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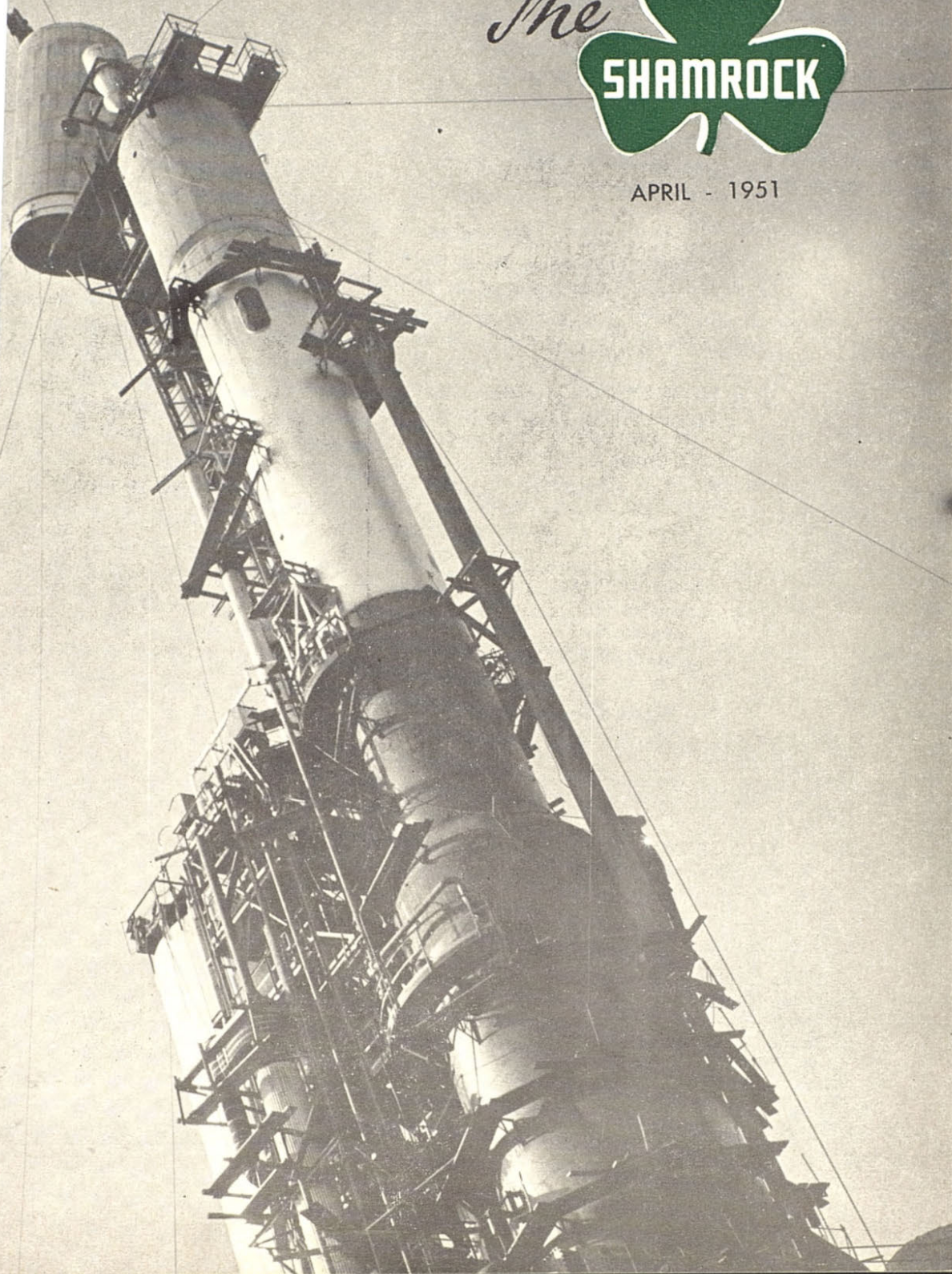
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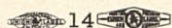
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On the Cover

The cover picture shows the last section of Shamrock's towering new Catalytic Cracking Plant going into place. The new "Cat Cracker" rises 268 feet above the flat Panhandle plains around Shamrock's McKee Refinery in Moore County, Texas. The new unit was completed in February and is now being used in the production of Hi-Octane gasoline components.

