | \$ 224.6 | \$178.3 | \$ 110.0 |
| Operating Cash Flow | | 369.1(4) | 299.6 | 300.5 | 283.1 | 248.0 | 221.4(4) | 218.4 | 173.0 | 164.8 |
| Total Salaries, Wages and | | | | | | | | | | |
| Employee Benefits | \$ 698.1 | \$ 641.0 | \$ 559.5 | \$ 539.1 | \$ 486.5 | \$ 431.3 | \$ 389.4 | \$ 370.0 | \$ 329.4 | \$ 313.4 |
| | | | | | | | | | | |

(1) Excludes the operating results of Champlin Petroleum Company which was purchased as of January 1, 1970.

(2) Includes royalties, equity and other income previously classified as Other Income.

(3) Includes a \$59,878,000 before tax gain from sale of interests in British North Sea.
(4) Net income in 1971 reflects an extraordinary charge of \$65,061,000 (net of income tax of \$51,532,000) representing the establishment of reserves for participation in Amtrak. The impact of the charge on primary and fully diluted earnings per share was \$1.45 and \$1.37, respectively. Fully diluted earnings per share for 1971 excludes potentially dilutive securities since inclusion would be anti-dilutive. Net income in 1976 reflects an extraordinary credit to income of \$7,500,000, representing the elimination of an excess Amtrak reserve balance. The credit increased primary and fully diluted earnings per share \$1.6. Operating cash flow excludes the extraordinary item.

(5) All per share amounts are restated to reflect a two-for-one common stock split effective January 27, 1977.

(6) Includes advances to and capital expenditures of unconsolidated affiliated companies.

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OPPOSITE PAGE-Union

Pacific Railroad's unit

nearly 3-million tons of low-sulfur coal from Rocky

Mountain Energy's jointventure Medicine Bow mine in Wyoming to utili-

ties in Kansas, Iowa and

Indiana.

trains hauled in 1977





EXECUTIVE OFFICES 345 Park Avenue New York, New York 10022 Phone: (212) 826-8200

OPERATING GROUPS Transportation Union Pacific Railroad Company 1416 Dodge Street Omaha, Nebraska 68179

Oil, Gas and Petrochemicals Champlin Petroleum Company 5301 Camp Bowie Boulevard Fort Worth, Texas 76107

Coal, Uranium and Other Minerals Rocky Mountain Energy Company 4704 Harlan Street Denver, Colorado 80212

Land Development Upland Industries Corporation Suite 1000, 110 N. Fourteenth Street Omaha, Nebraska 68102

TRANSFER AGENT Union Pacific Corporation 120 Broadway, Room 1722 New York, New York 10005

REGISTRAR OF STOCK U.S. Trust Company of New York 45 Wall Street New York, New York 10005

STOCK LISTING New York Stock Exchange Ticker Symbol-UNP

ANNUAL MEETING OF STOCKHOLDERS May 9, 1978–12:00 Noon, Hotel Utah, Salt Lake City, Utah The proxy statement and form of proxy will be mailed in early April. tional development drilling is completed, it is impossible to make an evaluation of its size.

Champlin and its drilling partners continue to evaluate the potential of discoveries in the nearby Whitney Canyon, Yellow Creek, Evanston and Southwest Pineview units.

By the end of 1977, the company was receiving a total of 4,200 barrels per day from the Overthrust Belt through production and royalties, and this is expected to rise substantially. Champlin is also participating in seismic exploration on 136,000 acres of the Overthrust outside the Land Grant. The company's interests in these leases range from 38 to 100 percent.

Greater Green River Basin-Champlin is also active in a second major area of development which overlaps the Land Grant-the Greater Green River Basin of Wyoming. The company has already been involved in drilling 27 successful natural gas wells in the Table Rock and Higgins Units, east of Rock Springs, Wyoming. Colorado Interstate Gas completed a processing plant in late 1977 to remove hydrogen sulfide from natural gas from the Madison and Weber Formations. With the start-up of this plant, Champlin's net share from Table Rock/Higgins wells increased approximately 10-million to 30-million cubic feet per day. This is expected to increase steadily through 1978 as more wells are completed. C.I.G. estimates that the Table Rock area's proven reserves are 529-billion cubic feet, of which Champlin's share is slightly more than 50 percent.

BELOW, RIGHT-Production and royalty oil received by Champlin from **Overthrust Belt wells.** pumped through "Christmas Tree" assemblies like this one at Ryckman Creek Field in southwestern Wyoming, reached 4,200 barrels a day at year-end 1977.

