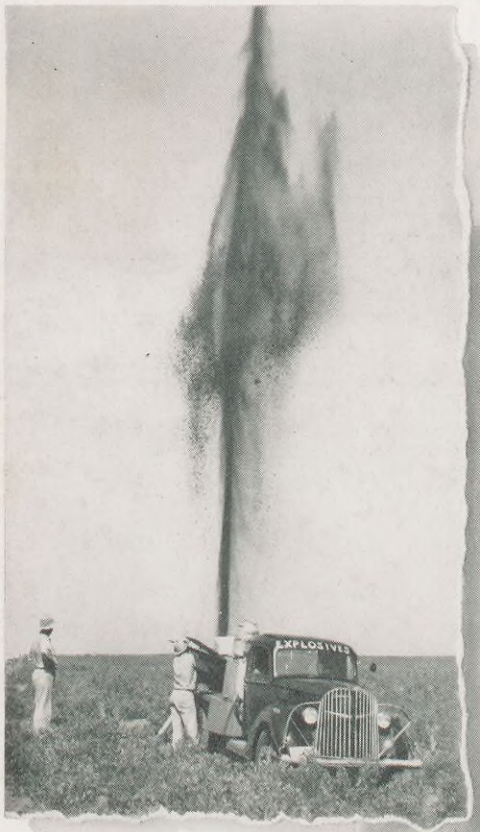
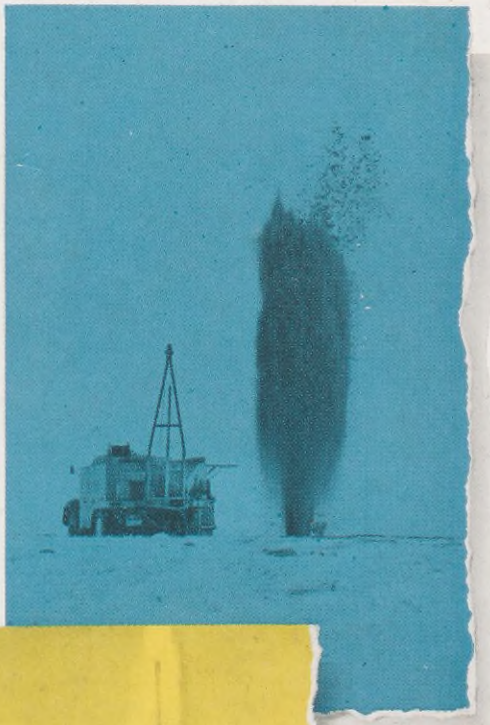
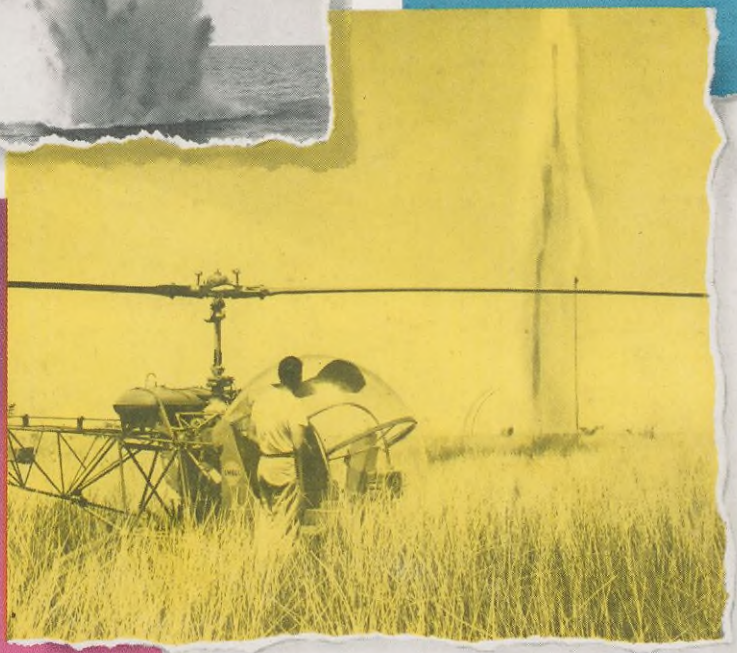
SHELL NEWS







MARCH 1955

NEW ROUTES

Farmers in the Pacific Northwest Will Get More

The first of regular NH_3 shipments hauled by the Ammonia Mariner from Shell Point, California, reaches Shell's Willbridge Terminal. Part will be stored there, part will be shipped inland to Pasco.

SHELL NEWS

VOL. 23—No. 3 MARCH, 1955

Dedicated to the principle that the interests of employees and employer are mutual and inseparable

Employee Communications Department
New York, N. Y.

contents

Published by Shell Oil Company (H. S. M. Burns, President; A. G. Schei, Treasurer; J. A. Horner, Secretary) for its employees and those of Shell Chemical Corporation, Shell Development Company and Shell Pipe Line Corporation. Address communications to Employee Communications Department, Shell Oil Company, 50 W. 50th St., New York 20, N. Y.

EARLY this year, a sleek new sea-going barge called the Ammonia Mariner made its first trip up the Pacific Coast to Portland, Oregon—a journey significant to wheat and sugar beet farmers in the Pacific Northwest as well as to industry.

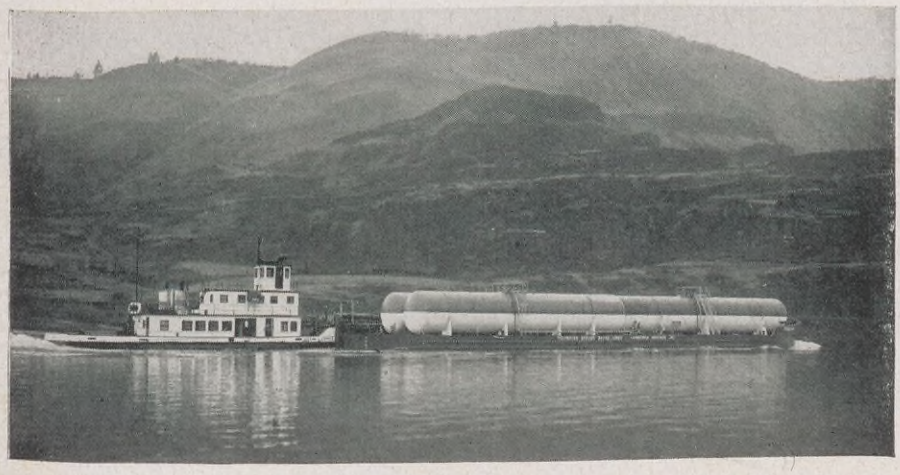
Its cargo was more than 1,600 tons of Shell NH_3, anhydrous ammonia, a kind of plant diet for farmland that puts new punch into run-down or undernourished soil and multiplies crop yields. The Ammonia Mariner's 750-mile run from Shell Chemical Corporation's Ammonia Plant at Shell Point, near Pittsburg, California, was the first of regular deliveries that will bring expanded supplies of Shell NH_3 within easy reach of farmers and industrial users in Washington, Oregon and Idaho.

The 252-foot vessel, owned and operated by Tidewater-Shaver Barge Lines of Portland and towed by one of their sea-going tugs, is a major link in a chain of recently completed transportation and distribution facilities geared to help Shell Chemical's Ammonia Division keep pace with the accelerated demand for Shell NH_3 in the northwest.

Among these facilities are new, enormous capacity storage spheres at Shell Point, at Shell Oil Company's Willbridge Terminal at Portland, and at Pasco, Washington. The latter is located on the Columbia River at the gateway to the inland empire, a vast new area of diversified agriculture—an area including millions of cultivated acres which sprawl across much of southeast Washington and northeast Oregon. There is, in addition, a new Shell NH_3 District Sales Office at Pasco which will oversee the Marketing of anhydrous ammonia throughout the region in which there are two distributors and 40 dealers.

TO ROOTS

Anhydrous Ammonia, Shell Chemical's Wonder-Working Fertilizer



From Portland, ammonia is trans-shipped by the river barge, Ammonia Mariner Junior, above, up the Columbia River to recently completed storage facilities at Pasco, Washington. Since the tug must push the barge, the upper halves of its tanks are painted gray to eliminate glare.

OPEN SEASON

All year 'round, Shell's seismic shooters are out after "big game" in the waters of the Gulf, the plains of West Texas, the Louisiana swamps and the snow blanketed foothills of Montana. The photos on this month's front cover show some of them as they stalked likely places to drill for new oil reserves. A picture story about certain shooting techniques seismic crews use begins on page 18.

Above, C. L. Hedman, Shell Chemical Marketing Engineer, and C. H. Radloff, Shell Oil Company Operations Manager at Portland (pointing), observe the unloading of the Ammonia Mariner at the Willbridge Terminal.

All of this means that the northwest farmer will have ready and dependable sources of Shell NH_3, which is manufactured by Shell Chemical by combining elements of natural gas and air. He will also be able to secure fast attention from a corps of Shell Ammonia Service men trained to assist him in reaping richer harvests from his land by fertilizing with Shell NH_3.

During the last few years, farmers in many Pacific Coast localities have been discovering that their fields, which need vast amounts of nitrogen each year, can get it inexpensively, quickly and in high quantity from Shell NH_3. More than four-fifths of ammonia's weight is nitrogen, a major element of plants and all living matter, and without which plants cannot produce the chlorophyll necessary to their growth.

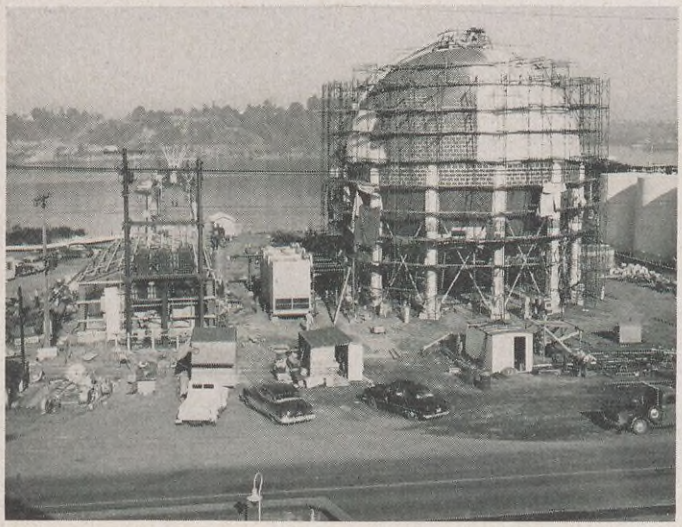
Over the years, farmers have tried to replenish the nitrogen which crops need in several ways. One has been to apply it to the ground in the form of ammonium sulfate, a solid. Another has been to alternate cash crops with leguminous or forage crops such as alfalfa which return nitrogen to the soil. One primary advantage of applying Shell NH_3 rather than rotating crops, however, is that farmers find they can plant paying crops every year without depleting their land.

As a fertilizer, ammonia is only about 25 years old, though the value of its high nitrogen content has long been known. Anhydrous or waterless ammonia is a colorless gas which, under high pressure, turns to a liquid. Both the production and application of anhydrous ammonia as a fertilizer was pioneered by Shell Chemical—by far the biggest producer west of the Rockies today.

In 1932, Shell Chemical began experimenting with NITROGATION SERVICE,® putting ammonia directly into irrigation water. It was found highly effective, and, as special handling and transportation techniques were developed, by 1946 Shell Chemical was fertilizing a half million acres for West Coast farmers.

To adapt Shell NH_3 for use in non-irrigated areas, a method of injecting

The unique Ammonia Mariner, owned and operated by Tidewater-Shaver Barge Lines, shown here at its Beaumont, Texas, launching last November, is the only ocean-going "barge" ever built specifically for shipping anhydrous ammonia. It can carry more than 1,600 tons of Shell NH_3. After final fitting, the barge was towed through the Panama Canal to begin its Pacific Coast shuttle service. The Shell Point to Willbridge trip takes five days.



The new 2,700-ton NH_3 storage sphere at Shell's Willbridge Terminal is shown as it neared completion. The upper portion is made of insulating material to help keep the refrigerated ammonia in liquid form.

Here, the sphere has been covered with a sealing compound and painted white. Both the sphere and its compressor building, to the left of it, are completed. Shell's dock and a tanker are visible in the background.

anhydrous ammonia into the ground, called NITROJECTION SERVICE,® was developed in 1939. In this application, anhydrous ammonia flows from portable supply tanks through a metering system that distributes ammonia to the bottom of cultivation tools traveling six or eight inches beneath the soil surface.

Once released as a liquid through NITROGATION SERVICE or NITROJECTION SERVICE, Shell NH_3 unites chemically with soil particles where it is ready for use in the intricate process of plant growth.

In the Pacific Northwest, where much of the tillable land is non-irrigated, the nitrogen shortage has been especially acute. The rapid growth of wheat areas in the eastern segments of Washington and Oregon quickly depleted the naturally high levels of nitrogen, potash and phosphorous in the soil. To help restore the food-growing potential of this valuable farm land, Shell Chemical introduced Shell NH_3 to the northwest in the late 1940's. Up to that time, fertilization of wheat land had been on a small scale. Limited amounts of ammonia

A Shell NH_3 distributor, inside the tractor cab, applies anhydrous ammonia by NITROJECTION SERVICE to a wheat field in southeastern Washington. The ammonia is ejected from a 1,730-pound tank through tubes connected to the trailing blades of the harrow, seen at far right. The blades penetrate to a depth of six to eight inches. With NITROJECTION SERVICE, NH_3 can be applied months before the planting season with no loss of effectiveness.

in its solid forms had been used with varying success.