New Shamrock Dealers

PATTERSON'S SERVICE

Walter D. Patterson
North Bent Street Las Animas, Colorado

WESTERN OIL CO., STATION NO. 5

J. L. Snider
Third & Hiway 66 Tucumcari, New Mexico

LEWIS SERVICE

R. L. Lewis
Hiway 87 North Lubbock, Texas

BERRYHILL BROTHERS SERVICE

Leon Berryhill
2822 North Eighth St. Lubbock, Texas

SHALLOWATER BUTANE & SERVICE STATION

Jim Ashburn
Hiway 84 Shallowater, Texas

HILL'S SERVICE

Mexico Street Slaton, Texas

SHAMROCK SERVICE

Floyd H. Stafford Evern G. Clingen
Lafayette, Colorado

WESTERN GAS & OIL

Harold Hansen
1000 West Third La Junta, Colorado

FORT'S SERVICE

Harry Fortwangler
2505 Lake Avenue Pueblo, Colorado

MAYHUGH SERVICE STATION

E. W. Mayhugh
509 West Fourth St. Pueblo, Colorado

SWINK GARAGE

Ralph Kenagy Swink, Colorado

CUCHARAS STATION

August Musilli
Tenth & Main Walsenburg, Colorado

STOCK YARDS SERVICE STATION

Sid Carter Ted Dreidenhoffer
Amarillo, Texas

HERRING-ROBERTSON STATION

J. C. Herring C. C. Robertson
Lubbock, Texas

The Story

SOUTHWEST COLLECTION
Texas Tech University
LUBBOCK, TEXAS 79409

Behind

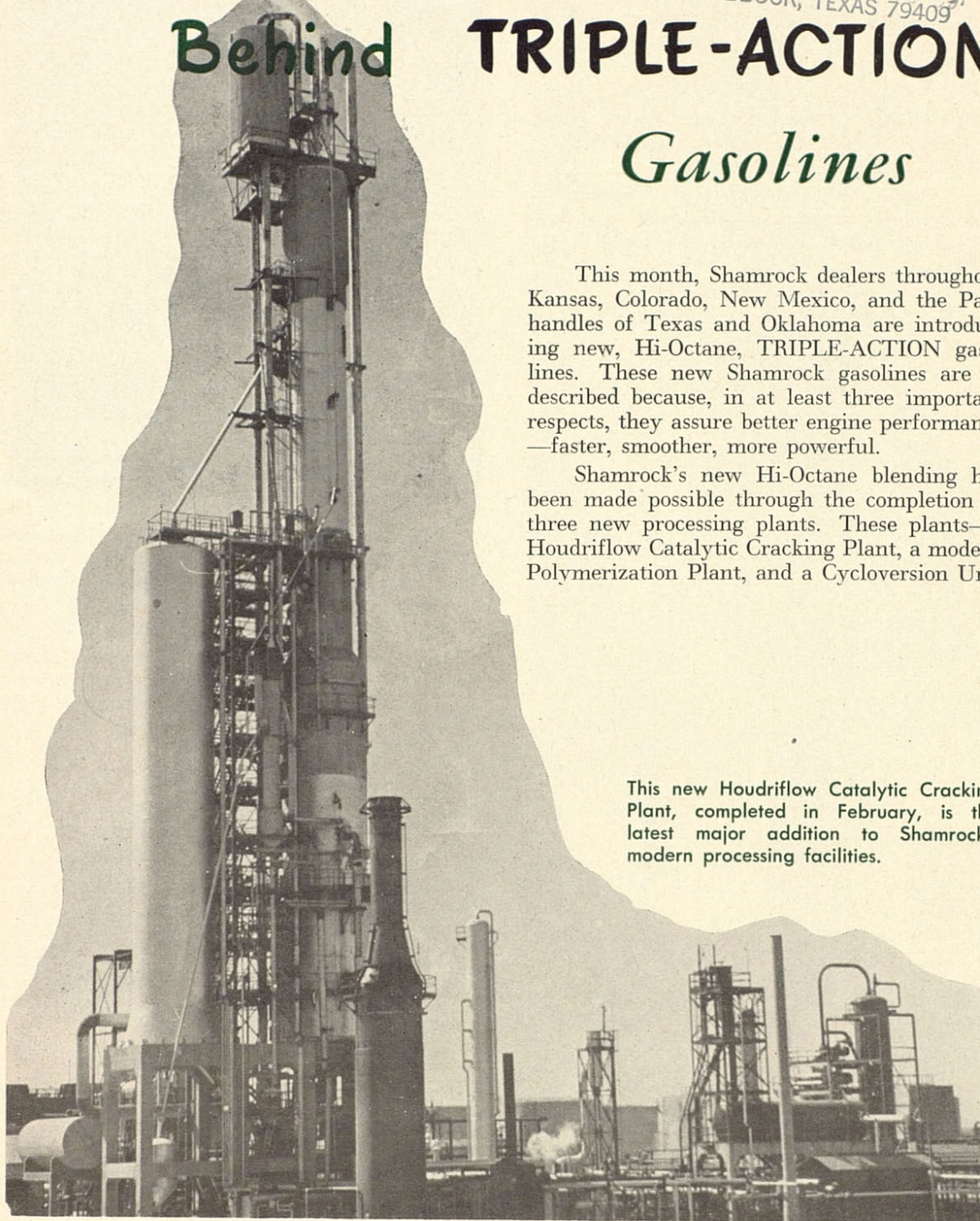
TRIPLE-ACTION

Gasolines

This month, Shamrock dealers throughout Kansas, Colorado, New Mexico, and the Panhandles of Texas and Oklahoma are introducing new, Hi-Octane, TRIPLE-ACTION gasolines. These new Shamrock gasolines are so described because, in at least three important respects, they assure better engine performance—faster, smoother, more powerful.

Shamrock's new Hi-Octane blending has been made possible through the completion of three new processing plants. These plants—a Houdriflow Catalytic Cracking Plant, a modern Polymerization Plant, and a Cycloversion Unit

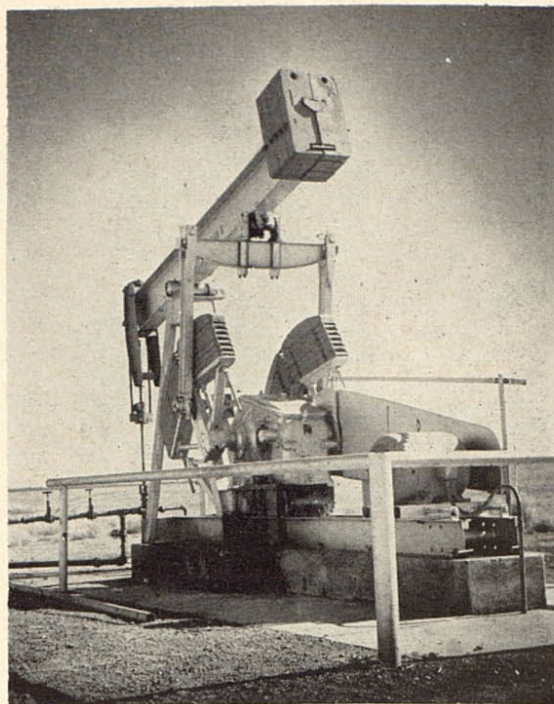
This new Houdriflow Catalytic Cracking Plant, completed in February, is the latest major addition to Shamrock's modern processing facilities.



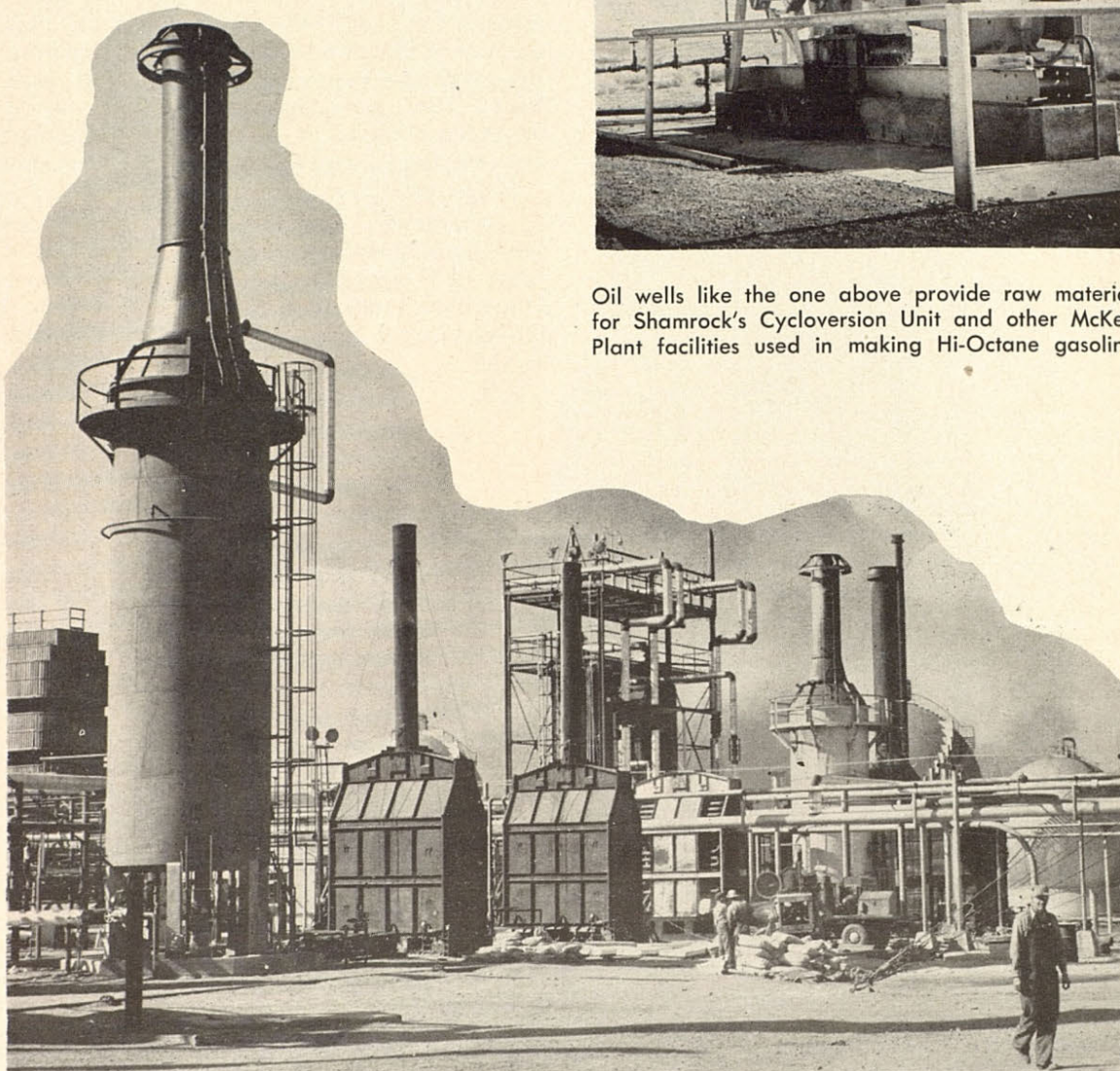
—all utilize the latest catalytic processes and are designed to produce high-octane motor fuel components.

