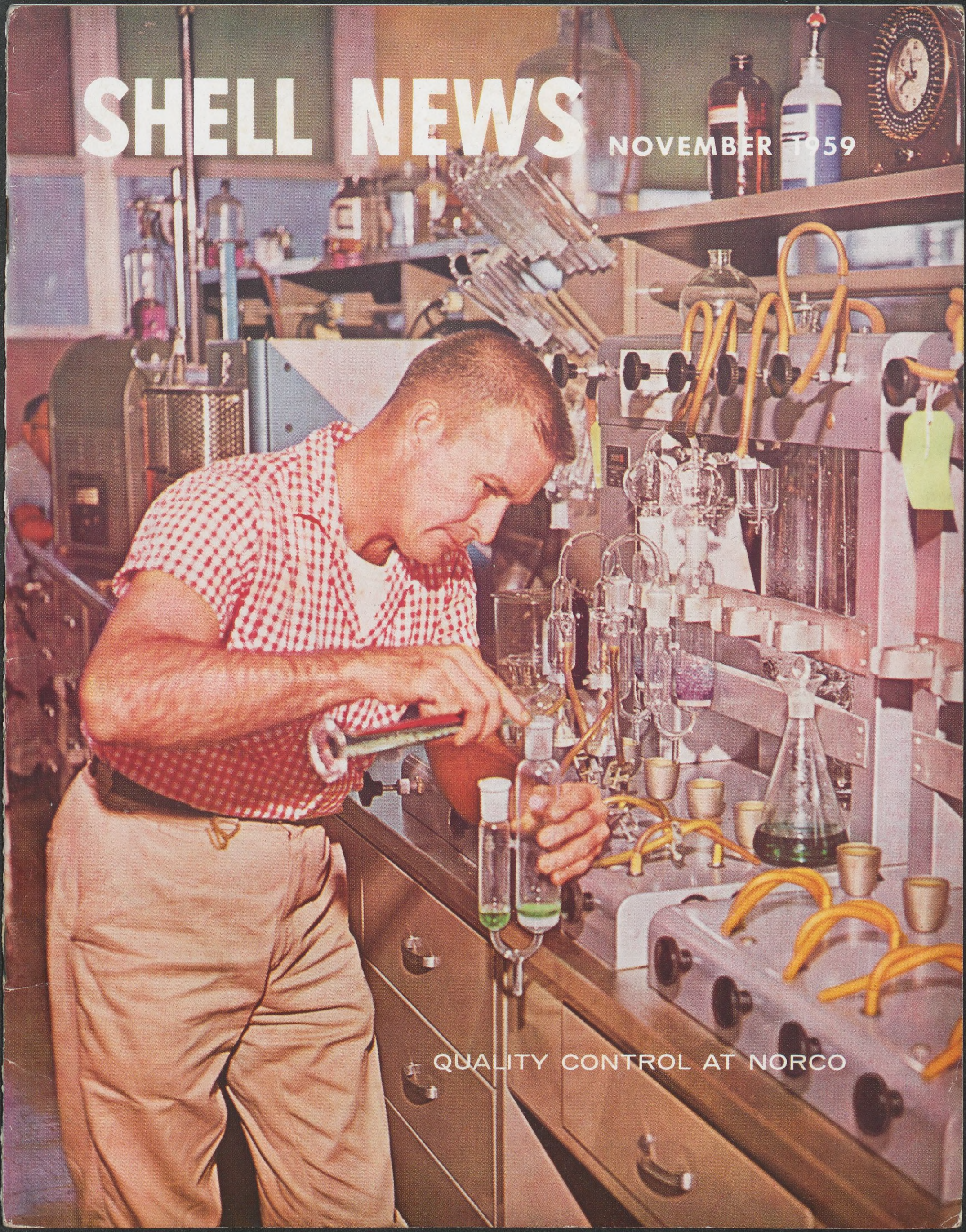
SHELL NEWS

NOVEMBER 1959



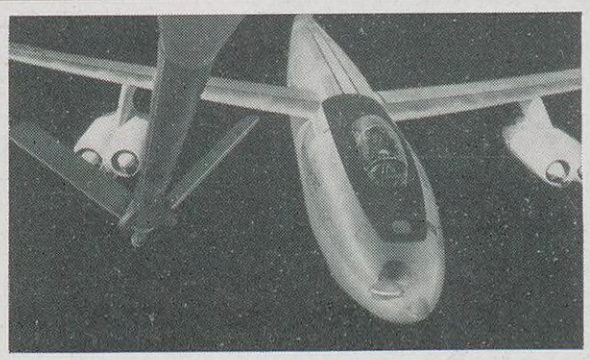
QUALITY CONTROL AT NORCO

PEACE IS THEIR PROFESSION

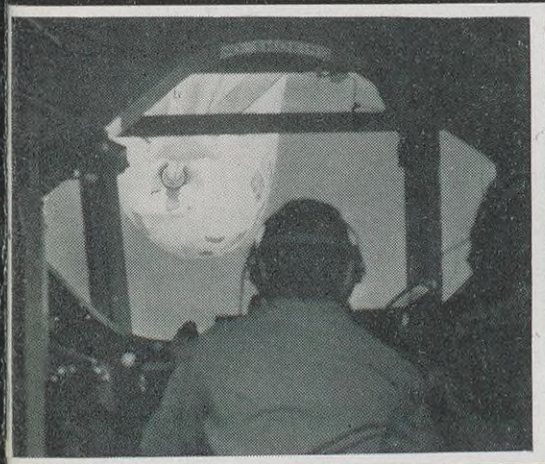
Speeding through the moonlit sky, a KC-97 tanker refuels a B-47 bomber. With aerial refueling, the bombe

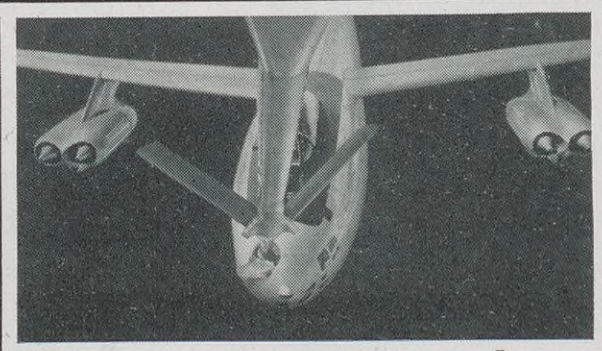
Aerial refueling gives Strategic Air Command bombers a long-range capability which deters possible attack against the U. S.

THE BOOM OPERATOR lay on his stomach in a small, windowed compartment set out under the tail of the KC-97 Stratotanker. His eyes squinted as he looked out into the empty night sky. Somewhere in the darkness a B-47 bomber sought the tanker, following a faint radar signal. Suddenly through a moonlit cloud bank, the



With patient skill, the boom is lowered toward the B-47.





Boom operator monitors the B-47's position during contact.

efueling, the bomber can strike any target in the world, and return to its base.

bomber slid silently into view, its six jets throwing their eerie screams back into the night.

Depressing a small handle, the boom operator swung the nozzle of the aerial refueling boom into the air stream. As the bomber nuzzled under the tanker's tail, the boom operator radioed the bomber's aircraft commander:

SHELL NEWS

VOL. 27—No. 10 NOVEMBER, 1959

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; C. C. Combs, Treasurer; E. A. Hugill, Jr., 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.

ABOUT THE COVER

Laboratories at each Shell manufacturing location keep a constant check on the quality of raw materials and finished products. On the cover, Special Tester F. E. Dufresne is shown at work in the recently-completed Norco Refinery Laboratory. He is operating a lamp sulfur apparatus to determine the degree of sulfur in a sample of the Refinery's catalytic reformer feed stock. An article about the new Norco Laboratory starts on page 10.