Farmers quickly found they could expect greatly increased yields from a relatively small investment in Shell Chemical's NITROJECTION SERVICE. For example, in one test case conducted by a state college, one of the institutions and farm groups working regularly with Shell Chemical to improve and extend the applications of Shell NH_3, unfertilized acreage was found to yield 32 bushels per acre at an overall cost of $2 per bushel to produce. With the application of 30 pounds per acre of Shell NH_3, production rose to 39.7 bushels per acre at a cost of $1.34 per bushel to produce. The net gain amounted to $26 per acre!

What's more, Shell NH_3 has been found convenient to use. It is shipped to farmers in 1,730-pound pressurized tanks or 150-pound pressurized cylinders which can easily be adapted for application by either NITROJECTION or NITROGATION SERVICE. Then, too, farmers can apply Shell NH_3 to the soil by NITROJECTION SERVICE during the late summer and early fall, before the busy planting season begins, with no loss of effectiveness. It is small wonder that Shell NH_3 has become such a boon to wheat farmers in the Pacific Northwest.

More recently, the million and a half acre Columbia River Basin Project has put additional acreage under cultivation, boosting the anhydrous ammonia demand. Centering around water from Grand Coulee Dam on the Columbia River in central Washington, all of the area west of a line between the dam and Pasco far to the south, is expected to be under irrigation by 1960. This is an important sugar beet region. But here, as well as in Washington's Yakima Valley region farther west, there are many diversified-crop farmers using both NITROJECTION and NITROGATION SERVICE to help them produce richer harvests of fruits and vegetables, including potatoes, onions, corn, apples and cherries.

Anhydrous ammonia is metered from 150-pound cylinders, placed alongside irrigation ditches, directly into water by means of Shell's NITROGATION SERVICE. Once released from the cylinders, ammonia, absorbed by the water, is distributed evenly over the field and unites with soil particles.

It was largely to meet this increasing demand for Shell NH_3 in the northwest, an area that seems destined to play an increasingly important role in providing world food supplies, that Shell Chemical planned new transportation and distribution facilities. From Shell Point, where a new 1,735-ton NH_3 refrigerated storage sphere has been completed, the Ammonia Mariner will make regular five-day runs up the Pacific Coast to Portland. Tidewater-Shaver's Ammonia Mariner is the only ocean-going barge ever constructed for the transportation of anhydrous ammonia. Its special high-capacity fittings include tanks that hold a total of 1,685 tons of Shell NH_3. The ammonia is carried under pressure in nine tanks, lying horizontally like a stack of giant sausages, each holding about 200 tons. The vessel's capacity can be increased to 2,000 tons by the use of smaller supplementary deck tanks.

At Shell's Willbridge Terminal in Portland, part of the Ammonia Mariner's cargo will be stored in a new 2,700-ton refrigerated storage sphere. Part will be trans-shipped by pressure tanks on a Tidewater-Shaver river barge to Pasco where two additional 2,700-ton refrigerated storage spheres have been constructed. By refrigerating storage spheres, Shell Chemical is able to reduce the pressure that would otherwise be required to keep anhydrous ammonia in a liquid state. From Pasco and Portland, pressurized railroad tank cars will transport the ammonia fertilizer to markets in Oregon, Washington and Idaho.

Agriculture, however, is not the northwest's only consumer of Shell NH_3. Refrigeration plants are one big industrial market, and there is a growing demand for Shell NH_3 as a raw material in the manufacture of explosives, rayon and other synthetic fibers. It is also utilized in the production of paper from wood pulp, now as always one of the Pacific Northwest's most prosperous industries.

R. C. McCurdy Elected to Shell Oil Company Board

R. C. McCURDY

R. C. McCURDY, President of Shell Chemical Corporation, has been elected to the Board of Directors of Shell Oil Company.

Mr. McCurdy, a native of Newton, Iowa, is a graduate of Stanford University and received a graduate degree in engineering there in 1933. The same year he joined Shell Oil Company as a roustabout at Ventura, California. He later worked in various capacities in most of the Company's California oil fields and was appointed Exploitation Engineer in the Los Angeles Office in 1939. Subsequent assignments took him to other Pacific Coast locations and Washington, D. C. In 1943, he returned to Los Angeles as Chief Exploitation Engineer and two years later was named Manager of the San Joaquin Division. He remained in that position until 1947 when he joined a Shell Group Company in Venezuela, becoming General Manager there in 1950. Mr. McCurdy returned to the United States in 1953 to become President of Shell Chemical Corporation.

In 1954, Mr. McCurdy was elected to the Board of Directors of the Manufacturing Chemists' Association. He is active in a number of other professional and civic organizations.

J. W. Pegg, Shell Development Vice President, Dies

J. W. PEGG

J. W. PEGG, a Vice President of Shell Development Company since 1951, died February 24 while enroute by plane from London to New York. Mr. Pegg joined Shell Oil Company as an Attorney in the St. Louis Office in 1937, after graduating from the University of Missouri with a degree in law. Named Manager of the Legal Department in New York Head Office in 1943, he became Executive Assistant to the Vice President-Marketing in 1945, and in 1948 was appointed Manager of the St. Louis Marketing Division. He joined Shell Development Company in 1949, and was elected Vice President in January of 1951.

Mr. Pegg was well known and highly esteemed throughout the Shell Group of Companies and industry at large because of his frequent liaison between Shell and industry, government agencies and educational institutions in technical and patent matters. On behalf of his many friends, SHELL NEWS extends deepest sympathy to his family.

Joint Wildcat Reopens Old Producing Area

A joint wildcat discovery, made February 10 by Shell and the Humble Oil & Refining Company, has opened new, deeper production in the aging Mexia oil field 50 miles due east of Waco, Texas. Called the Ross HRS No. 1, the discovery flowed 232 barrels of very high quality 50 gravity sweet crude on a preliminary production test.

Aside from the significant fact that the discovery found deeper production underneath an old and depleting shallower field, it is of interest because the production comes from the Smackover formation. The nearest Smackover oil production to date has been 150 miles to the northeast in Arkansas and northern Louisiana except for one well near the Texas-Arkansas line. Shell has considerable acreage under lease in the vicinity of the discovery.

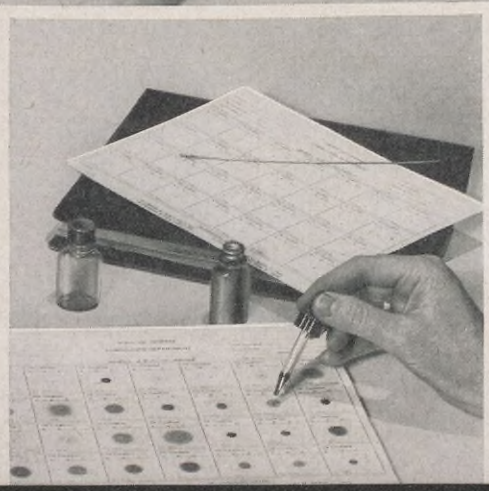
Total depth of the hole is 8,614 feet. It was drilled by Humble, following preliminary seismic work by a Shell Houston Exploration and Production Area crew. The well is producing from 8,565 to 8,576 feet.

The well is also of direct interest to at least one Texas university. Through an assignment of royalty rights by a group of former lease owners, Rice Institute's Athletic Council will receive income from a portion of the production from the discovery well and other wells which may be drilled in the future.

WHAT THE OIL SPOT TELLS

A LOT of unseen, and often unsuspected, activity goes on inside the walls of an automotive engine, much of which is dependent on the motor oil. Since motor oil generally does not lose its inherent ability to lubricate parts and keep them operating smoothly, there probably would never be need for an oil change if that were the only job expected of it.

Eventually, however, motor oil begins to flow sluggishly, so full of dirt and contaminants that it can no longer handle its load effectively. Instead of keeping these harmful materials off metallic surfaces and holding them in suspension, the overworked oil begins to deposit part of its load in the many intricate nooks and crannies through which it flows. This means its cleansing and suspension powers, or *detergency* and *dispersancy*, are gone. Furthermore, motor oils have other properties which also wear out, like the alkaline additive built into Shell premium and heavy-duty motor oils to help them prevent corrosion, the major cause of engine wear. Unless the oil is periodically drained and replaced, a silent, unseen process of deterioration begins in the engine and serious damage often results.



Immediately above, color indicator fluid is put on an oil spot to test additive strength. Charts, like those at left, plot motor oil's "life-cycle."

The problem of when to change motor oil is especially acute in trucks and other heavy-duty, much-used vehicles. The time it takes heavy-duty motor oils in trucks to wear out is not as predictable as it is for those used in passenger cars.

For this reason, Shell's commercial motor oil customers were offered for the first time last month a new and exclusive service called SHELL ADC* OILPRINT ANALYSIS – a fast, simple, field diagnosis of motor oils being used in "fleet-line" vehicles.

Up to now, oil testing had been an involved process of sending samples of used oils to laboratories. By the time results were returned, days or weeks later, expensive engine damage might have already occurred.

Now, by taking "on-the-spot" samples of used motor oils on thin, long-fibre filter paper and applying a chemical color indicator fluid, both designed by Company scientists, Shell "Oilprint" technicians can evaluate in a matter of minutes the condition of a fleetline customer's motor oil. The SHELL ADC OILPRINT ANALYSIS, the result of nearly ten years' work by research staffs in Shell Oil Company's Manufacturing Organization, is available to commercial customers in all Shell Marketing Divisions.

This speedy analysis has three parts. It tests for 1) basicity, one of the X-factors built into Shell Motor Oils to resist corrosion of engine parts; 2) for contamination from soot, dust, motor debris, anti-freeze, water or other materials which cause oils to break down; and 3) for detergency and dispersancy—that is the oil's cleanliness and ability to keep small insoluble particles, like soot, off metallic surfaces and hold them in suspension.

While oil samples themselves are easy to take, accurate readings must be made by a skilled Shell Oilprint analyst. Depending on their condition, oils leave a distinctive pattern on Shell's special filter paper. Under the trained eyes of Shell's Oilprint "detectives," motor oil samples are as revealing as fingerprints. Some samples leave a thick, grimy-looking spot. One may have a fuzzy, lace-like edge, another a distinct but ragged ring. In each case, the expert can speedily identify the properties of the motor oil, determine the degree of contamination and types of contaminants. By adding a drop of color indicator fluid, he can judge how well the additives in the oil are holding up. Often, he also finds clues to latent trouble spots in the engine itself.

The test can be run virtually anywhere in the field. The equipment the Shell expert needs fits in his pocket—squares of special filter paper, a bottle of Shell's exclusive color indicator fluid, and a thin metal rod. With the rod, two separate oil spots are taken. They form identical patterns in the filter paper. One spot gives a permanent record of the oil's condition at the time the test was made and the other is used for testing purposes.

Much of what the expert looks for —like the degree of contamination and dispersancy—is visible immediately. When he adds a spot of color indicator fluid, the components in the oil form a number of spectral colors that enables him to judge how much corrosion-resistance the oil still has. If the motor oil sample fails any part of the test, it's time for a change.

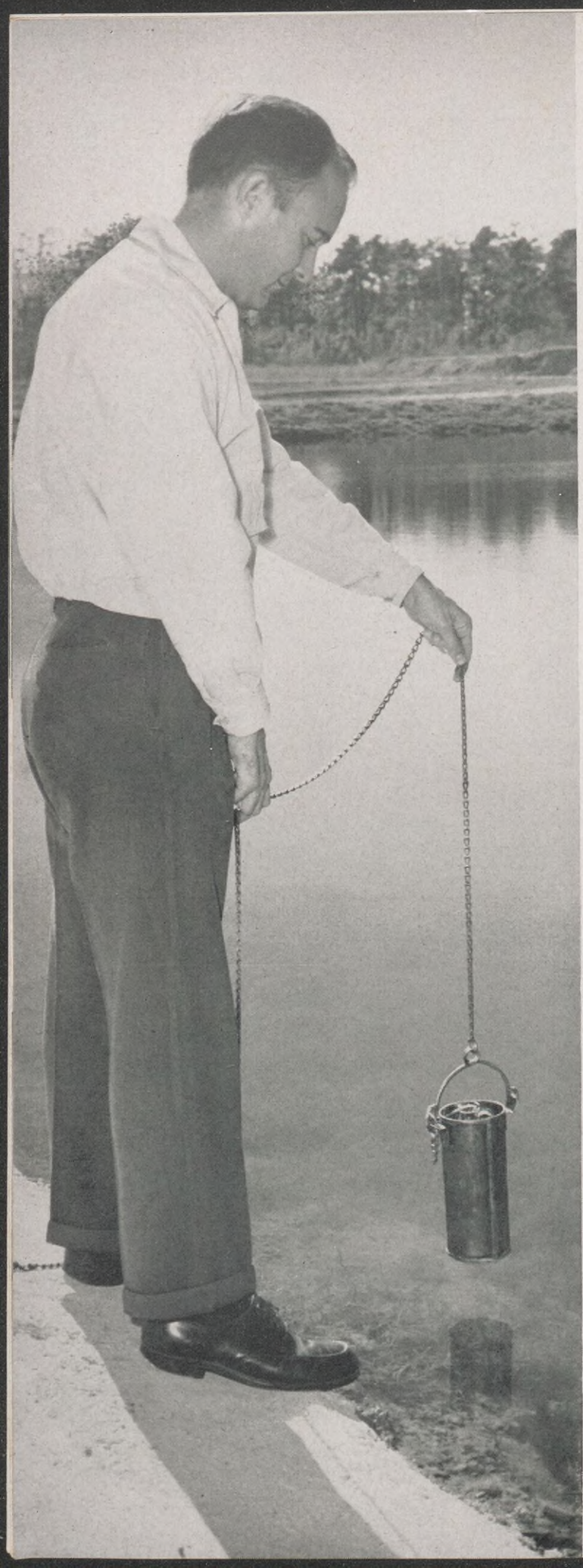
But to check the whole life cycle of a motor oil and enable fleet-line customers to coordinate the SHELL ADC OILPRINT ANALYSIS with regular engine-maintenance programs, Shell provides a further service—the *series* analysis. It might well be called the "medical record" of an automotive engine, since poor engine performance is likely to show up more readily in study of the motor oil being used in it than in a one-shot examination. The oil is analyzed at regular intervals and changed when necessary. For easy comparison, running results are kept on a multi-block chart providing spaces for many "oil spots" and for mileage records and other appropriate data. As long as an engine's oil spots maintain a steady pattern, a fixed oil-change interval can be observed. But, as soon as a Shell Oilprint expert notices that the engine has gone "off pattern," he can warn a customer that the truck is probably in need of maintenance.