These modern processing facilities are a part of a major refinery expansion program begun in 1949. All three units are located at Shamrock's McKee Plants in Moore County, Texas, 12 miles northeast of Dumas. Other Shamrock facilities in the Moore County industrial area include the McKee Gasoline Plant and the Sunray Gasoline Plant.

Although the better qualities of Shamrock's new gasolines result primarily from operation of the three newest refinery units, all of Sham-



Oil wells like the one above provide raw material for Shamrock's Cycloversion Unit and other McKee Plant facilities used in making Hi-Octane gasoline



rock's processing facilities contribute to overall product quality. Actually, octane rating represents but one of the many qualities necessary for high performance gasolines. Octane number is a comparative measure of the anti-knock characteristics of a motor fuel and is of particular significance with the development of today's higher-compression automobile engines. These modern engines cannot develop their maximum performance unless powered by Hi-Octane motor fuels.

Shamrock's new TRIPLE-ACTION fuels give top performance in any make or model motor. Shamrock's CLOUD MASTER (Ethyl gasoline) is especially blended for modern high compression engines.

Every finished motor fuel is a blend of light, medium, and heavy gasolines. (The terms "light" or "heavy," used in this sense, do not mean that one gasoline weighs more than another, but are chemical terms referring to molecular structures.) The proportions in which these different types of gasolines are blended will determine, to a great extent, the performance characteristics of the finished fuel. Light components vaporize easily and are therefore desirable for quick starting. But the quantity of light fractions in the blend must be carefully controlled according to rigid laboratory specifications to prevent vapor locking, particularly in warm weather. In blending finished motor fuels, Shamrock varies the quantity of these light fractions from season to season to maintain consistent quick-starting performance in all kinds of weather.

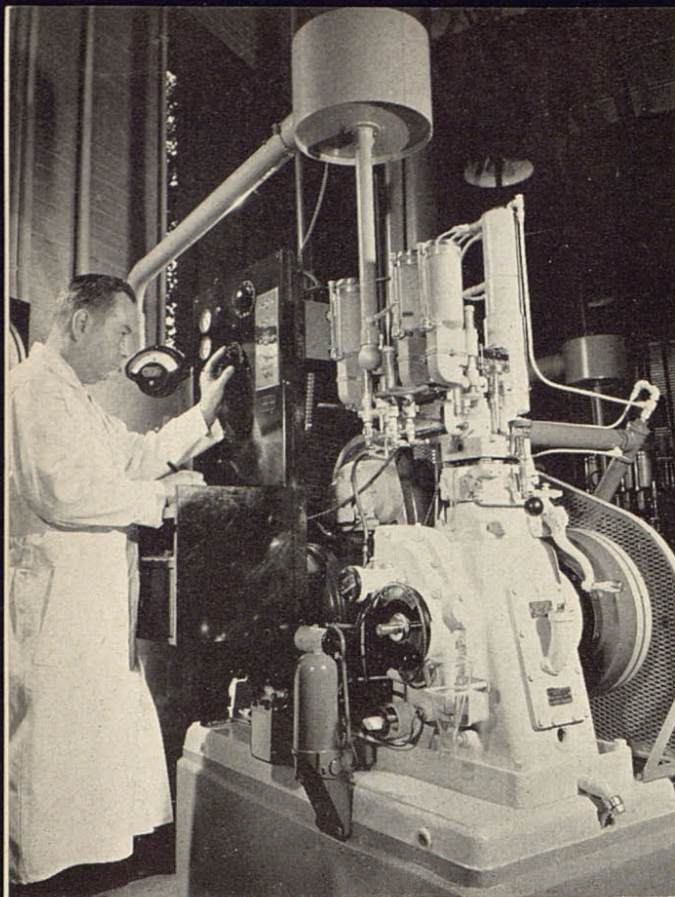
Hi-Octane heavy components are blended into Shamrock's finished gasolines to provide the anti-knock qualities which result in maximum smoothness, power, and mileage. It is to increase the capacity of the McKee Refinery in producing these Hi-Octane components that Shamrock has installed the Catalytic Cracking Plant, Polymerization Plant, and Cycloversion Unit.

At Shamrock's McKee Refinery and Gasoline Plant, these light, medium and heavy gasoline fractions are produced by several different processes. Light fractions are processed from the natural gasoline present in both crude oil and natural gas. Medium and heavy gasolines are products of various refinery distillation, thermal cracking, and catalytic cracking processes.



Polymerization Plant, completed last year, is used in the production of Hi-Octane gasolines

In the production of finished motor fuels, Shamrock blends these light, medium and heavy fractions together according to rigid performance specifications. Shamrock's new TRIPLE-ACTION gasolines are not only Hi-Octane motor fuels, they are also carefully blended to provide many other superior characteristics. The driver who fills the tank of his car, truck, or tractor with Shamrock's CLOUD MASTER or TRAIL MASTER gasoline is getting a motor fuel especially blended for such qualities as fast starting, quick warm-up, smooth operation, clean burning, more power, and fast pick-up—all of which adds up to top performance and economical operation.



Special test engine is part of laboratory equipment used to determine octane ratings

McKee Plant Laboratory

*Modern testing facilities
assure rigid control of
motor fuel specifications*

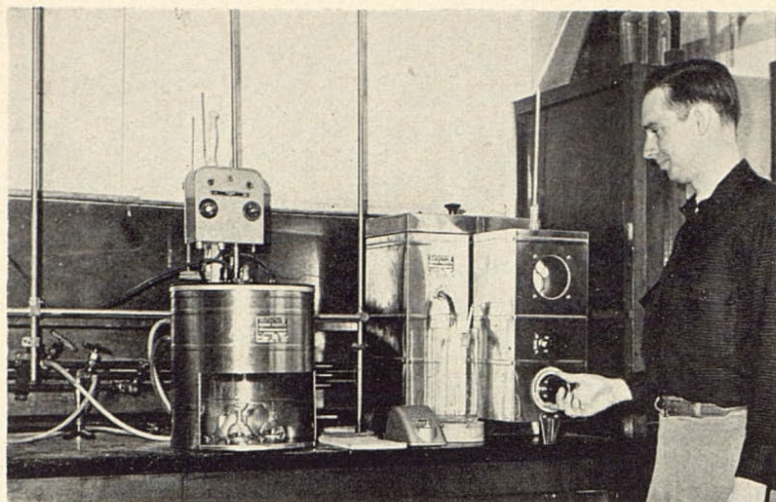
Customers of the many Shamrock dealers throughout the Southwest have learned to expect high standards of quality from the motor fuel they buy. To make certain of the satisfaction of these customers in its products, Shamrock maintains modern laboratory facilities at its McKee Refinery and Gasoline Plant in the Texas Panhandle.