Carthage Field-In East Texas, Champlin, as operator, completed five natural gas wells in the Carthage Field in 1977. This helped to increase its net share from 12.3 to 18.1 million cubic feet of natural gas per day, which is being processed

(erage)

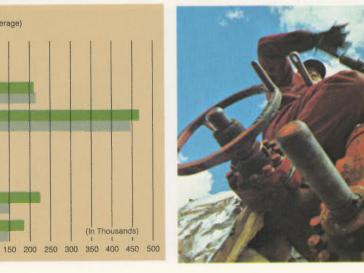
through the recently modernized Carthage gas plant, of which the company owns 52 percent. Austin Chalk Trend-In South Texas, Champlin completed thirty-four 100-percent-owned wells and four 17-percent wells during the last two years. The company's net share from these wells was 3-million cubic feet of natural gas per day and 1,500 barrels of "upper tier" oil. Other Significant Fields-Aggressive drilling programs in the Delaney Rim, Brady and Manning Fields in Wyoming and the Spindle-

Surrey Field in Colorado added to Champlin's net share of crude oil production by 1,233 barrels per day.

Erith, Alberta-Champlin participated in a significant natural gas discovery located approximately 130 miles west of Edmonton. The company has approximately a 25-percent interest in 30,400 acres in the Erith or Hanlan region. Gulf Oil Canada, the operator, has spudded a second well and plans to build a gas plant for start-up in 1981 to remove hydrogen sulfide. West Pembina, Alberta-Champlin has a 37.5 percent interest in 29,960 acres in this area, currently the most active exploratory region in Canada. Champlin, as operator, has spudded a wildcat well on this promising acreage, which is located west of Edmonton.

Offshore California-Champlin has an interest in 10 offshore tracts which it acquired for \$22.3million. In the Outer Banks, 100 miles offshore Los Angeles, the industry has drilled five wells without encountering commercial hydrocarbons. Champlin has participated in three of these tests. Closer inshore, in San Pedro Bay, Champlin has a 3.5 percent interest in Tract 254. Twelve wells have been drilled, nine of which have encountered hydrocarbon accumulations.

| Summary of Production and Ret | inery Ru | ns (Da | uily A |
|---|--------------------|---------------|--------|
| Net crude oil & field condensate, barrels | 43,694 44,261 | | |
| Net interest in gas from all sources, thousand cubic feet | 213,000 218,780 | | |
| Gas processed, thousand cubic feet | 467,549 444,564 | | |
| Plant products recovered, barrels | 21,034 17,196 | | |
| Net interest in plant products from all sources, barrels | 10,863 8,981 | | |
| Net production from refineries, barrels | 226,346 150,356 | | |
| Petroleum product sales, barrels | 186,783 149,357 | | |
| | | 50 | 100 |



Champlin (continued)

Although the quality of the oil and productivity of the area are undergoing evaluation for possible platform installation and development, overall results of exploration in this area to date have been disappointing.

Offshore Alaska—Champlin has 12-percent interests in two offshore tracts near Icy Bay in southern Alaska. It acquired these for \$10.9million. The industry has drilled seven dry holes in the Gulf of Alaska. Champlin has participated in one dry hole and is currently drilling on the second tract. The potential of this area has been significantly downgraded.

Production in 1977-Champlin's total production of crude oil and condensate decreased by 2 percent, from 16.2 million barrels in 1976 to 15.9 million barrels in 1977. Substantially higher production from the Pineview, Ryckman Creek, Pearsall, Delaney Rim, Brady and Manning Fields nearly compensated for the normal decline in Champlin's mature fields, primarily the Wilmington Field in California. Wilmington averaged 18,401 barrels per day in 1977, compared with 21,193 barrels in 1976. Only by means of a resourceful and expensive secondary-recovery waterflood program was Champlin able to hold Wilmington's decline to 13 percent. If the Department of Energy continues to permit exception price relief to Champlin-operated areas of the Wilmington Field, the company should be able to carry out the remedial work and additional drilling required to sustain production. Champlin is conducting a tertiary-recovery research project. In 1977, a pilot CO2 flood test was completed and results are being evaluated.

Although Champlin's total interest in production of natural gas decreased 3 percent, important new output from the Green River Basin and Carthage Field helped minimize the decline. The company's natural gas production decreased from 80.1 billion cubic feet in 1976 to 77.7 billion cubic feet in 1977.