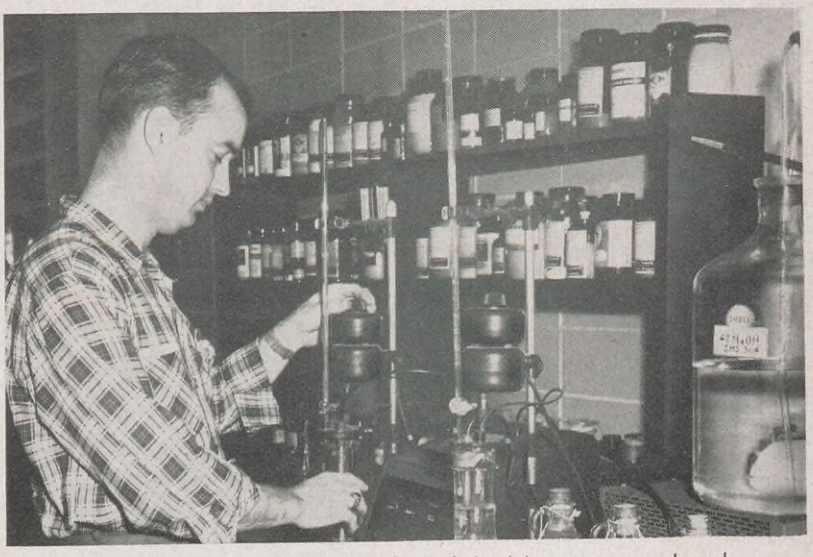
But, because it takes an experienced Shell Oilprint analyst to interpret results accurately and because the test reaches its peak usefulness when the engines involved are operated under conditions which can be closely observed, the SHELL ADC OILPRINT ANALYSIS service is offered only to the Company's fleet-operating customers. They may make individual arrangements for the service through Shell Marketing Divisions.

While it is not an absolute sleuth of every engine fault, this simple, on-the-spot analysis provides a fast and accurate means of answering the questions which most commonly trouble commercial motor oil customers. What's more, it's the first test of its type in the oil industry!

C. E. Evenson, Head Office Representative in Shell Oil Company's Marketing Lubricants Department, adds to a multi-block chart a new sample of motor oil being used in a truck.

* Trade-Mark Shell Oil Company





Effluent Control at the Houston Refinery also includes laboratory research and continuous testing. Above, Chemist B. G. Emerson checks a sample of waste water to determine the amount and nature of impurities. Shell and the rest of the oil industry spend millions of dollars each year to control refinery wastes.

Nature Lends

Technologist R. L. Bryan, left, draws a sample for laboratory analysis from the four-acre pond in which algae are busy purifying the water in nature's own efficient sanitation plant.

Below, Pumper A. P. Jackson rides the mechanical skimmer that literally wipes waste oils off the top of a pit of water.

WITH the oil industry spending millions of dollars annually to control refinery wastes that might pollute public waters, it seems a paradox that one of the best ways to avoid certain kinds of pollution is simply to let nature take its course. There are varieties of tiny marine plants and an assortment of beneficial bacteria which literally devour smelly and harmful contaminants in some refinery wastes, making them sweet and clear again. All the refinery has to do is provide the dining hall and serve up the waste.

This is not to imply that Shell's or any other refineries turn their waste and sewage problems over to nature. The part that nature purifies is only a minor portion of the material—mainly water—which is discharged as waste from a refinery every day. But purification of this relatively small portion by plants and bacteria is done so well that nature matches the efficiency of the intricate and costly equipment handling the major phases of waste purification and control.

Members of Houston's Allied Civic League, above, were shown Shell's effluent control facilities by J. B. Harkness, Refinery Control Laboratory Manager (with bow tie); J. W. Eberman, Chemical Plant Utilities Department Manager (holding hat), and B. E. Norwood, Refinery Effluent Control Department Manager, right.

Above, A. P. Jackson, Pumper in the Refinery Effluent Control Department, operates equipment at an oil and water separating pond as a ship passes nearby on the Houston Ship Channel. Tiny bacteria in the pond consume particles of oil in the water.

A Hand In Effluent Control

Refinery waste control is quite an extensive operation. At Shell's Houston Refinery, for example, the Effluent Control Department operates a wide variety of equipment and facilities for removing objectionable compounds and oils from waters discharged from the refining units and storage tanks. Among other things, the refinery was the first in the Houston area to install "sour water strippers," the units which remove sulfides from water. The purpose of all this activity is mainly to purify the contaminated water so that they won't endanger marine or human life when discharged into the nearby Houston Ship Channel.

A secondary purpose accomplished by effluent control is the salvaging of a great deal of waste oils for processing which otherwise would be lost. All the refinery's oil-water mixture first enters large concrete separator basins for primary separation of oil and solids. The oil rises to the top of the water and is skimmed off. One of the separators is equipped with a huge electrically operated skimming device which moves back and forth across the water's surface like an outsized windshield wiper. After this oil is salvaged, the remaining effluent waters are treated in large earthen ponds which were constructed in the latter part of 1954.

The parts of the Houston Refinery's effluent control facilities where nature lends a hand are in two open ponds covering several acres. In one of these settling ponds, oil-saturated clay, which has been used to filter lubricants in the refinery's lube oil plant, gets a cleaning. The oily clay slurry is mixed with water draw-off from the boiler feed water treaters and the mixture is pumped to this pond to become a banquet menu for hungry bacteria dwelling there. These millions of tiny bacteria literally consume the oil and leave the clay and water clean—so clean that the water can be released into the Ship Channel and the clay can be used as fill material at the refinery. Grass, flowers and shrubs have been successfully grown in it.

The other pond receives the refinery's "sanitary" waste—comparable in many ways to the sewage of a modern city. In the pond, these wastes are attacked by common algae, the tiny water plants often noted as the green scum on ponds and still waters. Like any other plants, the algae give off oxygen and promote oxidation in the pond. Further, they give off a secretion which is fatal to harmful coliform bacteria commonly found in human wastes. The algae clear all odor from the pond and reduce the coliform bacteria to an undetectable level. The water in the pond is so pure that ducks regularly winter there. A continuous flow of purified water is discharged into the Ship Channel.

The new oxidation pond has been so effective that it is being studied by other refineries and industries that now use chemicals to treat sanitary wastes. All of the effluent control facilities at Shell's Houston Refinery and the adjacent Chemical Plant, have drawn favorable comments from visiting Houston civic groups.

Shell People in the News

Shell Oil Company

H. M. BAILEY

H. M. BAILEY has been appointed Manager of the Sacramento Marketing Division to succeed H. W. Stewart, who will retire July 1. Mr. Bailey assumed his new duties on March 1 in order to familiarize himself with Marketing activities in the Sacramento Division before Mr. Stewart's departure. Mr. Bailey, who holds a B.A. degree in economics from the University of California, joined Shell in 1923 at Fresno and served in sales positions at various locations until 1940 when he was named Manager of the Boston Marketing Division. He was named Manager of the Baltimore Division the following year, and Manager of the Albany Division in 1946. In August 1954, Mr. Bailey was appointed Assistant to the General Sales Manager-West Coast, a position he held until his most recent appointment.

J. M. WILSON has been named Assistant Superintendent at the Wilmington Refinery, transferring from a similar position at the Wood River Refinery. Mr. Wilson, who holds B.S. and M.S. degrees in chemical engineering from Missouri School of Mines, joined Shell in 1928 as a Chemist in the Wood River Refinery Experimental Laboratory. He held various technical positions of increasing responsibility at Wood River, St. Louis and Sewaren, N. J., and was appointed Manager of the Products Application Department at Wood River in 1944. Mr. Wilson was named an Assistant Superintendent at Wood River in May of 1947.

J. M. WILSON

A. C. HOGGE, JR.

A. C. HOGGE, JR., has been appointed Assistant Superintendent at the Wood River Refinery to succeed Mr. Wilson. Mr. Hogge, who holds a B.S. degree in chemical engineering from Rice Institute, joined Shell in 1936 as a Junior Analytical Chemist in the Norco Refinery Laboratory. After serving in various positions there, at the Houston Refinery and in Head Office, he was appointed Chemist in Charge of the Experimental Laboratory at the Wood River Refinery in 1944. He was named Chief Research Chemist at the Houston Refinery the following year and was promoted to Research Director at that refinery in 1947. Mr. Hogge was named Chief Technologist of the Wood River Refinery in April of 1953.

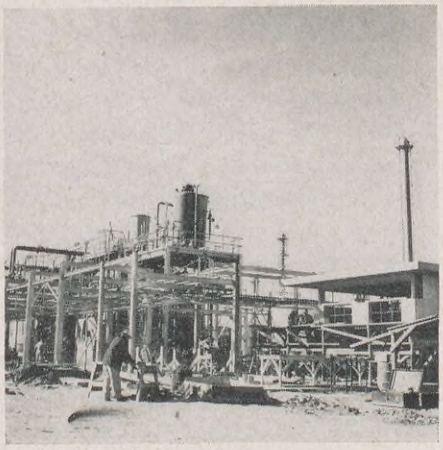
A. J. WOOD has been named Chief Technologist of the Wood River Refinery to succeed Mr. Hogge. Mr. Wood, who holds a B.S. degree in chemical engineering from the University of Illinois, joined Shell in 1938 as a Junior Technical Assistant in the Wood River Refinery Technological Department. He held positions of increasing responsibility in the Technological, Gas and Cracking Departments and was appointed Manager of the Refinery's Gas Department in 1947. Mr. Wood was named Manager of the Alkylation Department at the Wood River Refinery in February of 1953.

A. J. WOOD

R. M. LEYHE

R. M. LEYHE has been named Manager of Fire and Safety at the Wilmington Refinery. Mr. Leyhe, who was educated at the University of California, joined Shell in 1928 and has spent his entire career at the Wilmington Refinery. He began as a Junior Inspector in the Laboratory and advanced to Inspector, Foreman, Technologist and Assistant Department Manager in various Departments of the refinery. Prior to being named Manager of Fire and Safety, Mr. Leyhe had served as Assistant Department Manager, Alkylation since June 1949.

NORCO CHEMICAL PLANT Takes Shape



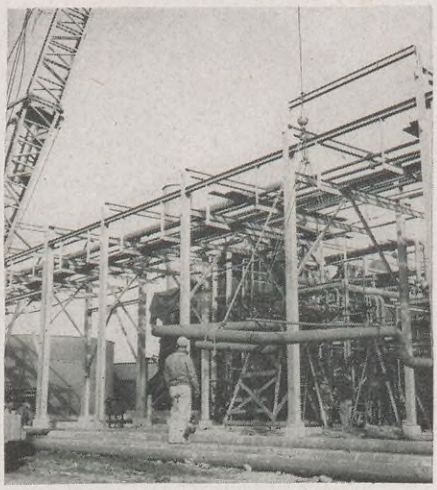
Various phases of the Norco Chemical Plant's construction are shown here as, above, a crane hoists a cone-shaped bottom for the lime storage silo before moving it into place for welding. At left, top photo, a pipeway takes shape near the utilities control house, at right in photo. The top of the plant's boilers can be seen behind the pipeway. Bottom photo shows process towers, one of them 10 stories high. Horizontal tanks in foreground are for chlorine storage.

Shell Chemical Corporation's Newest Facility Will Help Boost the Nation's Supply of Glycerine and EPON Resins

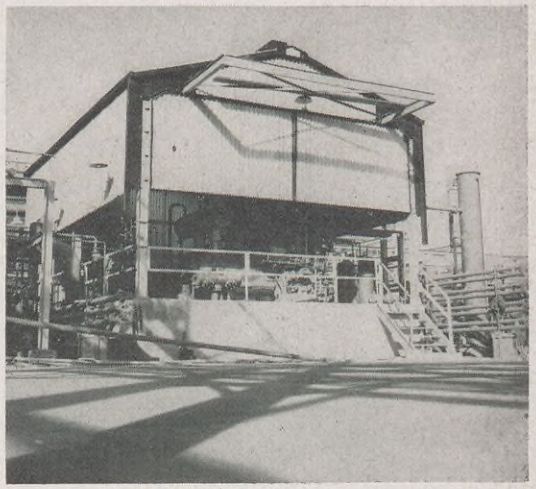
ON a former Louisiana plantation, once devoted to the production of corn and sugar cane, Shell Chemical Corporation's first plant east of the Mississippi River is nearing completion. With feed stock to be provided by Shell Oil Company's adjacent Norco Refinery, the new plant is scheduled to go on stream this spring, producing about 70 tons of chemicals per day.