An important part of Shamrock's processing operations, the McKee Plant laboratory performs constant checks and tests, not only on finished products, but also on the various components which go into the finished products. These tests are designed to assure Shamrock customers that the motor fuel they buy will be superior in quality in every respect.

Tests which are performed at the McKee laboratory on gasolines and gasoline blending components include analyses to determine octane rating, gum content, vapor pressure, gravity, and freedom from impurities. Each of these tests, as well as many others, checks for a specific quality of the gasoline. No single charac-

teristic—such as octane rating, vapor pressure, or absence of impurities—is, by itself, an accurate measure of gasoline quality. It is the combined effect of all these characteristics that determines the quality of the gasoline.

One of the most important laboratory tests performed on Shamrock's gasolines is that used to check octane ratings. This test is made by comparing the knock characteristics of a sample of gasoline with the knock characteristics of a reference fuel made up of a mixture of iso-octane and normal heptane. The octane number of 100 is arbitrarily assigned to iso-octane, while normal heptane is given a zero octane value. The percentage of iso-octane in a particular reference fuel is designated as the octane number of a sample of gasoline which has exactly the same knock intensity as that reference fuel. For example, 88-octane gasoline means that under standard conditions, a mixture of 88 per cent iso-octane and 12 per cent normal heptane will have exactly the same anti-knock characteristics.



Such devices as this laboratory distillation unit aid technicians in controlling quality of finished motor fuels.

The method used in the laboratory for determining octane numbers of gasolines and gasoline fractions involves the use of a special gasoline engine. In establishing octane ratings, the anti-knock characteristics of test samples of gasoline are compared to those of reference fuels of known octane number in this engine.

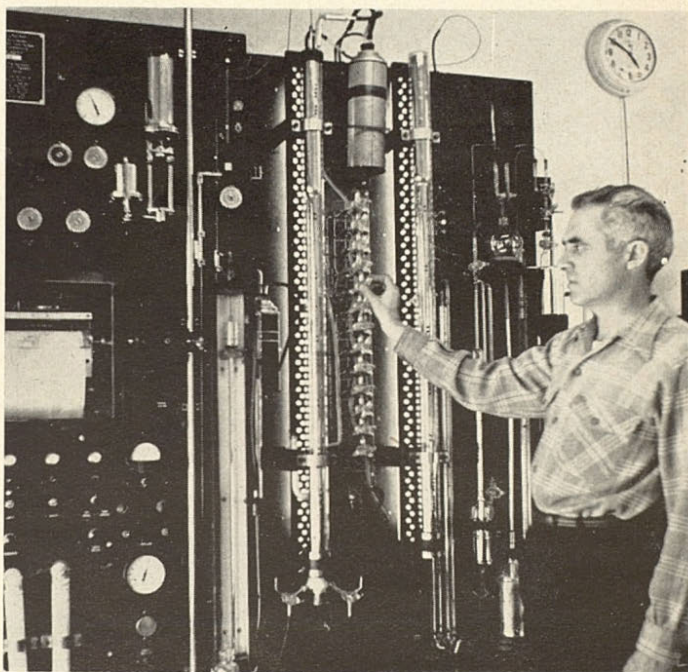
Another test performed on gasoline and gasoline fractions at the McKee laboratory is one made to determine the vapor pressure under standard conditions. Information gained from this vapor pressure test aids in determining the correct blend for exactly the right vaporization characteristics. Fuels which vaporize easily are necessary for quick starting. If the gasoline vaporizes too easily, though, there is greater likelihood of vapor locking. In arriving at correct blending proportions, therefore, laboratory technicians use as much gasoline with high vaporization qualities as possible to produce a finished motor fuel with quick starting qualities, but without vapor locking characteristics.

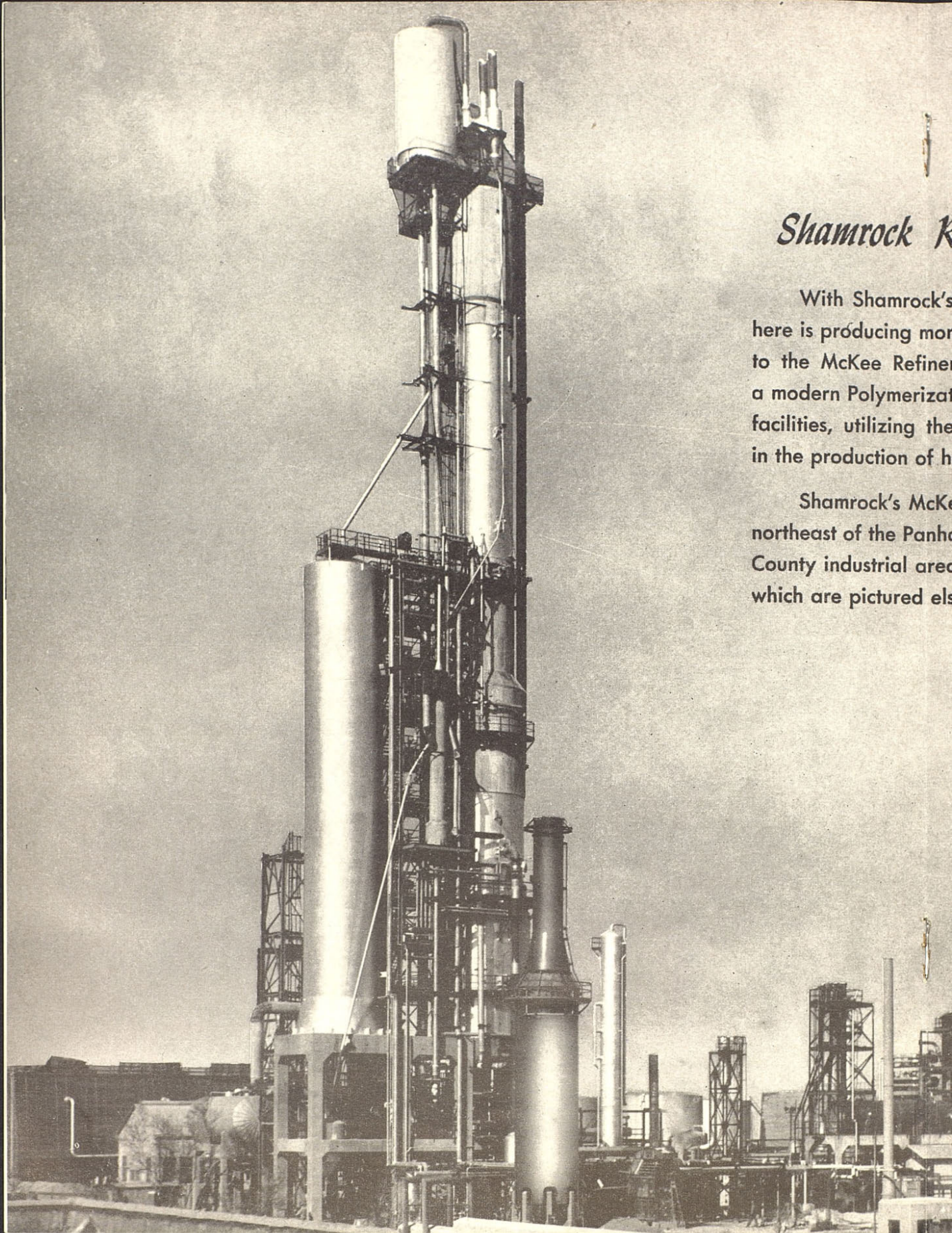
Many other tests are performed on Shamrock's gasolines before they reach the dealer's pumps. These tests and analyses assure that the finished gasoline will be of maximum purity, will burn clean and evenly, and will give the best possible all-around performance.