In the cockpit, First Lieutenant Bernard Oden, aircraft commander of the KC-97, flies the tanker during a hookup. It is part of the tanker pilot's responsibility to keep the aircraft straight and level—and at a constant speed—during delivery. He keeps in radio contact with the boom operator and the bomber pilot, although refueling can be accomplished with radio silence by using light signals.

PEACE IS THEIR PROFESSION continued

"Fill her up, sir?"

"Roger," the call came back, "and don't forget the oil and water."

On an average of every three minutes this scene is repeated somewhere in the world by bombers and and tankers of the U. S. Air Force's Strategic Air Command. It is an important part of SAC's "deterrent force concept"—designed to maintain the capability of quickly launching a devastating retaliation against any nation that might attack the United States. This global concept requires bombers to fly nonstop to a target anywhere on earth and return to a friendly base—an impossibility with current aircraft unless the bombers are refueled in flight.

Aerial refueling began as a stunt 36 years ago when two U. S. Air Service pilots transferred 25 gallons of gasoline in mid-air. But following World War II, SAC transformed the stunt into a sophisticated technique of war. By the end of 1948, organized missions were being refueled by B-29 bombers which had been converted into tankers. With the delivery of jet bombers—notably the B-47—to SAC in 1951, the need became even more critical. Jets, although capable of greater ranges and speeds, consume much more fuel at lower altitudes than at normal operating altitudes of 40,000 feet and higher. In the time it takes a fully-loaded bomber to reach its operational altitude, much of its fuel supply has been used. To overcome this handicap by loading additional fuel would limit the weight of the bomber's most essential cargo—its nuclear payload.