The major petrochemicals to be produced at the Norco Chemical Plant—

The 492-foot wharf, above, where barges and ships will be loaded and unloaded, provides four levels to allow for rise and fall of the Mississippi River. Pumps to provide water for the plant are housed near the end of the wharf.



A section of pipe is raised into place on a pipeway, above. Virtually all the pipe in the plant will be on pipeways instead of underground. The pipeways, built of galvanized steel, provide at least 20 feet of clearance over all roadways.



The compressor housed under the structure above will provide air for chipping guns and similar plant maintenance equipment, for pressuring chlorine tanks when the chemical is transferred and emergency air for pressure instruments.

allyl chloride and chlorohydrins—are components of a variety of industrial chemicals and products, including glycerine and epoxy resins.

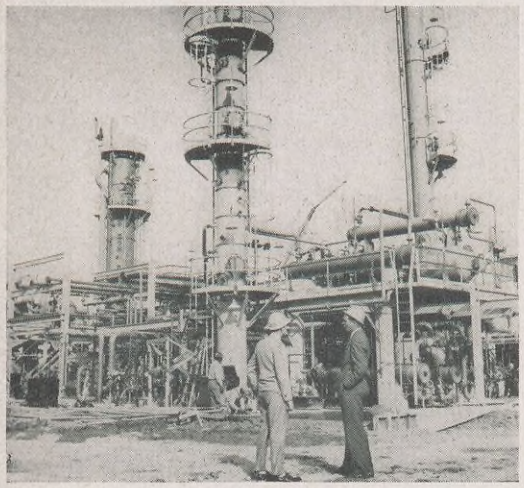
The plant's production will make it possible to boost Shell Chemical's glycerine output by 25 million pounds per year. The Company, which pioneered the production of glycerine from petroleum, will then supply about 25 per cent of the American market, making it the world's largest supplier of this important industrial chemical that goes into the manufacture of such diverse products as paints, soaps, cellophane, cigarettes, toothpaste, cosmetics, and explosives.

The Norco Chemical Plant also will make available substantial additional quantities of epichlorohydrin for the manufacture of EPON® Resins, which are becoming increasingly important in the surface coatings and structural resins fields. In addition, the plant will produce D-D®, Shell Chemical's soil fumigant that effectively combats parasites which damage crops.

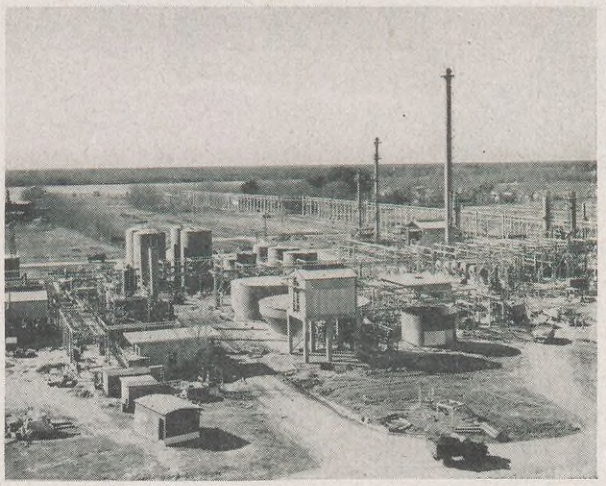
The new plant, which is bounded on one side by the Mississippi River and on another by a railroad, is conveniently located both for receiving and shipping materials. Propylene, a major raw material going into the plant's manufacturing process, will be transported by pipeline from the Norco Refinery, one mile away. The river and railroad will provide facilities for receiving the large quantities of chlorine and lime that also go into the plant's manufacturing process. Likewise, the river and railroad will be used to haul away the plant's products.

Besides the processing area, the new plant will include an administration building, a change house, a shops-warehouse building, a crafts building, and storage tanks of various sizes. The plant also will have its own utilities such as boilers, water treating plant, waste treating plant, utility and instrument air systems, sewage disposal plant, river barge and

This large structure will house the Stores Warehouse and shops. The Plant offices and first aid room are in the one-story section in front of the larger building. The site will be landscaped.



Various vessels in the process area are discussed, above, by W. A. Gabig, Shell Chemical's Process Project Engineer, and Oran L. Wylie, Operations Department Manager at the plant. The plant is scheduled to go on stream this spring.



A large part of the plant is shown in photo above, including the pipeway between the plant and the wharf on the Mississippi River which will carry both products and incoming raw materials. The area immediately behind the elevated building is where water is treated for the plant's boilers, which are across the road, left.

rail car loading facilities.

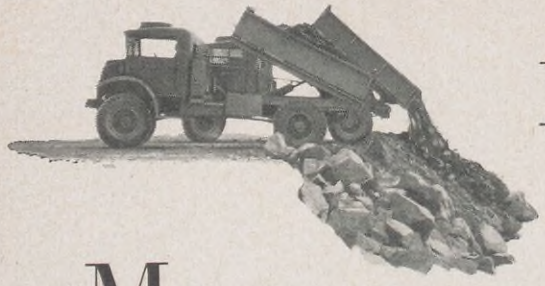
The new plant was designed to allow for future expansion with minimum time and expense. Buildings and utility areas are located on the 127-acre site so that subsequent growth of the processing area will not make their relocation necessary.

An important feature is the absence of water cooling towers, prominent fixtures at most chemical plants. Instead of the familiar slatted tower for cooling water, a 5,000-gallon-per-minute pump will circulate water from the river to condensers in the process area, then directly back into the river.

Water from the Mississippi also will be treated and used in the plant's boilers.

Workmen constructing the plant took particular pains to save many of the fine pecan trees that dot the old plantation site. They will provide shade for some of the buildings and beautify the grounds.

A workman, right, welds a flange on a section of the miles of pipe that are going into the plant's construction. Pecan tree in background is one of many being preserved at the site.



HIGHWAY THROUGH A

A Fabulous Highway Through Some of North

MANY expert observers were confident at the end of World War II that the Alcan or Alaska Highway—a 1,523-mile road hewn out of a wilderness to transport vital military supplies from the United States to Alaska—would soon recede into the boggy muskeg from which a large part of it grew. These observers, like most others who gave the highway any thought, assumed that it was strictly a military expedient, with little or no peacetime future—like its equally famed counterparts, the Burma and Ledo Roads in Asia.

But the observers did not reckon with the enterprise and daring of truckers and motorists in the U. S. and Canada. For the highway, today, is busier than ever before, and in much better condition. Its immediate postwar traffic of about 500 vehicles a month has accelerated to far in excess of 30,000 a month. And the traffic rate is still climbing.

The Alaska Highway—which officially stretches from Dawson Creek, British Columbia, on the south, to Fairbanks, Alaska—is destined to take on even greater importance as oil companies expand the areas of their exploration. Exploration crews find the highway a boon as they range over the countryside around the road's southern end.

In varying degrees, they have explored alongside more than 300 miles of the highway's southernmost route, probing along the highway almost up to the famed Yukon Territory. In the last few years, their efforts have paid off with several gas fields in which Shell has an interest. The fields are in the Peace River district around Fort St. John, British Columbia, a fast growing town at the 49-mile post on the Alaska Highway. In November of last year, British Columbia's first commercial oil discovery was made about 25 miles northeast of Fort St. John. Shell is one of five companies with an interest in it.

With exploration on the upsurge in Alaska also, the highway's importance in the search for oil should mount even more as the need for seismic vehicles and equipment grows. In the last four years oil companies, including Shell, have spent about $6 million dollars on exploration in the sprawling U. S. territory. About one-third of that amount was spent in 1954 alone.

The Alaska Highway was pushed through the northern wilderness in nine hard-driving months of 1942, a crucial period during World War II. More than 11,000 troops from seven U. S. Army engineer regiments and 7,500 civilian workmen were employed on the gigantic all-weather project. Its initial cost was more than $113 million.

With the war over, in 1946 the U. S. government turned over to Canada the 1,221 miles of the highway that lie in that country. Up until spring of 1952, Canada had spent another $26 million on straightening and widening the highway, building additional bridges and otherwise improving it. Since then, maintenance and other improvements have run about $10 million a year, excluding the pay of Canadian Army engineers who were charged with the task. Only recently, the work was turned over to civilian authorities.

The highway has become a central artery for a 6,000-mile network of highways in the Canadian north country, giving many towns and settlements land links for the first time. One of the most important links is a new 227-mile highway between Dawson Creek and Prince George in central British Columbia. Costing about $20 million, it cuts 700 miles off the trip from the Canadian Pacific Coast to the Alaska Highway's southern terminus.

The highway is almost all gravel road. But it's "the best gravel road in the world," according to the men who maintain it. Some 300 of them work winter and summer grading and graveling its surface.

As a matter of fact, the highway is at its best for travel during certain winter months. Experienced drivers find that a well compacted bed of snow when the temperature is around 20 degrees below zero provides the fastest and most comfortable driving conditions. When the temperature rises much higher the highway tends to ice over. When the the temperature goes much lower—sometimes from 60 to 70 below zero—steering mechanisms and gears stiffen.

The worst driving conditions of all come in the spring, when winter snow and ice begin to thaw. Many long stretches of the highway turn into a mire that can be navigated only with tire chains or by special vehicles. The dryness of the summer months transforms the highway into a strip of yellow dust and flying gravel. And there are hordes of mosquitoes to plague motorists further.

Canadian authorities have set up

NEW FRONTIER

h America's Wildest and Most Beautiful Country May Play a Major Role in the Search for Oil

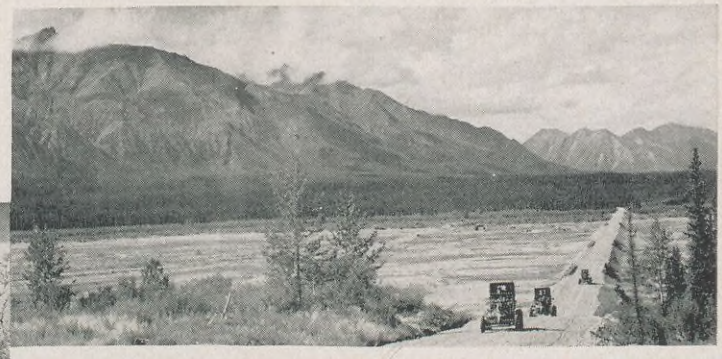
various regulations for use of the highway which are designed both to protect motorists and to assure that the highway will not become a graveyard for broken down and abandoned automobiles. All U. S. drivers must satisfy frontier officers that they have sufficient money for the average requirements of such a trip or that they can obtain additional funds in Canada. All drivers of old model vehicles or of those in poor condition are required to post either cash or guarantee bonds sufficient to cover the expense of shipping vehicles back to their home locations in case they break down and have to be abandoned along the road.

The highway, despite many improvements, is still somewhat murderous on tires. Authorities strongly suggest that motorists carry along at least two spares. At least four was the suggested number until recent years when many lodges and repair points sprang up along the road.

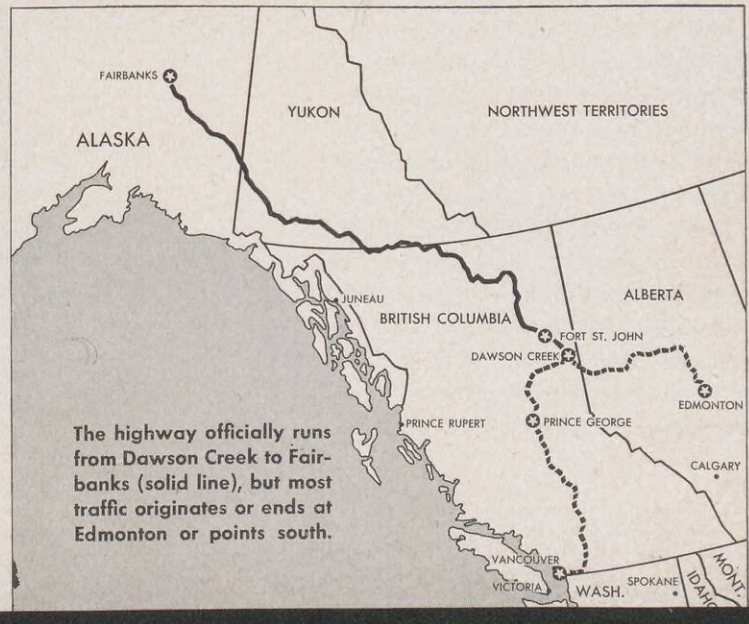
The Alaska Highway provides motorists with views of some of North America's most striking scenery and access to some of its best fish and game country. The highway runs along the eastern flank of the majestic St. Elias Range of mountains, whose 19,850-foot Mt. Logan is North America's second highest peak. The road also passes countless lakes and ponds with water varying in color from nut brown to milky blue. From the highway motorists can see bears, wild sheep, moose, foxes, buffalos, and other wild animals.