During 1977, Champlin reversed the decline in its production of plant liquids, such as ethane and propane, and achieved the highest output of these important liquids in its history. The company's total plant liquid production increased from 3.3 million barrels in 1976 to 4.0 million barrels in 1977.

In late 1977, Champlin began a \$7-million program to modernize the Gulf Plains gas-processing plant at Bishop, Texas. A new cryogenic unit, which is scheduled to be completed in mid-1978, will be installed to increase ethane recovery from 52 to 88 percent.

Refining Throughput Raised—Champlin raised its total throughput 51 percent from 150,356 barrels per day in 1976 to 226,346 barrels per day in 1977. This gain resulted primarily from completion of the \$250-million program to expand the Corpus Christi refinery.

By mid-1977, the refinery was brought up to full production of more than 150,000 barrels per day. More importantly, this expansion enables Champlin to process more grades of crude oil, including high-sulfur oil.

The expansion also gave Corpus Christi the flexibility to produce large quantities of naphtha and gas-oil feedstocks for the ethylene complex under construction nearby.

Ethylene Complex Under Construction—

Champlin and its joint-venture partners—subsidiaries of Imperial Chemical Industries Limited of London and Solvay & Cie of Brussels—began construction of the \$630-million ethylene complex near Corpus Christi. The joint venture was

LEFT—Inlet separators carry out the first step in the processing of natural gas at the recently expanded Carthage, Texas Gas Plant, which has nearly doubled its daily liquid production. Champlin, as operator, holds a 52-percent interest in this plant.

RIGHT—Drilling programs at Baptiste Lake, north of Edmonton, and other areas in Alberta are expected to add significantly to Champlin's production of natural gas.







formed by Champlin (37.5 percent); ICI Americas Inc. (37.5 percent); and Soltex Polymer Corporation (25 percent), a subsidiary of Solvay.

When operating in 1980, the complex will produce 1.2 billion pounds of ethylene a year, plus significant quantities of polymer-grade propylene, benzene and crude butadiene. These petrochemicals are essential ingredients in plastics, synthetic rubber, synthetic fibers, anti-freeze and detergents.

The Corpus Christi joint venture expects that approximately 80 percent of its ethylene production—or nearly one-billion pounds—will be sold to its partners, thus minimizing the quantity to be sold in the merchant market. The three partners will consume 200-million pounds of propylene a year, and all of the benzene, gasoline and fuel by-products.

The ethylene complex was designed for maximum operational flexibility. Since it will be able to run entirely on naphtha or entirely on gas-oil or any combination of naphtha and gas-oil, it can use the cheapest feedstocks available. This makes the plant more cost-competitive than other ethylene facilities which can use only one of these feedstocks. The Corpus Christi complex is so designed that it can also vary its output of ethylene, propylene, benzene and butadiene to produce the most profitable slate.

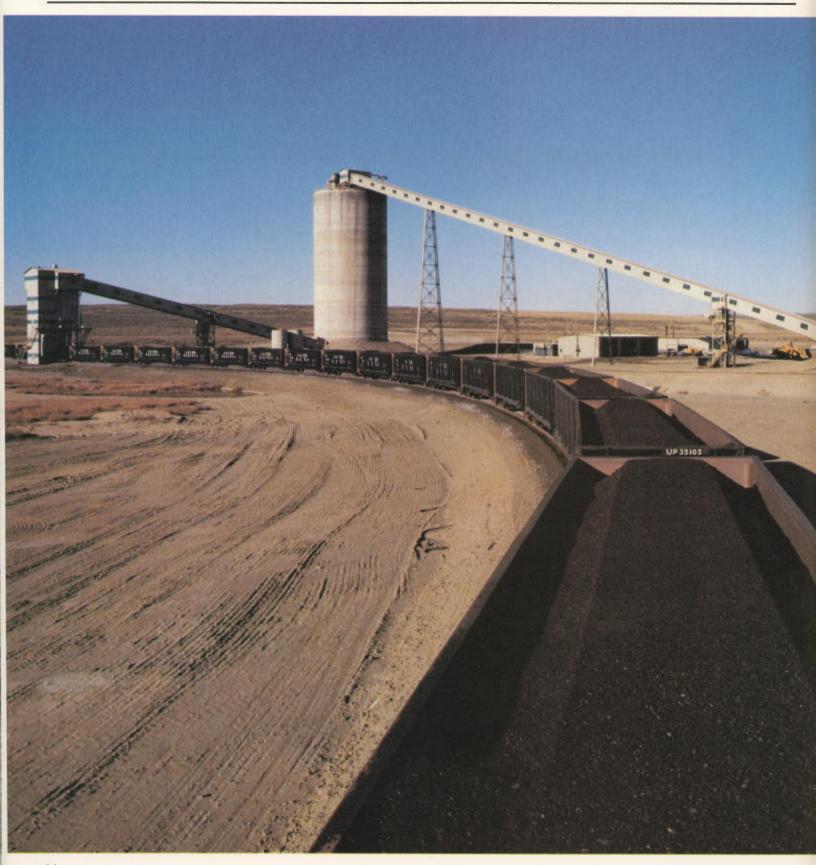
Cumene Project—Champlin plans to invest \$27million to build a 400-million-pound-per-year cumene plant adjacent to the Corpus Christi refinery. A major industrial company has agreed to buy a large portion of the cumene produced by the new Champlin plant, which is expected to be operational by 1980. Raw materials will be supplied by the nearby ethylene complex and by the Corpus Christi refinery. Cumene is a basic ingredient of acetone and phenols, which are used in high-performance engineering plastics, home-building materials, decorative and industrial laminates and nylon.