To meet this challenge, SAC bought KC-97 tankers—the military version of the commercial Boeing Stratocruiser—and outfitted them to deliver fuel at the rate of 600 gallons per minute.

As SAC increases its operational force of faster bombers—such as the eight-jet B-52 and the supersonic B-58—the comparatively slow KC-97, although still SAC's workhorse, is being replaced by the KC-135 jet tanker. The military prototype of the Boeing 707, the KC-135 carries three times as much fuel and can operate at higher and more efficient altitudes.

Regardless of the type of aircraft used as a tanker, however, one requirement remains the same: high caliber crews to man them. To meet this, SAC conducts extensive training to turn out airmen who can find receiver aircraft anywhere in the world's skies and refuel them—despite altitude or weather.

"I guess it's pretty much a matter of routine now," said First Lieutenant Bernard Oden, a 29-year-old Air Force career pilot, who, with 2,000 hours in a tanker, might be considered a typical tanker aircraft commander. He is commander of a KC-97 tanker of the 68th Aerial Refueling Squadron at Bunker Hill Air Force Base near Peru, Ind.

"There are many factors involved in refueling a bomber—most of them pretty tricky—and they all must be weighed carefully. If not, you're in trouble. And my crew knows this."

He was sitting in the briefing room the day before a refueling and navigation training mission, just before the operations officer outlined the mis-

sion route and times.

"Here," said the operations officer, "is the rendezvous." He was pointing to a dot on a map in front of the room. "Hookup is at 15,000 feet at zero-four-one-one zulu." ("Zulu" is the code name for Greenwich Mean Time, which put the hookup at 4:11 a.m. Greenwich, or 12:11 a.m. Central Daylight Saving time. Due to the global nature of SAC operations, "zulu" time is always used.)

Listening to the operations officer and writing furiously was the navigator, First Lieutenant Joseph Fleck, whose responsibility it would be to get the tanker to the tiny spot in the vast sky where they would meet their receiver. The other crew members, First Lieutenant Gordon Smith, Co-pilot; Master Sergeant Thomas Smith, Flight Engineer; and Airman Second Class Lawrence Blakeley, Boom Operator, also sat in rapt attention.

The operations officer finished his instructions and scheduled a preflight route and weather briefing for the following day immediately before takeoff. By then the navigator would have set up his maps and preflight calculations. "An important part of the mission is flown right on the ground," said Lt. Fleck.

The air, on the afternoon of the flight, was crisp with autumn, as the crew returned to the briefing room. They quickly ran through the operational plans for the mission and listened to the weather officer's prediction of good weather. "There's a polar high moving in from Canada over the central states, but it looks like a nice flight—except for some icing at 10,000 feet, no problems at all."

"Thanks," said a crew member. "I feel better already."

"Yeah," said another. "I must remember to take my overshoes."

Following a quick stop at base operations to file their clearance and make a last-minute weather check, they boarded the bus to the flight line.

While the crew prepared for their mission, their payload—fuel—had already been supplied to their aircraft. Actually, preparations for this flight had begun sometime back at Shell's Wood River Refinery where JP-4 jet fuel is manufactured. Piped to the Zionsville, Ind., terminal, the JP-4 was shipped by tank trucks of the Indianapolis Marketing Division to the tank farm at the Bunker Hill airbase. From then until the fuel is pumped into the aircraft, it is the responsibility of the base's Petroleum, Oil and Lubricants Section.

In preparation for an alert or possible evacuation in case of enemy attack, all base aircraft are fueled the moment they land. To speed the fueling, the base uses an underground hydrant system, with 42 outlets located on the parking ramp. Hose carts meter and filter the fuel at 600 gallons per minute between the hydrant and aircraft.

"Fuel is one thing I don't have to worry about—POL takes care of that;" Lt. Oden said as he and his crew scrambled over the aircraft, giving it its final visual preflight examination—checking fuel lines, landing gears and flaps. Nothing is too small or insignificant to examine. Inside the aircraft, they turned on the auxiliary power unit, checking the electrical circuits and hydraulic pressures. A check of No. 2 engine showed

During a briefing before takeoff, the operations officer points out the refueling rendezvous and discusses other important details of the aerial refueling mission.

In serious concentration, the crew listens to instructions. Missing a point now could be serious during flight. Lt. Oden is at right.

Following the briefing, Lt. Oden and his crew board a bus that will take them to the flight line. Once there they visually inspect the plane before they take off.

Briefing his crew, Lt. Oden asks them to describe their duties in an emergency. Tanker crews are particularly alert to fire hazards.

insufficient oil pressure. A radio call to the tower sent a maintenance truck streaking across the ramp to the airplane. Within minutes the ground crew was working on the engine. Before long, they replaced the cover plate and the plane was ready to go.