The Alaska Highway has brought a boom in the population of towns along the road. In addition—besides broadening the possibility for oil exploration—it has opened a new avenue for prospectors, providing them access to an area whose mineral wealth has scarcely been tapped. Many residents of the area say the highway has brought the north country the biggest bonanza since the gold rush of '98.

The Alaska Highway, which runs through some of North America's most beautiful country, requires constant maintenance. At right, three road graders smooth the gravel.



Travel on the Alaska Highway has so increased that thrice weekly bus service is available year 'round in buses like that at right.



The highway officially runs from Dawson Creek to Fairbanks (solid line), but most traffic originates or ends at Edmonton or points south.

Head Office Exploration and Land Department Functions Reorganized

R. E. McADAMS has been appointed to the new position of Manager of Exploration in Shell Oil Company's Head Office Exploration and Production Organization.

In this new assignment, Mr. McAdams will assume general responsibility for the day-to-day handling of Exploration and Land activities. He also will be responsible for the preparation and direction of Shell Oil Company's over-all Exploration program, including the development and direction of long-range geological and economic studies designed to determine the most effective use of money allotted to the finding of oil and gas.

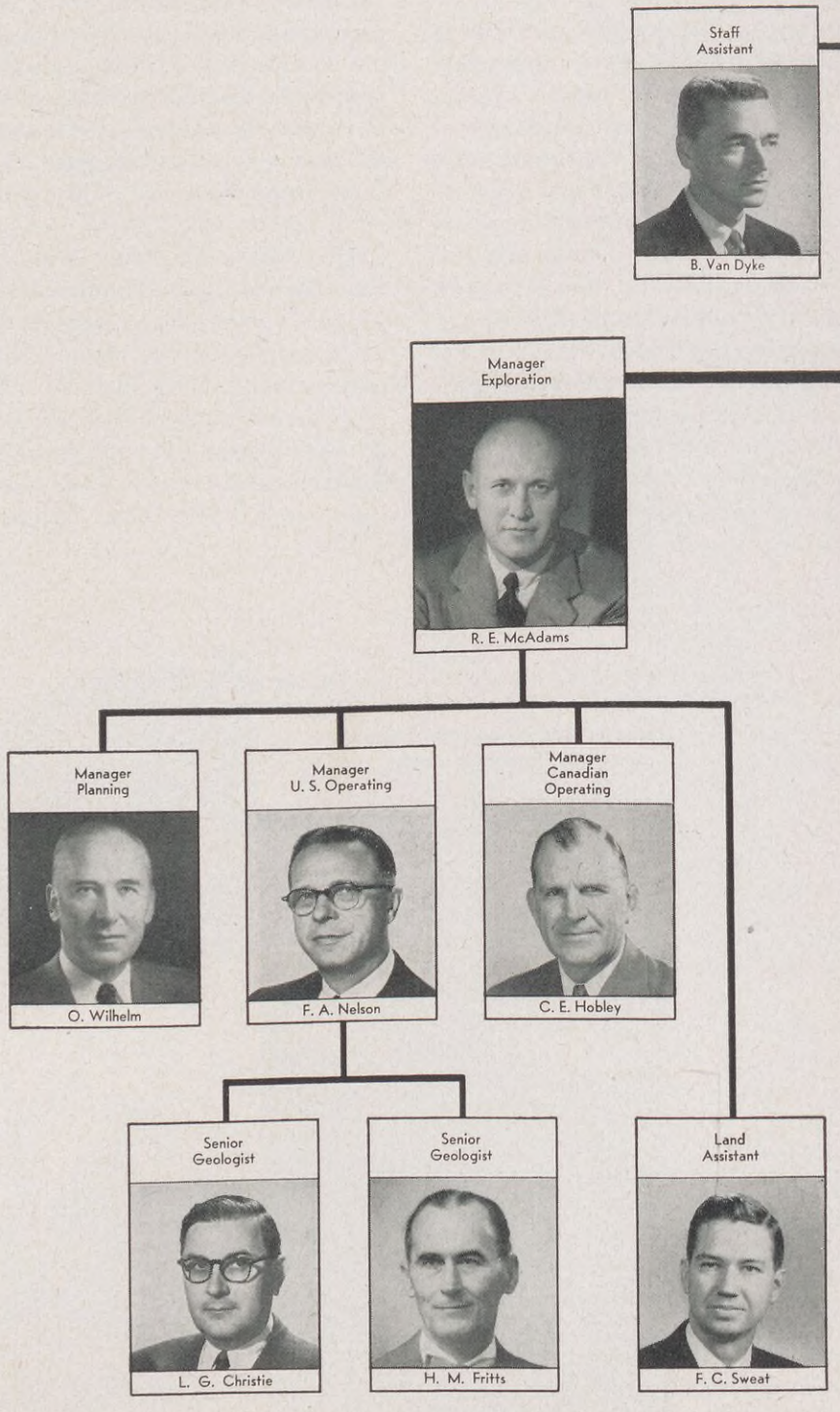
Under the new organizational arrangement, Mr. McAdams' staff includes F. A. Nelson, Manager—U. S. Operating; C. E. Hobley, Manager—Canadian Operating; Dr. O. Wilhelm, Manager—Planning, and F. C. Sweat, Land Assistant.

Mr. McAdams, who holds B.A. and M.S. degrees in geology from Texas A & M College, joined Shell Oil Company in 1936 as a Geologist and spent several years in geological assignments at locations throughout the Gulf Coast region. On military leave from 1942 to 1945, he returned to the Company as a member of the Exploration Department's Regional Staff in Houston. In June, 1947, he was appointed Exploration Manager of the Tulsa Exploration and Production Area, holding that position until the organization of the Denver Exploration and Production Area in the fall of 1953 when he became Exploration Department Manager at that location.

The third in a new series of organization charts

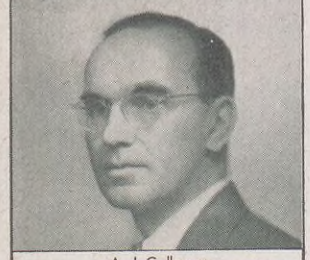
Shell Oil Company

March—1955



Exploration and Production Head Office Organization Chart

Vice President
Exploration and Production



A. J. Galloway

Administrative
Assistant

B. D. Vishanoff

Manager
Production

R. W. Bond

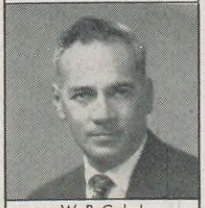
Manager
Exploitation
Engineering

J. W. Pittman

Manager
Mechanical
Engineering

J. D. Goodrich

Manager
Gas



W. B. Golush

Manager
Technological

J. T. Jordan

Senior
Exploitation
Engineer

E. Armbruster

Senior
Exploitation
Engineer

F. E. Nix

Senior
Engineer
Mechanical

R. L. Rankin

Senior
Technologist

G. C. Fotescu

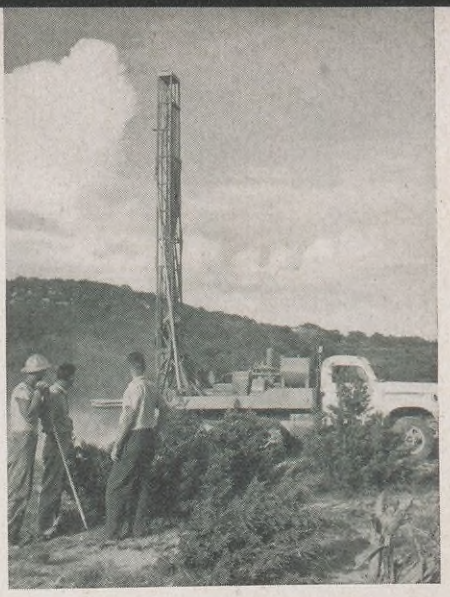
SOME SHOOT

IN a majority of the areas where oil has been found—and in as many areas where it is hoped that it will be found—surface topography gives little indication of the shape of things below the surface. An arching anticline that might hold oil, for example, may be directly below the lowest point of a valley floor.

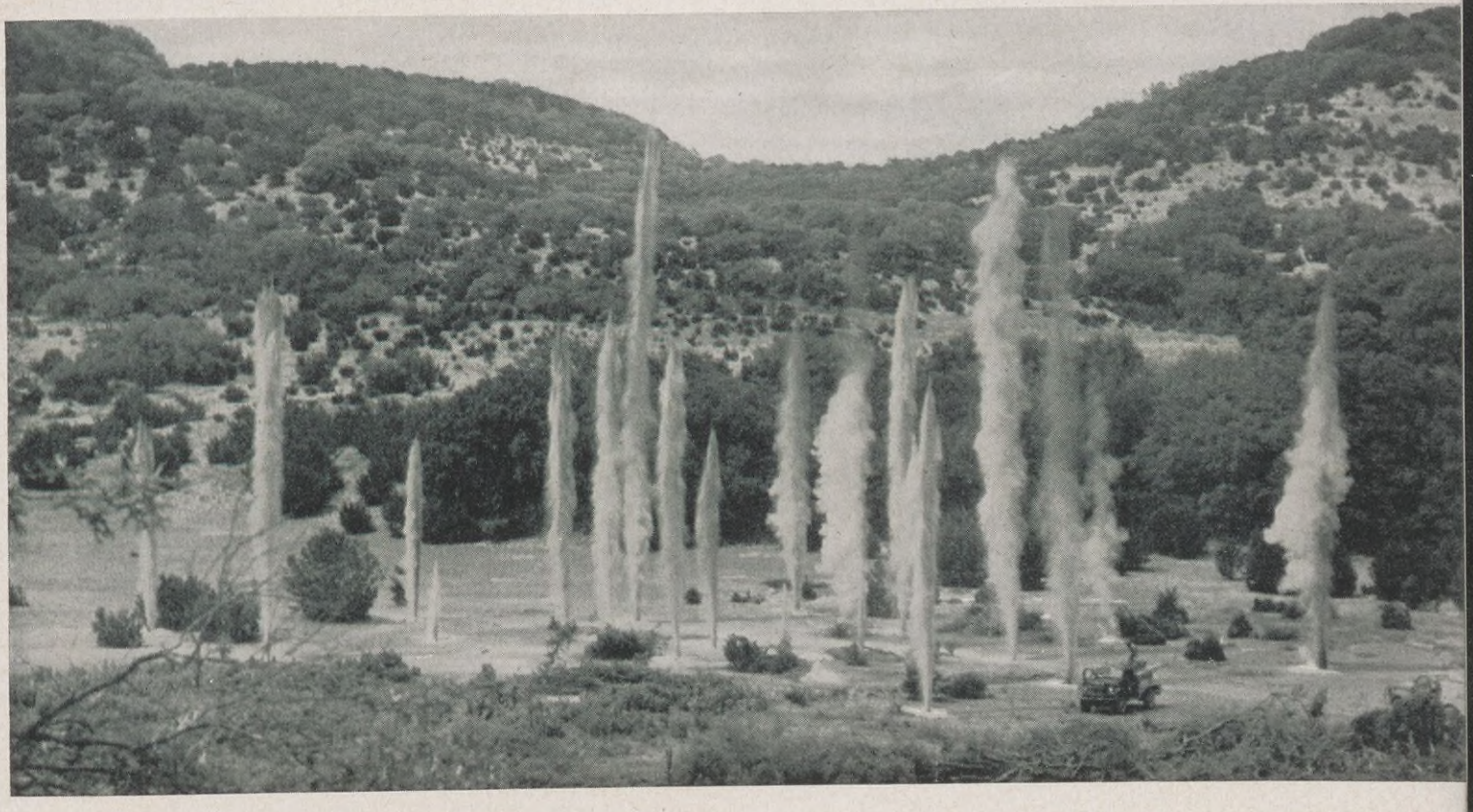
To decipher this natural riddle and discover underground formations favorable to the accumulation of oil, exploration men use a number of techniques, chief among them being the seismic method. By creating miniature earthquakes with charges of dynamite, they can record the reflection of sound waves bouncing back from rock strata at different levels below the surface. Interpreting these seismograph records, they can then draw a fairly accurate picture of what lies beneath them.

Seismic explosions set off by Shell shooting trucks like the one below sometimes get spectacular visual results. The cluster of smoke rings, left, occurred during shooting in West Texas.