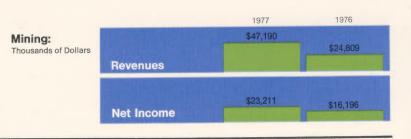
Marketing—More than 75 percent of the company's refinery output is sold through wholesale networks. Champlin's retail business in 18 midcontinental states is handled through more than 1,100 branded service stations and truckstops which market refined products from its Enid, Oklahoma refinery. Much firmer mid-year prices in the Mid-Continent Area, coupled with a slight increase in refinery throughput and a corresponding increase in sales volume, more than doubled the Enid refinery's 1977 operating income. The company is converting some stations to self-service to meet growing consumer preference for this type of marketing outlet.

Construction is well under way at the \$630-million ioint-venture ethylene plant being built at Corpus Christi, Texas by Champlin and subsidiaries of Imperial Chemical Industries Ltd. and Solvay & Cie. **Photo TOP RIGHT shows** one of the towers under construction in late December. At BOTTOM **RIGHT** is one of the scale models of the complex which is used to design piping, place equipment and train operators. When completed in 1980, this world-scale plant will produce ethylene, propylene, benzene and crude butadiene.

Rocky Mountain Energy Company:

Broadening Development of Coal, Uranium and Soda Ash





Rocky Mountain Energy launched the Corporation into uranium production in mid-1977 and continued to develop Union Pacific's large deposits of coal and trona (natural soda ash) during the year.

The Company registered a 43-percent increase in net income from \$16.2 million in 1976 to \$23.2 million in 1977. From 1974 through 1977, Rocky Mountain Energy's net income increased more than five-fold from the 1974 level of \$4.0 million. RME's revenues were \$47.2 million in 1977 compared with \$24.8 million in 1976.

The major highlights of Rocky Mountain Energy's successful year were:

• Start-up of Bear Creek, Union Pacific's first uranium mine-and-mill complex, northeast of Casper, Wyoming;

 Commencement of the Prospect Point coalhandling and loading operation in southwestern Wyoming;

• A 33-percent increase in soda ash production from Union Pacific lands.

Uranium Complex Launched—In September, Rocky Mountain Energy began operating the Bear Creek uranium mine-and-mill complex. This joint venture with Mono Power Company, a subsidiary of Southern California Edison Company, has already contributed significantly to improved earnings.

Bear Creek is the first uranium mill in the United States to use a new type of thickener circuit for processing uranium ore. These smaller-than-conventional thickeners are installed inside the mill building to conserve energy by reducing heat loss and to facilitate maintenance and operator attention.

OPPOSITE PAGE—This 170-foot-tall silo at RME's new Prospect Point facility holds approximately 12,500 tons of coal. In three-and-one-half hours, over 10,000 tons are loaded into a Union Pacific Railroad unit train destined for Commonwealth Edison's plant at Joliet, Illinois.

RIGHT—Production of lowsulfur western coal has increased steadily in response to U.S. energy requirements. In 1977, 9.5million tons were mined from lands in which RME has an interest. While the mill has a design capacity for processing 1,000 tons of uranium ore a day, it has already demonstrated the ability to process an additional 25 percent or more for present and future customers.

The mill's output has been contracted to Southern California Edison and to San Diego Gas and Electric Company.

Under a multi-million-dollar program with Mono Power Company, Rocky Mountain Energy is engaged in a nationwide exploration effort involving regional reconnaissance, property acquisition and exploration activities designed to bring additional uranium properties into development as early as possible. Preliminary economic and environmental studies are being conducted on several projects.