Another function of the McKee Plant laboratory is to aid plant operating personnel in the precision control of the various refining, treating, and fractionation processes. Careful analyses of raw materials, partially processed

products, and finished products are made at various points in the processing operations. These analyses, called control tests, are made at regular intervals and help to assure that the raw petroleum products entering the Shamrock plants will be processed with maximum efficiency.

This automatic distillation equipment is used in testing natural gas at McKee Gasoline Plant.





Shamrock K

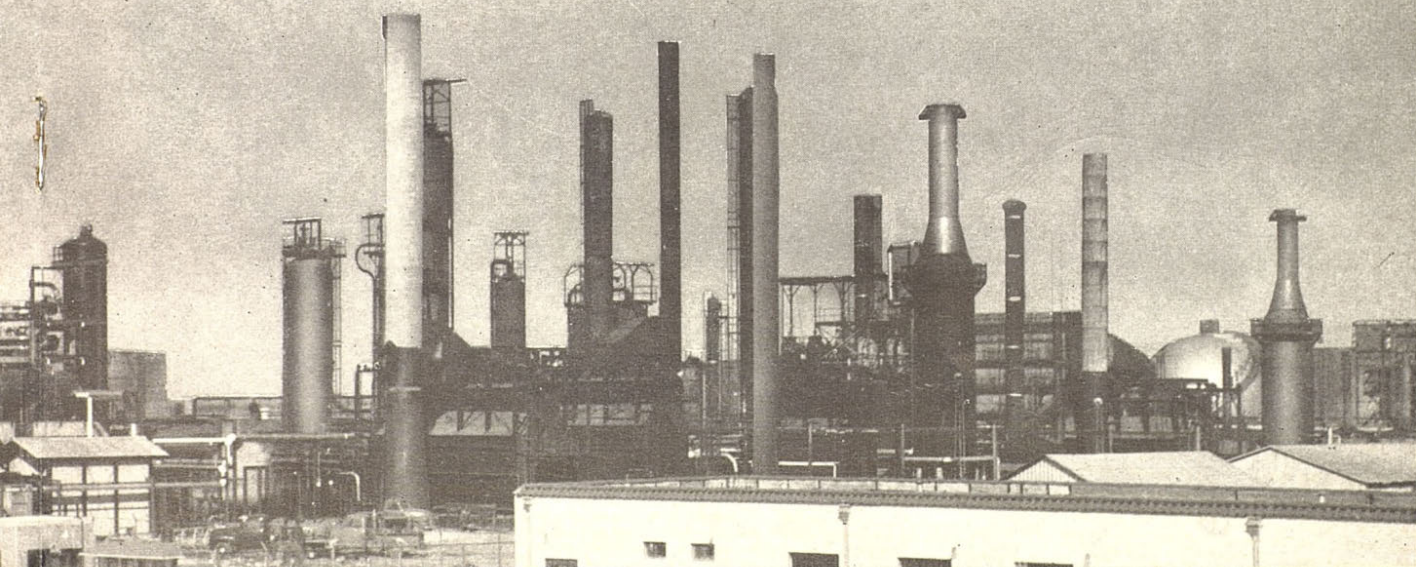
With Shamrock's
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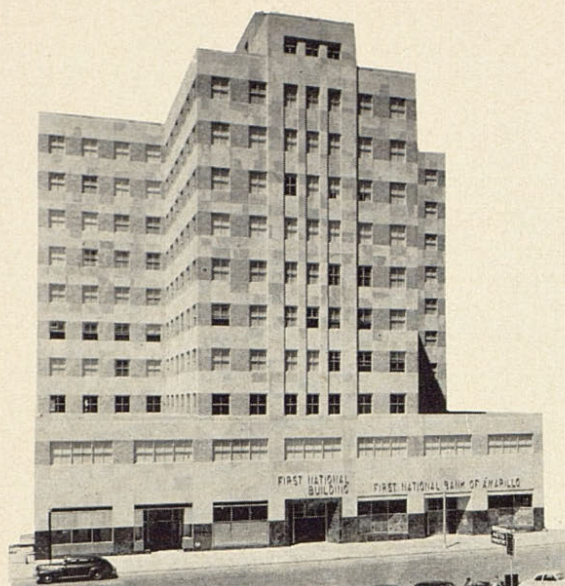
Shamrock's McK
northeast of the Panh
County industrial area
which are pictured els

McKee Refining Facilities in the Texas Panhandle

Shamrock's three new processing units in operation, the McKee Refinery pictured
g more high-quality products than ever before. The three new units added
refinery in recent months are the towering Catalytic Cracking Plant, left;
merization Plant, center; and a Cycloversion Unit, extreme right. These new
g the latest catalytic processes, are designed to increase refinery capacity
n of high octane motor fuel components.

McKee Plant refining facilities are located in Moore County, Texas, 12 miles
Panhandle town of Dumas. Other Shamrock processing plants in the Moore
l area are the McKee Gasoline Plant and the Sunray Gasoline Plant, both of
ed elsewhere in this issue of THE SHAMROCK.





Shamrock's home offices occupy the top three floors of First National Bank Building in Amarillo.

THE FAMILIAR green sign in front of your friendly Shamrock dealer's service station is a symbol of top-notch petroleum products. These fine products, produced by the Shamrock Oil and Gas Corporation of Amarillo, Texas, are the result of more than 21 years of progress in the development of increasingly better and bigger producing, processing, and marketing facilities.