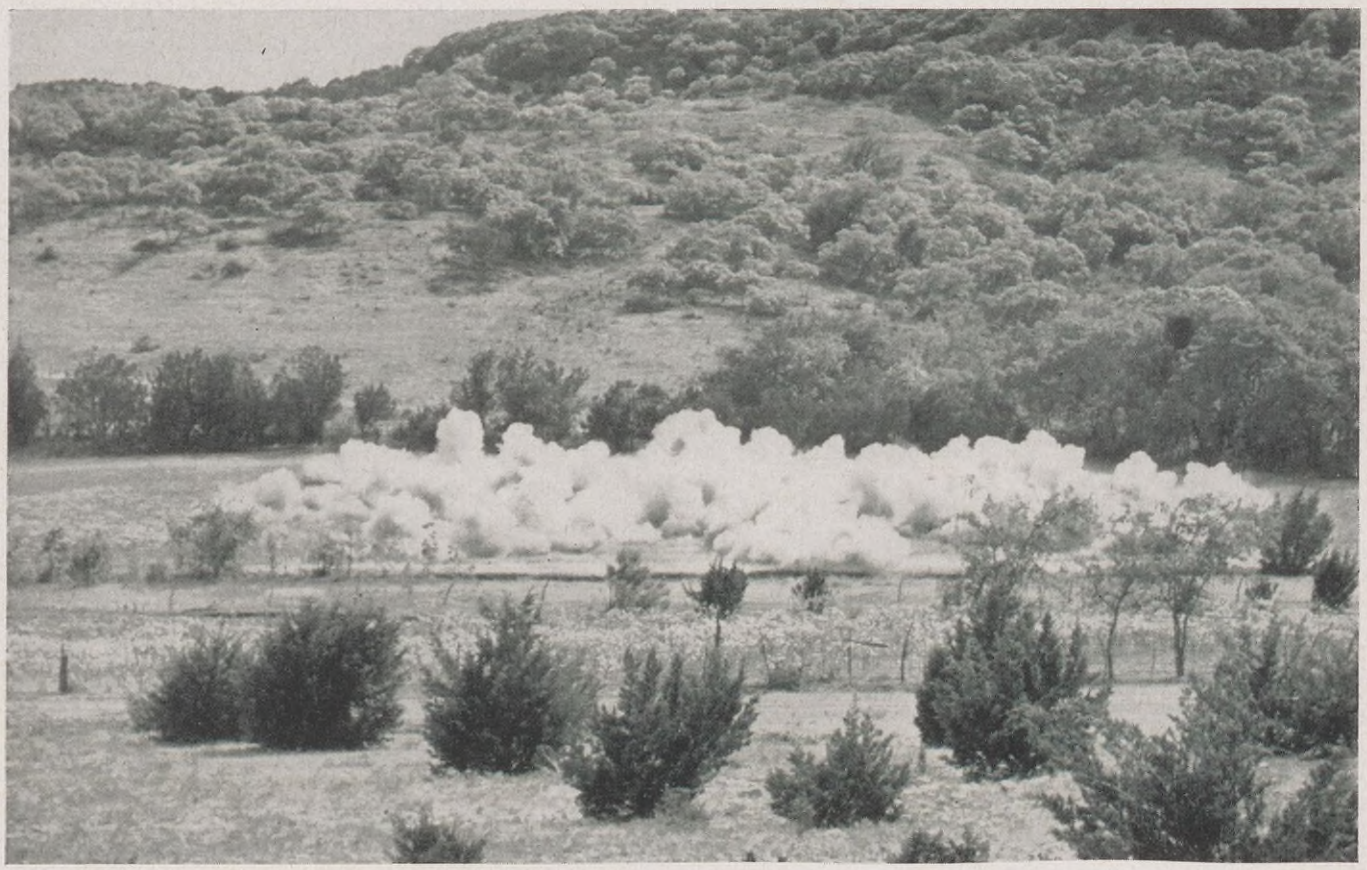
'EM HIGH SOME SHOOT 'EM LOW



IN THE GROUND: The trick is to know the best way to get the explosive energy into the ground. The most common and widely-used method is to drill holes with a small portable drilling rig (top, right) and to detonate explosive charges in them. Sometimes a single hole and single shot will gain the information desired at one location. But often surface or near-surface conditions require several simultaneous shots laid out in a pattern like the 18 explosions shown below. Shell's seismic crews call this "pattern" shooting. The holes may vary in depth from a few feet for multiple patterns to as deep as 600 feet for a single hole. When the multiple charges are fired, plumes of mud, gravel and smoke spout into the air, giving the impression of a beautiful formal garden shaded by stately poplar trees. The impression lasts only for a matter of seconds and is seldom appreciated by the men who have to refill the holes (center, right) after the shots are recorded.



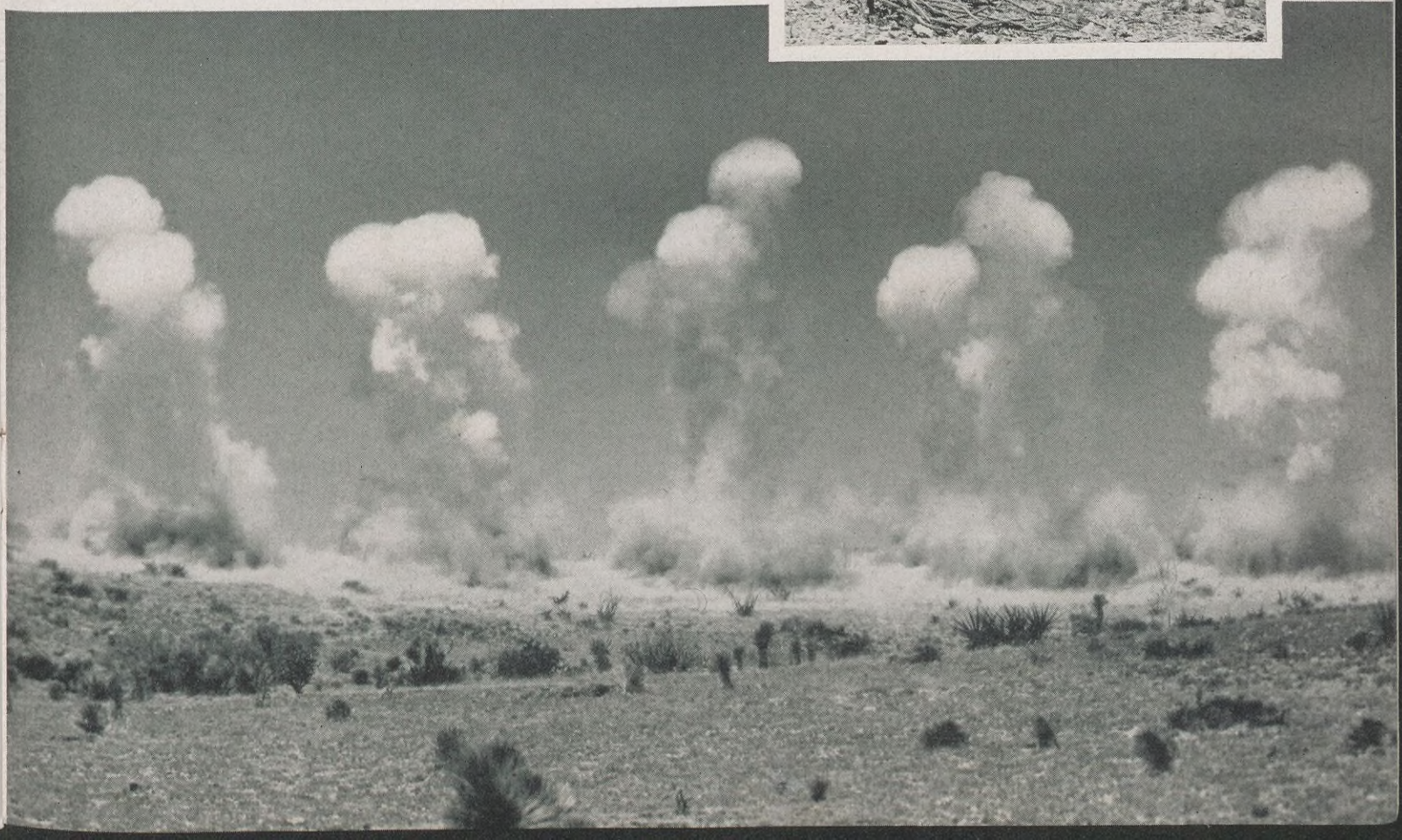
. . . AND SOME SHOOT 'EM ON THE GROUND



ON THE SURFACE: Seismic crews occasionally encounter rock at the surface or near the surface that is so hard that drilling shot holes with their light rigs is a slow and difficult task. Chert, a flint-like rock of almost diamond hardness, is a frequent offender. When faced with this problem, a seismic crew may simply choose to place the charges on the ground and set them off there. One-pound charges of explosive (center, left) are laid out on the ground in a regular pattern. They are connected to the shooting truck by an explosive fuse of "prima cord" (bottom, left), which can be fired instantaneously along its entire length by an electrical impulse. When the charges are fired, smoke and dust stays close to the ground and spreads out horizontally (above), which probably explains why oil men call this "blanket" shooting. When over-all geological conditions are favorable, this type of surface seismic shooting is faster and more economical than other methods.

ALL IN A ROW

IN THE AIR: While conducting experiments on the polar ice cap with the last Byrd Antarctic Expedition, Dr. Thomas C. Poulter, a Stanford Research Institute physicist, noted that explosions in the air seem to direct a substantial amount of energy downward, as do explosions on the surface or in holes. From this discovery he developed and patented a method of air shooting, which has been used by seismic explorers in some tough areas. Five to twenty pounds of dynamite are suspended above the ground on poles (top, right), usually in an orderly checkerboard pattern (center, right), and the charges are exploded in the air. The results are impressive (below), looking something like the Fourth of July at White Sands Proving Ground. Shell has a license to use this technique, utilizing it at locations where the cost of drilling shot holes is excessive or where surface conditions would dictate poor results from other shooting methods.



This Shell Pensioner Grows Avocados: *"One of the Most Rare and Pleasant Fruits. It Nourisheth and Strengtheneth the Body, Corroborating the Vital Spirits."*

GREEN GOLD

WHEN young Coloradoan Harry Deisher first went to California in 1923 he had never seen an avocado or an oil refinery. Today he can talk at length on both subjects—relying on first hand knowledge—for he worked for 27 years in Shell's Wilmington Refinery, is currently raising avocados, and for many years did both.

Harry Deisher is an example of a man who starts planning for retirement a long, long time before he receives his first pension check. As a Shell employee who retired in 1951 when he was a foreman at Wilmington, he is also a good example of a man who has put personal savings, his Shell Pension, and his Provident Fund to use in implementing his retirement plan.

As a result, this story goes back almost 20 years. It was then that Harry first started thinking about what he would do when he retired. His search for an answer involved two things: 1) His love of growing things, and 2) his love of hills and mountains.

Accompanied by his wife and son, Harry spent many week-ends exploring Southern California for a likely location. They found it one week-end when they visited friends at Vista, in the heart of a big citrus, avocado and flower growing area. The fertile valley, with its margin of rolling hills and mountainous backdrop, was in full bloom. The avocado orchards were particularly intriguing.

Some people tried to dissuade Harry from his thought of raising avocados. At the time when he selected his plan, production of avocados had already reached commercial proportions at Vista, but there was still much to be learned about the care and nurturing of the temperamental tropical trees. Government bulletins of the day spoke of growing "alligator pears" as a "rich man's hobby" because of the large investment in money and time required before the trees matured.

Despite this, Harry noted the established growers were getting such good prices that their fruit was called "green gold." They were also finding a ready market, because avocados have experienced a slow, but steadily increasing public acceptance from the time they were first known. As far back as 1519, the Spanish explorer Fernandez de Encisco praised this delicate New World fruit. And a 1672 English manuscript extolled the avocado as:

"One of the most rare and pleasant fruits. It nourisheth and strengtheneth the body, corroborating the vital spirits."

From a practical standpoint, Harry Deisher had plenty of time to develop an avocado orchard before retirement. By 1936, he also had enough available funds to go into partnership

Harry Deisher takes a break from his orchard chores, above, to watch Mrs. Deisher entertain their three grandchildren who live nearby.

with Mrs. Deisher's sister and her husband to purchase a 20-acre hillside plot on a creek bank near Vista. (The value of undeveloped sagebrush hillside in the vicinity has increased nearly 20 times since they bought theirs.) They dedicated their week-ends and vacations to developing the land and planting trees. Living in a camp on the creek bank, the Deishers and their partners dug ditches and laid irrigation pipes. They scooped

out the holes for 300 small avocado trees with picks and shovels.

The job was barely done when disaster hit! Southern California had one of its most damaging freezes in the winter of 1937—and the Deishers lost every tree. It took almost two years to lay aside enough money to replant, but by the end of 1938 they had replaced the 300 dead trees and planted an additional 1,200. All were two feet tall, 18 months old and of the Fuerte variety. (There are more than 100 varieties of avocado, but only about six are grown commercially.)

"Sure it was hard work," says Harry. "It has been hard work since. But it's worth it. I know every one of those trees out there personally. They're like prima donnas, and I pamper them. It takes a lot of patience, but if handled right anything will grow. Some people blame the trees when they go into a decline. It's more likely the farmer who is declining."

Tanned from his outdoor work, Harry is in good health and looks years younger than his true age. His 10 acres (the partnership was dissolved and the land divided equally in 1945) have been producing fruit for nearly a dozen years and he now sells about 15 tons of avocados annually. He is experimenting with additional commercial crops and also has a vegetable garden, flower garden and several fruit and nut trees for family use.

In 1938, after the young trees were planted, he built his first house in spare time, assisted by his son, Jim. After he retired in 1951, he built a second house, using his Provident Fund money to add certain extra conveniences designed by his wife. It's the home they always wanted. Son Jim, his wife and three small children, now live in the first house.

"I don't knock myself out," says Harry. "But a man can't just quit when he retires. We've been building the value of our land—which is just about the same as putting money in the bank."

With two of his grandchildren aboard, Harry cultivates his thriving avocado orchard. His mechanical skill, mainly developed in jobs at Shell's Wilmington Refinery, helps him keep the tractor and other equipment in top condition.

Harry does all of his own picking. The matured fruit weigh between 12 and 16 ounces each and he grows about 15 tons annually. Avocados must be handled with care because, like many tropical fruits, they bruise easily. They also suffer from sunburn, but heavy leaves protect them.