The company has also made progress in its research programs for new methods of mining uranium, which could make it economically feasible to mine less attractive properties by nonconventional means such as hydraulic mining, which may improve the yield from ore-bearing sands, and in-situ leaching.

This latter technology substitutes underground leaching for conventional mining, ore storage, crushing, grinding, leaching and tailings disposal. The process involves pumping a suitable solution through a series of wells into the mineralized zone to dissolve the uranium. The uranium-bearing solution is then pumped to a surface plant where the uranium is extracted and concentrated. Testing of this technology has yielded encouraging results.

Coal Development Progresses—Doubling the nation's production of coal to 1.2 billion tons by 1985 is one of the major elements of President Carter's energy program. To accomplish this, increased use of low-sulfur western coal must be a centerpiece of national strategy.

Union Pacific has large, mineable reserves of predominantly low-sulfur coal in Wyoming, Colorado and Utah. These deposits are being developed by Rocky Mountain Energy through joint ventures, primarily in Wyoming. In 1977, approximately 9.5-million tons of coal were mined from lands in which RME has an interest, a gain of 18 percent over the 8.0-million tons mined in 1976.



Prospect Point Coal Operation—In mid-August, Rocky Mountain Energy placed its Prospect Point Coal Company in operation, northeast of Rock Springs, Wyoming. This coal processingand-loadout company will purchase 500,000 tons of low-sulfur coal annually for a minimum of 10 years under an agreement with Bridger Coal Company, a subsidiary of Pacific Power and Light Company. This coal is being shipped in unit coal trains by Union Pacific Railroad to Commonwealth Edison Company's plant at Joliet, Illinois.

Joint-Venture Operations—Rocky Mountain Energy has two joint-venture coal mines currently operating in Wyoming:

• Medicine Bow, a surface mine near Hanna, Wyoming, started up in 1975, with RME's partner, Arch Mineral Corporation, as operator. During 1977, Medicine Bow produced 2.8 million tons of low-sulfur coal to fulfill long-term contracts with Kansas Power and Light, Iowa Public Service and Northern Indiana Public Service Companies.

• Stansbury, an underground mine north of Rock Springs, began operations in 1976, with Ideal Basic Industries, Inc. as operator. Despite some operational problems, which are being resolved, Stansbury is meeting its current sales commitments and is producing at approximately 40 percent of its planned capacity of one-million tons of coal annually. This output is being marketed to industrial customers, primarily Ideal Cement.

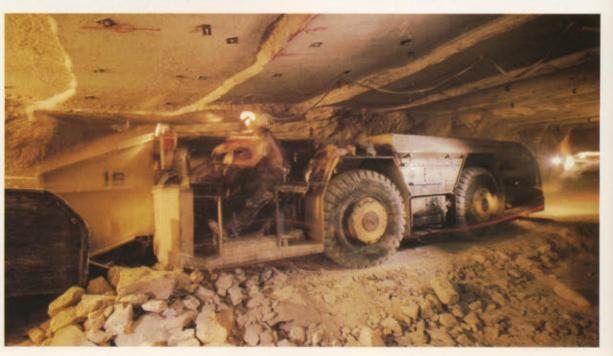
Through 1983, Rocky Mountain Energy plans to bring seven more joint-venture coal mines into operation in southern Wyoming. Only two of these mines will require Federal coal leases, and they are scheduled to start up in 1983. All of these prospective mines will be served by Union Pacific Railroad.

Two of the earliest planned mines are:

• Black Butte, a surface mine near Rock Springs, a joint venture with Peter Kiewit Sons', Inc. which, subject to the timely issuance of a Federal mining permit, is scheduled to be in operation in 1979. At full operation, the mine will produce six-million tons of coal annually for sale to a Midwest utility under a 20-year contract.

• Carbon County Coal Company, a joint venture with Dravo Corporation which will develop an underground mine in southern Wyoming near Hanna. The mine, expected to start up in mid-1979, is scheduled to produce 1.5 million tons a year.

Mine Permits and Regional Environmental Impact Statements—Though five of the seven mines planned through 1983 by RME and its partners already have Federal coal leases, the company is concerned about the delay in the Government's issuance of Environmental Impact



A shuttle unloads ore at Stauffer Chemical Company of Wyoming's underground trona (natural soda ash) mine near Green River. RME owns a 49percent interest in the Stauffer operation, which includes a processing plant.