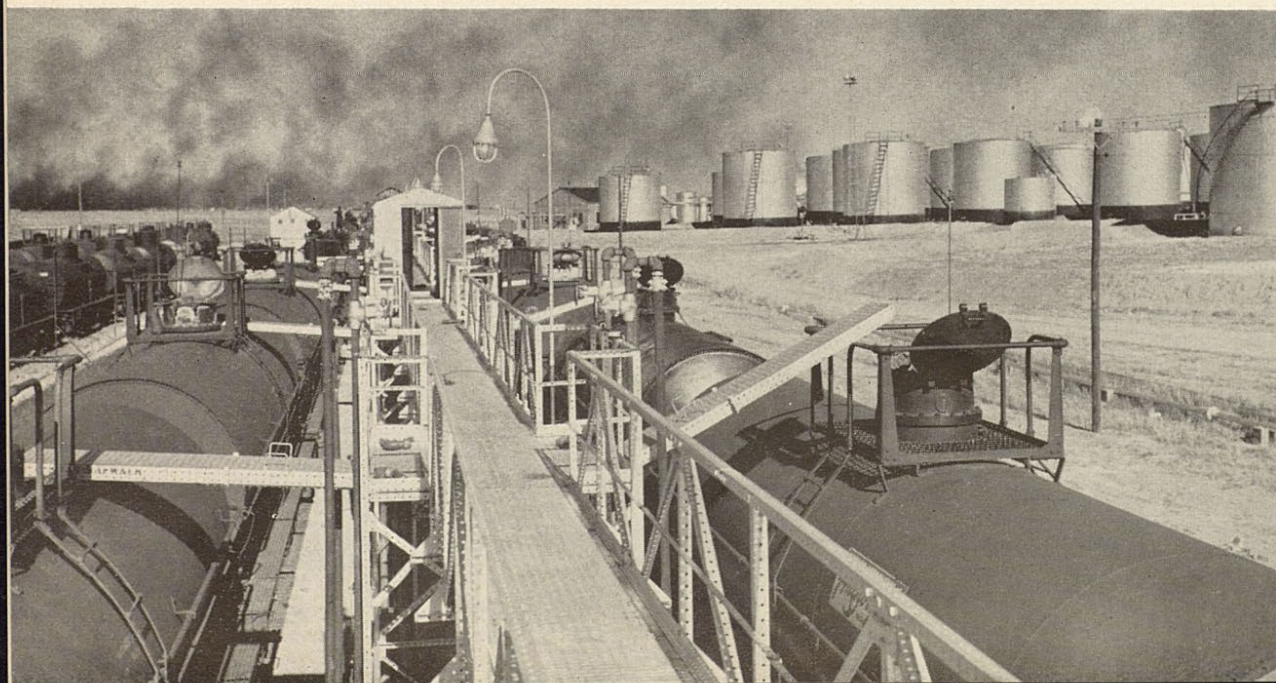
Shamrock first began operations in 1929

About Shamrock

Company's history marked by continued progress in production, processing and marketing of petroleum products

with a few small oil and gas lease holdings in Gray County, Texas. At that time, operating as the Shamrock Oil and Gas Company, the organization employed less than a dozen persons to carry on its limited producing and processing activities. Production activities of the young company consisted of a few oil and gas wells in the vicinity of Lefors, Texas. Crude oil produced from the oil wells was sold to other companies, while natural gas from the gas wells was pro-

Loading tank cars at Shamrock's McKee Plant in Moore County, Texas



cessed in the company's small natural gasoline plant. During those first few years, the company marketed no products under the now-familiar Shamrock brand, but sold crude oil, natural gasoline and natural gas to other companies with more complete processing facilities.

From its modest beginning in 1929, Shamrock has grown into an independent oil and gas company with an investment in plants, property and equipment of more than 36 million dollars. The company now employs approximately 700 persons and is owned by more than 3,700 shareholders located in 46 states, the District of Columbia, Hawaii, Canada, the Republic of Panama, and Peru. Today, Shamrock engages in all three phases of the petroleum business—production, processing, and marketing.

Most of the producing and processing activities are now centered in Moore, Hutchinson, and Sherman counties in the Panhandle of Texas. The company began the development of a number of oil and gas leases in Moore County in 1931. Production in the Moore County area increased rapidly, necessitating the construction in 1933 of a small gasoline plant 12 miles northeast of Dumas, Texas—first of the McKee Plant installations. Although Shamrock still operates oil and gas leases in Gray County, its original processing facilities in that area have been dismantled and processing operations are located primarily in Moore County.

In 1935, the company was refinanced and reorganized under its present corporate name—

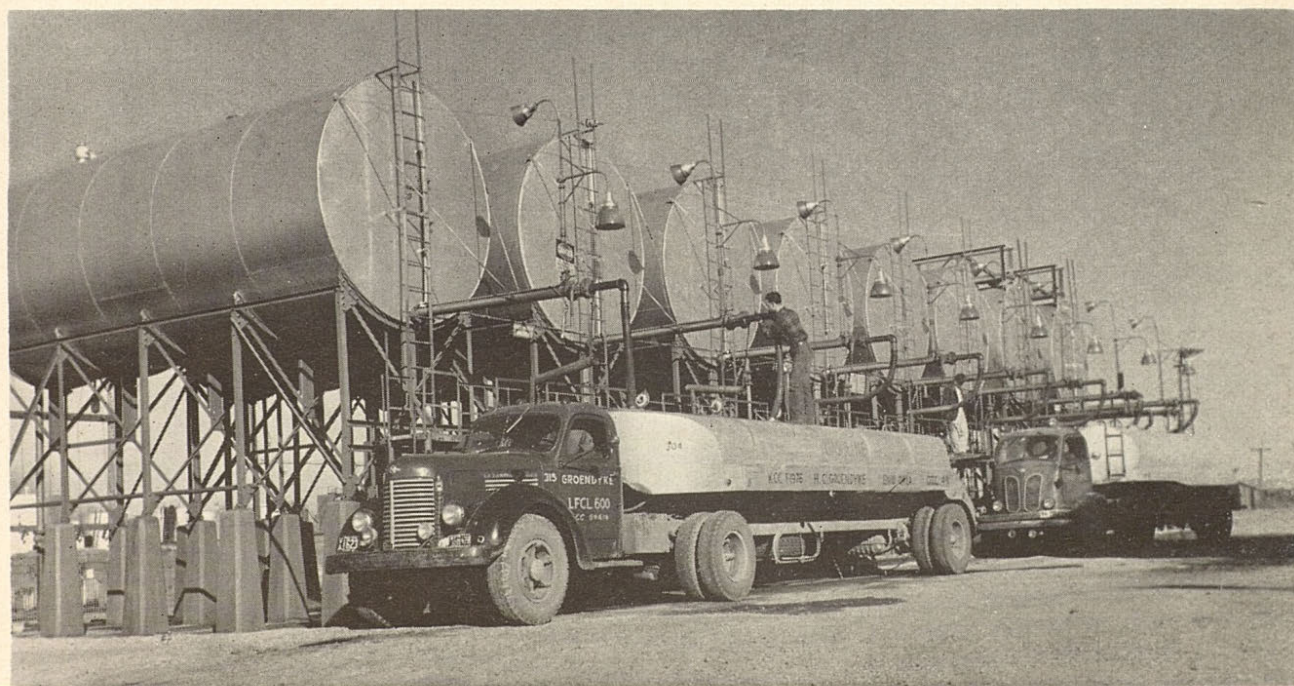
The Shamrock Oil and Gas Corporation. Two years later, a fire destroyed the original McKee Gasoline Plant and a more modern unit was constructed. At about the same time, a crude oil refinery with a daily capacity of 3,000 barrels was completed at the McKee Plant site. With the completion of this refinery and the reconstruction of the McKee Gasoline Plant, the nucleus of Shamrock's present processing facilities was begun.

Shamrock processing plants and other installations now include the 10,000-barrel plus McKee Refinery; the modernized and greatly expanded McKee Gasoline Plant; the Sunray Gasoline plant, a few miles east of the McKee installations; the Denver products pipe line terminal; a joint interest in the Colorado Products Pipe Line and in the La Junta pipe line terminal; and a blending and distribution plant near Liberal, Kansas.

While Shamrock's processing facilities have grown steadily for many years, the greatest period of plant expansion has occurred since the close of World War II. It has been during this period that the Sunray Gasoline Plant was acquired and enlarged and that the Colorado Products Pipe Line, La Junta terminal, Denver terminal, and Liberal Plant were constructed. During this same period, the McKee Gasoline Plant also underwent considerable expansion with the installation of several additional treating and fractionation units.