They

F. C. ALLEN
Tulsa Area
Treasury

J. Q. BALLARD
San Francisco Division
Operations

J. P. BARLOW
Shell Chemical Corp.
Shell Point Plant

P. K. BARRINGTON
Martinez Refinery
Cracking

C. A. BEARDEN
Wood River Refinery
Stores

A. M. BEELER
Portland Division
Operations

J. F. BONIN
Martinez Refinery
Cracking

L. B. BRADFORD
Tulsa Area
Gas

L. H. BRIDE
Martinez Refinery
Distilling

G. E. BRIGHT
Pacific Coast Area
Production

J. N. BROWN
New Orleans Area
Production

A. B. CRAIG
Pacific Coast Area
Production

E. L. CRUTCHLEY
Wood River Refinery
Engineering

G. C. DeLAPP
Pacific Coast Area
Production

H. L. EVERS
Houston Refinery
Engineering

C. D. FAIRBANKS
Pacific Coast Area
Purchasing-Stores

E. P. FRUGE
New Orleans Area
Production

T. P. GAUDET
Norco Refinery
Engineering

B. C. HAMILTON
Los Angeles Division
Operations

M. W. HENDRICKS
Houston Refinery
Thermal Cracking

D. KESLICK
Wood River Refinery
Engineering

W. R. KING
Wood River Refinery
Treasury

W. L. KOCH
Wood River Refinery
Engineering

Have Retired

E. S. KOCHER
Albany Division
Operations

W. E. KRAUS
St. Louis Division
Operations

A. P. LANDRY
New Orleans Area
Production

E. W. LAX
Shell Development Co.
Emeryville

A. O. MEIER
Head Office
Marketing

J. J. NOLAN
Martinez Refinery
Lubricating Oils

R. G. PIERCE
Shell Pipe Line Corp.
Mid-Continent Area

L. F. RANDALL
San Francisco Division
Operations

C. C. RUFF
San Francisco Division
Operations

C. C. SALVUCCI
Wilmington Refinery
Dispatching

F. N. SHRIVER
Midland Area
Treasury

Operations
G. W. SINGLE
Sacramento Division

F. A. SNYDER
Products Pipe Line
East Chicago, Ind.

S. J. SONTHEIMER
St. Louis Division
Operations

A. J. SPRAY
Tulsa Area
Production

C. H. STEVENS
Pacific Coast Area
Production

G. L. SWITZER
Head Office
Marketing

C. L. TONER
Wood River Refinery
Engineering

R. V. VOGT
Tulsa Area
Gas

W. J. WALBRIDGE
Pacific Coast Area
Production

H. S. WHITE
Tulsa Area
Production

C. R. WHITSON
Cleveland Division
Sales

P. A. WIETING
Head Office
Marketing

SHELL COAST TO COAST

One of the most successful plays presented by the Shell Employees Activities Club in Los Angeles was a recent production of "Born Yesterday." Among players were J. F. Anderson, left, in photo at right, Clerk in the Los Angeles Marketing Division's Treasury Department, and B. G. Warren, Attorney in the Los Angeles Exploration and Production Area's Legal Department.

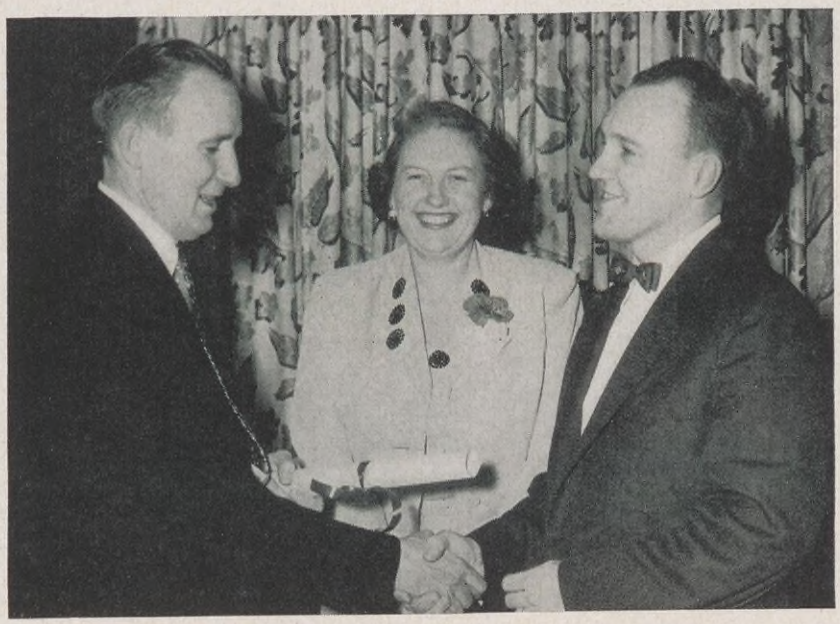
As part of the Houston Refinery's 25th anniversary observance, an open house was held recently at the refinery research laboratory during which employees showed their families and other guests around. Special Tester W. M. Liggin, is shown, center, explaining the operation of the analytical distillation section to his wife and son, as David Shumaker, left, and Gary Zunwalt, right, two students from Houston's Rice Institute, look on.

Vitaly Valiansky, right, below, of the Emeryville Research Center's Lubricants General Department, recently played the title role in Tchaikovsky's opera "Eugene Onegin" during performances at the Russian Theatre and at California Hall, both in San Francisco. Mr. Valiansky, a baritone, has studied voice for 10 years.

Members of the Shell Men's Club in the Baltimore Marketing Division were guests on January 7 of the Gunther Brewing Company of Baltimore, a Shell customer. More than 50 club members were taken on a tour of the brewery. Afterward, they were served a buffet supper. Part of the group that attended is shown, left, standing beside one of the plant's big brewing kettles.

LaRue Hamer, a typist in the Cleveland Marketing Division headquarters, was an official guest of Ohio Lieutenant Governor John Brown at inauguration ceremonies earlier this year in Columbus. They are shown above, chatting about the occasion. Both Miss Hamer and Mr. Brown are from the same hometown, Medina, Ohio, about 25 miles south of Cleveland.

Dale F. Fink, right, below, a Group Leader at the Wood River Refinery Research Laboratory, was presented the Distinguished Service Award of the Wood River Township Junior Chamber of Commerce at the organization's annual banquet on January 17. Louis Camp, chairman of the group's award selection committee, made the presentation as Mrs. Fink smiled her approval. The award was made in recognition of Mr. Fink's outstanding contributions to the community and organization.



F. N. Turner, above, a Head Office Auditor, made the plea, below, to The Wall Street Journal and found it printed among the newspaper's Jan. 26 Letters to the Editor.

Syllable Happy

Editor, The Wall Street Journal:

How often we've been told to write, at college age and less,
In terms as plain as Mr. Lincoln's Gettysburg Address—
Avoiding phrases erudite where simple ones are clearer,
The better to express the thought, not just impress the hearer.

Though few dispute this sound advice, inside a corporation
The common touch in writing is a victim of inflation:
The language of the office walks on stilts the long way 'round,
Discarding easy words whenever hard ones can be found.

We find the sub-executive whose eye is on advancement
Proclaiming that the net return reflected some enhancement
(A mouthful meaning neither more nor less than *profits rose,*
And gaining nothing from the gilt of ostentatious prose).

To say *about* is frowned upon, *approximately's* better—
While *later* must be *subsequently* in the business letter;
Before is out, since *prior to* sounds more sophisticated,
And no one writes *expected* who can spell *anticipated.*

Disguising *cause* as *causative factor* shows one's on the move,
And words like *optimum,* for *most,* are really in the groove;
Inaugurated and *finalize* are favored, though, in truth,
Begin and *end* are more exact and not at all uncouth.

Sir Winston's famed *Blood, Sweat and Tears,* that sparked the English nation,
Would never have endured with *sweat* dressed up as *perspiration.*
So here's a plea for plain words that more clearly tell the story
Than polysyllable displays of verbal repertory.

FRANKLIN N. TURNER

White Plains, N. Y.

Words and Phrases

Shell couples at the Wood River and Houston Refineries won valuable prizes recently in unrelated contests.

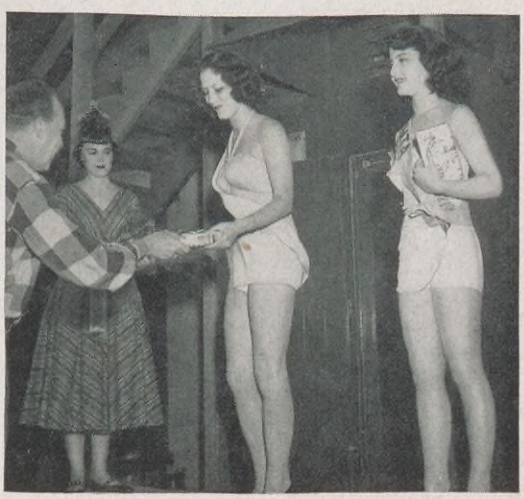
Mrs. Mildred Mellies, wife of Wood River Refinery Technologist R. J. Mellies, won a week's all-expense vacation in Tucson, Arizona, for herself and her husband by providing a phrase for a nationally aired radio program, "The Phrase that Pays". Studio contestants were unable to guess her phrase, "settle your hash," despite clues.

R. W. Dawson, of the Houston Refinery's Lube Dewaxing and Oil Finishing Unit, and his wife won a $400 cash award for their entry in a crossword puzzle contest sponsored by a Houston newspaper.

Mr. and Mrs. Dawson, left photo, above, admire the $400 check their efforts earned them. The Arizona trip awarded Mr. and Mrs. Mellies, right photo, included a visit to craft shops in Tucson, where they inspected Mexican Indian tincraft such as that she holds.

Construction started near Houston recently on an office building and research laboratory for Shell Oil Company's Exploration and Production Technical Services Division and Shell Development Company's Exploration and Production Research Division. Taking part in ground breaking ceremonies, above, are, from left, Joseph Chalmers, Technical Services Division Manager; A. S. Low, an officer in the firm which designed and is constructing the building; P. W. White, a landowner; J. A. French, Mayor of Southside Place, a Houston suburb; N. D. Smith, Jr., Shell Development Vice President and Director of the Exploration and Production Research Division, and H. P. White, another landowner.

The photograph, below, of a beauty competition, staged by the Joint Activities Committee for Shell Employees in Manhattan, will appear on the frontispiece of a McGraw-Hill Publishing Company book, *Industrial Recreation*, by Dr. J. M. Anderson, which will be published this spring. Shown in the photograph, which was made during a Head Office outing in 1952, are, from left, R. H. Firth, Senior Analyst in the Traffic Department; Mary Alys Jackson and Jeanne Murray, both former Shell employees, and Marie Valente, Supplies Department Stenographer.



Service Birthdays

Thirty-Five Years

D. E. BURROUGHS
Head Office
Financial

L. F. FALCON
Norco Refy.
Distilling

J. M. FLAHERTY
Head Office
Financial

J. R. FLEMING
New Orleans Area
Production

M. FRANKLIN
Norco Refy.
Engineering

L. P. FRILOUX
Norco Refy.
Engineering

R. F. GRAY
New Orleans Area
Treasury

C. C. IRWIN
Tulsa Area
Production

R. S. JONES
Tulsa Area
Production

L. L. LOCKWOOD
Tulsa Area
Production

B. L. RYAN
Houston Area
Administration

C. E. SCHOENDUBY
Shell Chemical Corp.
Head Office

N. WALLACE
Midland Area
Automotive

Thirty Years

S. BUCKSTAFF
Houston Area
Exploration

M. H. CLARK
Shell Development Co.
Modesto Laboratory

M. G. DANIEL
Head Office
Purchasing-Stores

W. C. DONNAL
Tulsa Area
Production

M. J. EKLUND
Seattle Div.
Sales

C. O. FONES
Wood River Refy.
Pers. & Indus. Rel.

J. A. FOSTER
Pacific Coast Area
Production

C. C. GOFF
Tulsa Area
Production

A. J. GUILLORY
Norco Refy.
Engineering

A. C. HARRIS
Wood River Refy.
Engineering

F. C. HEGEMAN
Wood River Refy.
Engineering

E. A. HILL
Shell Pipe Line Corp.
Mid-Continent Area

O. HOWELL
Sacramento Div.
Sales

E. HURST
Tulsa Area
Production

H. B. KINCAID
Wood River Refy.
Thermal Cracking

F. E. MALONE
Chicago Div.
Sales

A. K. MARQUEZ
Pacific Coast Area
Production

N. J. McGAW
Vice President
Economic Devel.

L. E. ORR
New Orleans
Purchasing-Stores

J. PETERSON
Pacific Coast Area
Production

J. R. PRATHER
New Orleans Area
Production

F. O. PROCHASKA
Shell Pipe Line Corp.
Texas Gulf Area

B. F. ROBERTS
St. Louis Div.
Sales

F. W. SCHWARZ
Wilmington Refy.
Compounding

B. P. TATE
Seattle Div.
Treasury

C. P. WILSON
Shell Pipe Line Corp.
Mid-Continent Area

G. J. WILSON
Sacramento Div.
Sales

L. A. WILSON
Wood River Refy.
Engineering

V. V. WOODRUFF
Pacific Coast Area
Production

J. S. YOUNG
Wood River Refy.
Lubricating Oils

Twenty-Five Years

B. L. ALLEN
Houston Refy.
Utilities

D. A. ARNHART
Shell Pipe Line Corp.
Mid-Continent Area

D. W. BARROWS
Baltimore Div.
Sales

L. A. BECK
San Francisco Div.
Operations

W. E. BROWN
Houston Area
Land

T. V. BROWNLEE
Shell Pipe Line Corp.
West Texas Area

C. A. BURKE
Boston Div.
Treasury

S. P. CHAUVIN
Norco Refy.
Engineering

R. V. CLARK
Martinez Refy.
Research Laboratory

R. E. COPLEN
Shell Chemical Corp.
Ammonia Div.

M. H. W. DENT
Head Office
Transp. & Supplies

M. D. DOBROWSKA
Head Office
Financial

H. A. DOHRENWEND
Head Office
Personnel

F. E. EDMISTON
Tulsa Area
Treasury

S. H. ENGLISH
St. Louis
Railroad Sales

E. ESPOSITO
Head Office
Legal

E. S. FARRELL
Boston Div.
Operations

F. E. FARRELL
Boston Div.
Operations

J. L. FOSHER
St. Louis Div.
Treasury

R. B. FRENCH
Wood River Refy.
Compounding

J. A. GAAL
Sewaren Plant
Depot

J. D. GORE
Houston Refy.
Lubricating Oils

E. J. GRIFFIN
Head Office
Marketing

W. J. HANNAN
New Orleans Div.
Operations

J. M. HANNUM
Baltimore Div.
Sales

L. L. HAY
Houston Refy.
Thermal Cracking

H. W. HELMBOLDT
Portland Div.
Operations

J. F. HOFFNER
Wood River Refy.
Utilities

H. E. HOLMES
Baltimore Div.
Sales

M. E. HURLBUTT
Portland Div.
Operations

R. F. ICHORD
Head Office
Organization & Salary

L. H. JACOBY
Head Office
Financial

R. O. KEILBACH
Wood River Refy.
Compounding

C. C. KELLER
Baltimore Div.
Operations

R. F. KINSLEY
Albany Div.
Operations

R. J. KURRUS
Shell Pipe Line Corp.
Head Office

I. S. MAXWELL
Chicago Div.
Tax

D. D. McDANIEL
Baltimore Div.
Sales

T. D. McGILL
Shell Pipe Line Corp.
Texas Gulf Area

D. E. MOORE
New York Div.
Operations

S. E. MORAWETZ
Boston Div.
Sales

J. C. NELDER
Wood River Refy.
Distilling

C. A. NEWBERRY
Tulsa Area
Production

K. B. O'MELIA
Head Office
Financial

W. D. PENMAN
Detroit Div.
Sales

A. T. PERRETT
Sacramento Div.
Treasury

O. D. POWERS
Wood River Refy.
Dispatching

A. R. RICH
Wood River Refy.
Thermal Cracking

R. A. RIGGS
Midland Area
Production

I. C. RIGNEY
Head Office
Financial

Twenty-Five Years (cont'd)

R. R. RIPLEY
Indianapolis
Purchasing-Stores

F. J. RODNEY
Minneapolis Div.
Administration

O. E. ROSS
Tulsa Area
Production

S. RUSSO
Martinez Refy.
Dispatching

H. O. SCHRAMM
Baltimore Div.
Sales

T. R. SCOTT
Wood River Refy.
Catalytic Cracking

J. A. SHATTUCK
New Orleans Area
Production

P. C. SHIVELL
Los Angeles Div.
Operations

R. W. SITTON
Wilmington Refy.
Compounding

F. L. SMITH
Baltimore Div.
Sales

B. STOLLEY
Martinez Refy.
Manager

H. G. STUVELING
Pacific Coast Area
Production

E. P. TILLMAN
San Francisco Div.
Operations

R. L. TYRRELL
Sacramento Div.
Sales

W. L. WAITE
Portland Div.
Sales

T. L. WALLIS
Portland Div.
Treasury

L. D. WESSLING
Calgary Area
Production

W. D. YOUNG
Head Office
Financial

SHELL OIL COMPANY

Head Office

20 Years

D. S. Pereau.....Marketing
H. E. Schuurman.....Transp. & Supplies

15 Years

J. T. Cashman.....Transp. & Supplies
A. L. Sibley.....Marketing

10 Years

M. J. Otto.....Purchasing-Stores

San Francisco Office

10 Years

M. E. Wagner.....Purchasing-Stores

Exploration and Production

CALGARY AREA

10 Years

I. D. Crawford.....Exploration

HOUSTON AREA

20 Years

C. W. Fisher.....Land
H. K. Harrison.....Treasury

10 Years

E. A. Limmer.....Production
B. V. Stell.....Treasury

MIDLAND AREA

20 Years

G. L. Goodpasture.....Production

15 Years

C. W. Stout.....Production

10 Years

G. T. McCamy.....Production
C. A. Worden.....Production

NEW ORLEANS AREA

20 Years

A. L. Dugas.....Production
F. C. Moore.....Production

15 Years

A. J. Folse.....Production

10 Years

C. O. Story.....Gas

PACIFIC COAST AREA

20 Years

N. G. Acebedo.....Production
V. B. Douglas.....Production
L. L. Hunting.....Production
F. A. Smith.....Production
J. L. Warner.....Production
R. J. Whitson.....Production

15 Years

A. L. Fennell.....Production

10 Years

J. D. Akins.....Purchasing-Stores
H. R. Baker.....Production
M. Barragan.....Production
L. W. Fischer.....Production
R. M. Hunt.....Production
G. H. Lusk.....Production
J. B. Spock.....Production
D. W. Williams.....Production

TULSA AREA

15 Years

C. P. Atchison.....Crude Oil
A. M. Bruner.....Exploration
P. A. Dennies.....Production
J. M. Dillon, Jr.....Gas
R. E. Jackson.....Production
C. E. Williams.....Production
E. J. Wilson.....Production

10 Years

T. M. Gillilan.....Exploration
A. J. Schwenk.....Production

Manufacturing

HOUSTON REFINERY

20 Years

J. L. Knight.....Engineering
C. W. Murrell.....Engineering
E. D. Runnels.....Gas

15 Years

C. W. Eddleman.....Engineering
J. C. Huffman.....Engineering
C. E. Reedy.....Lubricating Oils
F. G. Remkes.....Lubricating Oils
C. W. Sparks.....Gas
R. C. Whitley.....Engineering

10 Years

C. Daughrity.....Engineering
E. O. Duke.....Engineering
W. R. Findlay.....Engineering
J. Goodnight.....Gas
A. W. Gore.....Gas
J. C. Gray.....Engineering
O. S. Jenkins.....Gas
J. W. Pearson.....Engineering
E. D. Seaton.....Gas

MARTINEZ REFINERY

10 Years

J. W. Hammitt.....Dispatching
R. Hunley.....Engineering
P. E. Marinello.....Engineering

NORCO REFINERY

15 Years

L. W. Duhe.....Engineering

10 Years

J. E. Schexnayder.....Engineering
T. H. Weber.....Stores

WILMINGTON REFINERY

20 Years

R. H. Peters.....Engineering

15 Years

U. B. Stair.....Engineering

10 Years

R. F. Hellinger.....Engineering
R. J. Kenard, Jr.....Alkylation
A. J. Knox.....Engineering
D. Pollock.....Engineering
G. M. Quick.....Catalytic Cracking
W. G. Reamer.....Alkylation
S. Renty.....Engineering
C. P. Wogoman.....Fire & Safety

WOOD RIVER REFINERY

20 Years

C. W. Barnett.....Control Laboratory
E. H. Behme.....Stores
K. L. W. Bruning.....Stores
R. A. Darner.....Gas
K. I. Scroggins.....Control Laboratory
J. M. Sheraka.....Experimental Laboratory
C. M. Williams.....Lubricating Oils
L. E. Wilson.....Compounding
G. R. Wohlford.....Engineering

15 Years

C. S. Cobbel.....Engineering
C. A. Crites.....Engineering
J. Gregor, Jr.....Experimental Laboratory
T. J. Kelly.....Engineering
C. D. Maroe.....Engineering
J. F. Murphy.....Engineering
E. E. Parjanie.....Engineering
R. V. Soapes.....Engineering
A. H. Strebler.....Control Laboratory
S. Szegedy.....Engineering

10 Years

F. R. Alsberg.....Research Laboratory
L. A. Kellar.....Utilities
J. N. Martin.....Fire & Safety
R. E. O'Connell.....Gas
A. C. Shelton.....Thermal Cracking
J. E. Wood.....Engineering

Marketing

MARKETING DIVISIONS

20 Years

T. C. Gavin.....Albany, Operations
J. J. Grady.....Boston, Operations
T. F. Stevens.....Boston, Operations
W. Spark.....Chicago, Operations
R. H. Harmon.....Indianapolis, Operations
M. E. Schroeder.....Indianapolis, Treasury
R. T. Bean.....Los Angeles, Operations
E. Rickards.....Portland, Sales
L. K. Wade.....Portland, Operations
J. H. Barrie.....Seattle, Personnel

15 Years

J. P. Desrochers.....Boston, Operations
E. S. Zurkan.....New York, Sales
G. F. Moman.....Portland, Operations

10 Years

O. M. Lovelady.....Atlanta, Operations
W. H. Tyler.....Boston, Sales
H. J. Parker, Jr.....Chicago, Sales
N. Rosenberg.....Chicago, Sales
J. M. Vaughan.....Chicago, Operations
E. S. Motto.....Cleveland, Operations
H. E. Slagle.....Cleveland, Sales
J. F. Weber.....Detroit, Operations
K. Mabe.....Honolulu, Operations
J. P. Dinkel.....Indianapolis, Operations
F. R. Redman.....Indianapolis, Sales
A. H. Taddiken.....New York, Operations

SEWAREN PLANT

15 Years

L. J. Jordan.....Terminal

10 Years

C. J. Konkowski.....Chemical
J. J. Sernyik.....Depot
Marie C. Shepherd.....Treasury

SHELL CHEMICAL CORPORATION

15 Years

M. B. L. Butler.....Houston

10 Years

L. G. Smith.....Denver
C. E. Bautsch, Jr.....Houston
N. G. Parten.....Houston
J. L. Turner.....Houston
W. C. Pattison.....Martinez

SHELL DEVELOPMENT COMPANY

20 Years

E. L. Bastin.....Emeryville
W. B. Milligan.....Emeryville
J. A. Samaniego.....Emeryville

10 Years

F. T. Caswell.....Emeryville
E. M. Marmion.....Houston

SHELL PIPE LINE CORPORATION

15 Years

D. N. Andrews.....Head Office
F. L. Belcher.....West Texas Area
D. R. Hayley.....West Texas Area

10 Years

G. C. Jones.....West Texas Area
D. L. Thompson.....West Texas Area

matters of *fact*

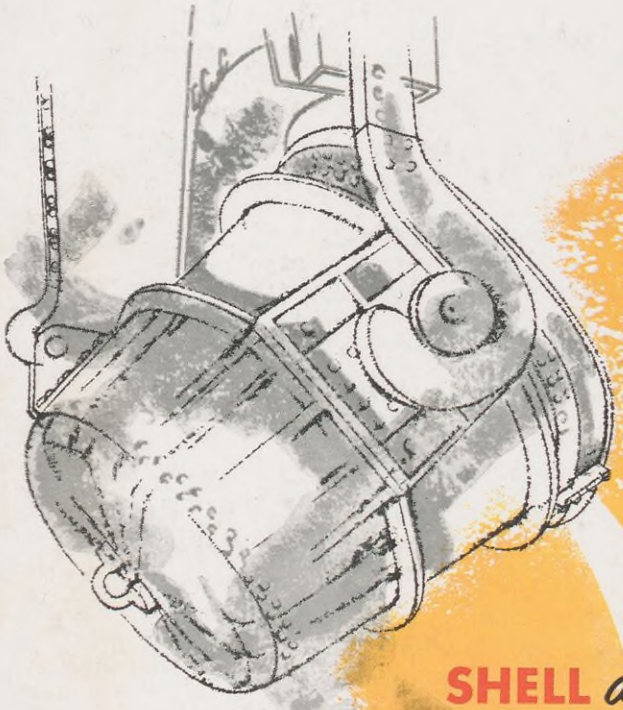
THE LATCHSTRING IS OUT

Furnishing information and guidance to employees is one of the chief responsibilities of Shell supervisors. The latchstring of welcome is always out, so when you want to know something about your job or your Company, ask your supervisor. If he doesn't know the answer to your question, he knows where he can get it for you.

SHELL OIL COMPANY
50 West 50th Street
NEW YORK, N. Y.
RETURN POSTAGE GUARANTEED

J. B. Bradshaw
4710 Bell
Houston, Texas

SCC



SHELL *around the Nation*

CLEVELAND

Located on Lake Erie's south shore at a point between the great ore regions of the Great Lakes and the coal fields of Pennsylvania, this major steel capital rings with the activity of arriving and departing ore boats and the hum of blast furnaces. But more than this, a diversity of products flow from the plants of 3,200 manufacturers in Cleveland, the nation's seventh largest city. Cleveland is the home of nearly one million people of many national origins, a business and cultural center for more than a half million others.

Shell's Cleveland Marketing Division, which celebrated its 25th anniversary in 1954, serves this busy area. The Division's six District Sales Offices and more than 400 employees serve all of Ohio and parts of Kentucky, Pennsylvania and West Virginia. The Division supplies over 600 retail outlets, and 40 major jobbers with nearly 400 jobber dealer outlets. Shell's bulk depot at Cleveland, with a storage capacity of 4½ million gallons, is only one of the Division's 12 depots. The Division receives most of its products from the Wood River Refinery via the East Products Pipe Line. Some others arrive aboard lake tankers.