For the past two years, Shamrock has been

Transport trucks load up with gasoline at McKee Plant Bulk station



engaged in a major refinery expansion program. This refinery expansion includes the installation of three new catalytic processes—Cycloversion unit, Polymerization Plant, and Catalytic Cracking Plant. The purpose of the recent refinery expansion and improvement has been to increase facilities for production of Hi-Octane gasoline components.

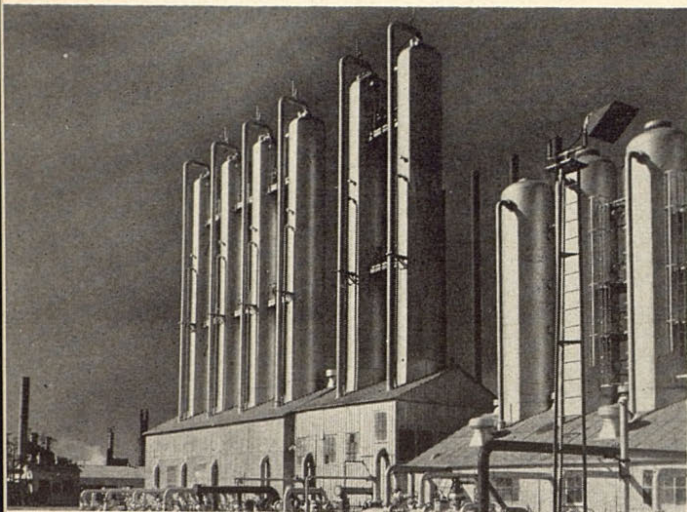
Still another important addition to Shamrock's McKee Plants is the installation of a sulphur recovery plant, now nearing completion. This plant, one of the first of its kind in Texas,

will recover pure sulphur from hydrogen sulfide gas. Hydrogen sulfide gas is obtained from the processing of natural gas at the McKee Gasoline Plant. The sulphur recovered in this manner is more pure than the mined product and has many industrial uses. The new McKee Plant unit will recover about 30 tons of this high-grade sulphur daily.

To keep these growing processing facilities supplied with crude oil and natural gas, Shamrock has engaged in a continuous program of exploration and lease development. While most of the company's production is located in the area comprising Moore, Sherman, and Hutchinson Counties, exploration carried on by the company has resulted in the development of production in other areas in Texas.

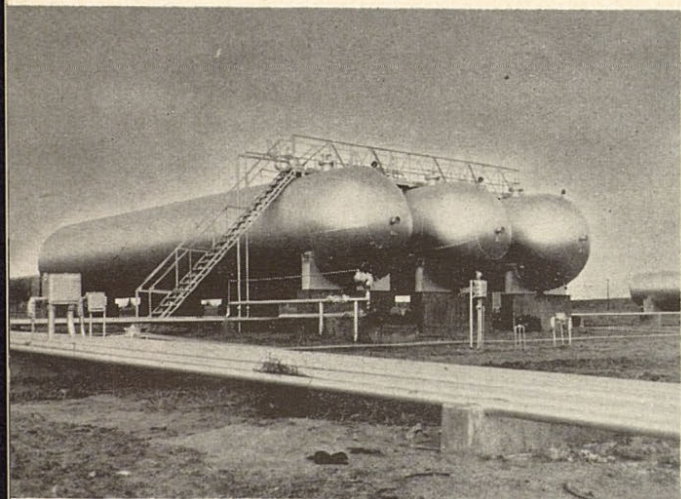
After the construction of the McKee Refinery in 1937, Shamrock began for the first time to market gasolines, motor oils, and lubricants through a system of branded dealers. This marketing system has continued to grow until there are now more than 30 of these branded Shamrock dealers serving a territory consisting of the Panhandles of Texas and Oklahoma, western Kansas, and parts of Colorado and New Mexico.

In addition to the sale of motor fuels, motor oils, and lubricants, Shamrock also sells large quantities of liquefied petroleum gases— butane, propane and others—as well as substantial amounts of natural gas. Liquefied petroleum gases are marketed by distributors in

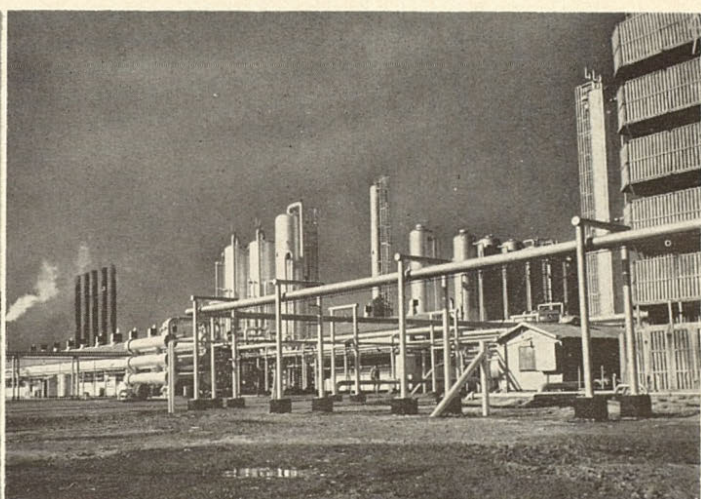


McKee Gasoline Plant

High pressure storage tanks at Liberal Plant



Sunray Gasoline Plant



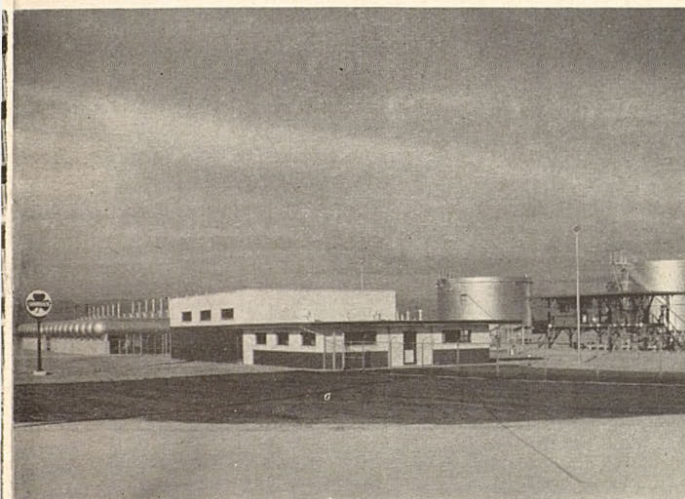
many parts of the United States. Shamrock's natural gas, after natural gasoline and liquefied petroleum gases have been extracted, is sold to pipe line transmission companies who transport it to cities and industrial areas in various parts of the country. Substantial amounts of natural gas are also sold to carbon black plants, public utility companies, and other industrial users in the vicinity of the McKee Plants.

Shamrock's home offices are located in the new First National Bank Building in Amarillo, Texas. The company occupies the top three floors of the new structure and employs about 100 persons in these offices.

Administration of the Shamrock Oil and Gas Corporation is headed by J. H. Dunn. Mr. Dunn has been Shamrock's President since December 10, 1945, and has been associated with the company since 1938. Other officers in the organization are Ray C. Johnson, Vice President and General Counsel; Harry Wheeldon, Vice President in Charge of Operations; F. V. Wallace, Secretary; and B. E. Tyler, Jr., Treasurer.

Throughout its almost 22 years of successful operation in the Southwest, Shamrock has continued to grow and expand. The company is grateful to the many customers and friends who have played a vital part in this growth through their confidence in the Shamrock brand and in the products and organization of which that brand is a symbol.

Denver Pipe Line Terminal



Special Engineering Services Provided by Shamrock Salesmen

To aid in serving customers throughout its marketing area, Shamrock employs a force of



Swank

trained sales representatives. For these men, the job of marketing Shamrock's petroleum products is more than selling gasoline and motor oil—it is assisting customers, dealers, and distributors in solving special problems involving the transportation, storage, and use of petroleum products.

Typical of the specialized technical services performed by these sales representatives is the work of Vernon A. Swank, Lubrication Engineer. Swank's services are available to industrial plants, drilling contractors, farm operators, dealers and others within the territory who need assistance in working out special lubrication problems.

Swank has been engaged in the business of marketing petroleum products since 1918. During most of that time, he has specialized in the field of industrial lubrication. His many years of practical experience, together with thorough training in product testing and refining, have made him well-qualified for his job. He has been employed by Shamrock as a special sales representative since 1948. Prior to that time he had been employed by the Sinclair Refining Company of Fort Worth, Texas, (1932 to 1948) and for the Texas and Pacific Coal and Oil Company of Fort Worth (1927 to 1932).

In the performance of his duties as a lubrication engineer, Swank studies special problems involved in the lubrication of industrial, mechanical, and automotive equipment and makes recommendations to the owners or operators of this equipment as to proper lubrication specifications. These duties may vary from the problem of determining exactly the right weight and grade of motor oil for a drilling rig engine to the task of recommending complete lubrication specifications for a municipal power plant.

Shamrock Days...

... in Plainview and Amarillo
mark formal opening of four
new Super Service Stations

"Shamrock Days" in Amarillo and Plainview marked the formal openings last month of four new super service stations in the Texas Panhandle. Three of these new stations are in Amarillo and one is in Plainview.

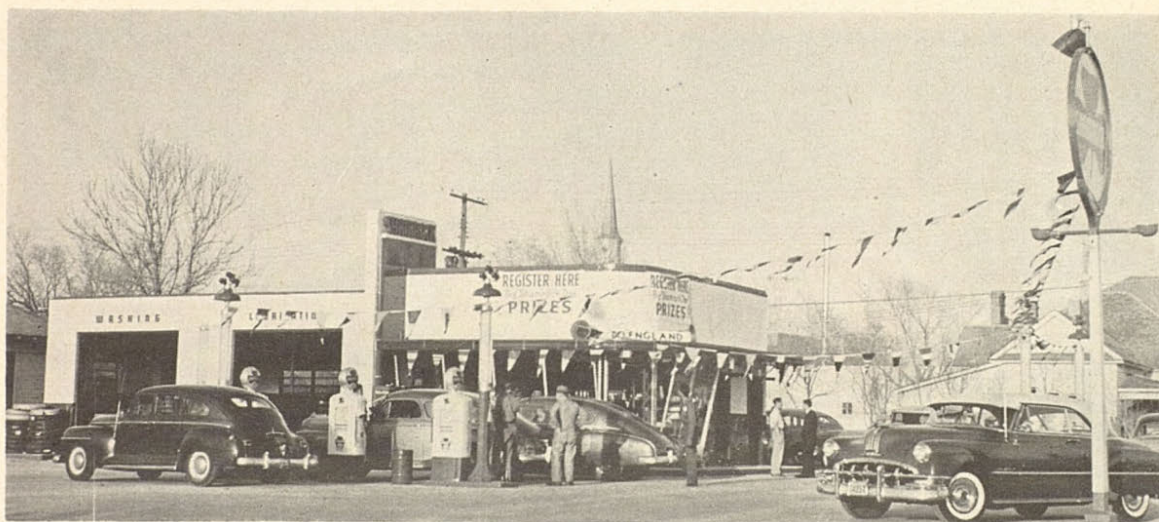
The four new Shamrock-built stations incorporate the latest features in modern service station design and are similar in appearance and construction to the striking new super service station completed last August at Sixth and Maryland streets in Amarillo.

Several thousand persons visited the new



Winner of the Cocker Spaniel puppy, Mr. Shamrock, at the Shamrock Day celebration in Plainview was 4-year-old Randy Kidd.

Bo's Shamrock Service, Plainview, Texas



stations during the formal openings to register for valuable prizes. During the registration, thousands of flowers were presented to feminine visitors, while play money, lucky pennies, and other favors were distributed to the children.

The new Plainview station, Bo's Shamrock Service at Seventh & Columbia in Plainview will be operated by Bo England. The three new Amarillo stations are Ralph's Shamrock Service, Line Avenue & Georgia, operated by Ralph Fowble; T-Bone's Shamrock Service, 36th & Monroe, operated by W. N. Merritt; Martin & Son Shamrock Service, Northeast Eighth & Grand, operated by Quay Martin and J. M. Martin.

The Shamrock Day celebration in Plainview was held March 23-24. Prizes included a Philco refrigerator and a registered Cocker Spaniel puppy. George N. Long of Plainview won the 9-cubic-foot refrigerator, while 4-year-old Randy Kidd, also of Plainview, won "Mr. Shamrock", the puppy.

March 31 was designated Shamrock Day in Amarillo. Prizes given to lucky registrants at the Amarillo celebration included a deluxe



Martin & Son Shamrock Service, N. E. Eighth & Grand, is one of three new Amarillo stations.

model 10-cubic-foot General Electric refrigerator, a cabinet model automatic dishwasher, an automatic washing machine, and a registered Cocker Spaniel puppy. Winner of the refrigerator was William A. Bonner. Billy Hanson won the dishwasher; Louise Baldwin won the automatic washing machine; and Lee Ward won the puppy. All of the winners were of Amarillo.

Left, Shamrock dealer Bo England (back to camera) congratulates George N. Long, Plainview, winner of Philco refrigerator. Below, Joan Leslie Kiger admires Cocker Spaniel puppy before drawing winning tickets at Amarillo Shamrock Day celebration.



ANNOUNCING-

SHAMROCK'S GREAT NEW

Triple-Action

HI-OCTANE GASOLINES



3 WAYS BETTER!

So Fast...So Smooth...So Powerful!

Now Shamrock brings you new, improved, higher octane gasolines with TRIPLE-ACTION qualities that set new standards for performance.

These super gasolines give you not just one or two, but ALL THREE of the important things you want in a motor fuel: high potency for fast warm-up... clean burning for smooth, quiet operation... and dynamic power at the touch of your accelerator!

Such outstanding performance qualities are possible because of engineering advancements at the Shamrock refinery pictured below. Three new refining processes now provide an abundance of high-octane stocks for blending gasolines that are ideal for today's high-compression motors as well as older model cars.

Accept your Shamrock dealer's invitation to stop in today for a thrilling, new driving experience. See for yourself how Shamrock's new TRIPLE-ACTION Hi-Octane gasolines are three ways better!



Get New TRIPLE-ACTION Performance with

- **SHAMROCK TRAIL MASTER** (REGULAR GASOLINE)
- **SHAMROCK CLOUD MASTER** (ETHYL GASOLINE)

THE SHAMROCK OIL AND GAS CORPORATION
AMARILLO, TEXAS

Shamrock's vast refinery expansion program just completed includes a Cat Cracker (left), a Polymerization Unit (center), and a Cyclo-

version Unit (right). Shamrock now has all three of these important facilities for making high-octane gasolines.