Calling his crew to attention, Lt. Oden gave them their final briefing. Each member was asked to describe his duties in case of an air emergency. "Naturally," Lt. Oden said, "we're particularly cautious of fire. However, the crew has been educated to cope with any fire situation."

Ten minutes later the giant airplane taxied down the runway, its four huge propellers digging into the dusk. To the right, a faint ghost of a moon sat above the horizon casting silver reflections on the rows of B-47's lined on the parking ramp.

Some of these bombers—complete with weapons that could destroy any target complex in the world within hours—were on alert duty. At any time, the raucous cry of klaxon horns would send the alert crews racing in blue station wagons—topped by flashing red lights—toward the flight line and in a matter of minutes the bombers would be on their way to "war." Only later would the three-man crews, whose profession is peace, find out whether an alert is real. Sometimes alert drills terminate on the flight line, others after the planes have taxied down the active runway.

Alert bombers would leave the ground only if ordered to launch an actual retaliatory attack. The bombers would then fly to their respective "positive control points" — all well short of enemy territory. Unless they received further orders to proceed to their targets, the bombers would turn around at their positive control points and return to their home base.

The non-alert bombers and their crews do not sit idle. Between tours of alert duty they fly proficiency training missions. Later that night one of the non-alert bombers took off on a "routine" training flight. It was to be refueled by a tanker at a predetermined rendezvous. Time of hookup: zero-four-one-one zulu.

It was one hour to hookup when the tanker's intercom came alive. "Navigator, this is pilot, what is our estimated time of arrival at orbit?" Lt. Oden asked.

The intercom was silent except for a buzzy static. "Pilot, this is navigator," Lt. Fleck called back, "I have our ETA to orbit at zero-three-four-nine."

"Rog, out." Lt. Oden pushed his headset up from his ears and leaned back. The plane droned steadily toward rendezvous. "Before hookup," he explained, "we fly a sort of oval pattern at the rendezvous. Since the bomber's fuel supply is much more critical than ours, we always get there first. We go into orbit until the bomber is close enough for us to swing out directly in front." Then lapsing into the Air Force vernacular, he shrugged the whole thing off with: "It looks a little hairy, but it's really no sweat."

Actually the crew was approaching the point where it was "sweat." The navigator, watching two radar sets—one for ground position and another to pick up a signal from the bomber—was making rapid course calculations to come as close as possible to rendezvous. "Pilot, this is navigator," he snapped, "in one minute alter heading five degrees right."

As the aircraft swerved slightly in the turn, Airman Blakeley in the tail did not even notice. He was busy

Navigating toward the rendezvous, First Lieutenant Joseph Fleck adjusts a control on one of the KC-97's radar sets. The tanker has two sets: one for determining the aircraft's position, and the other to track and locate the receiving bomber. On the table, at right, are his maps and some of his navigation tools.

checking his equipment, making sure everything was ready.

Sergeant Smith, the engineer, sitting directly behind the copilot did not notice the turn either. He checked the tank pressures on a dial console that would shame the most imaginative science-fiction artist.

"Eight minutes to orbit," Lt. Fleck called.

Airman Blakeley turned the lights off in the cavernous aircraft. His instruments glittered red in the darkness. It was one minute to orbit.

With a slight sway, the giant tanker banked into its orbit. Lt. Fleck watched the green luminescent radar screen. Suddenly a small return appeared at the bottom. Somewhere in the darkness the bomber too picked up a signal. Contact had been made—it was a matter of time now.

It was two minutes to zero.

The tanker pulled around in its final orbit. Airman Blakeley threw himself face down on his foam rubber contoured pad, his left hand on the boom control.

As the bomber closed, the tanker pulled out of orbit, ahead of and above its receiver. It was Airman Blakeley's game now. Only 23, he has been operating booms since he was 20 and has 1,300 hours in the air. Now the success of the mission depended upon his steadiness and his depth perception.

The bomber, now, was in the "operating envelope"—the small area within which the 18-foot boom can operate. Looking only at a dim light near the receiver receptacle on the bomber's nose, Airman Blakeley literally lowered the boom. The grooved nozzle dropped cleanly into the receiver receptacle. He told the engineer: "We're in contact-made position," and Sergeant Smith started the pressure.

The time was zero-four-one-one and *one second* zulu.

During the eight minutes of contact, Sergeant Smith watched the pressure knowing that the nozzle, held secure in the receiver, would automatically break away if the pressure went too high. Airman Blakeley, meanwhile, kept the bomber in the envelope with terse radio orders. "A few feet to the left, back a little, down a couple." At one point the bomber came within six feet of the tanker's tail and the boom telescoped to accommodate it. Both pilots held steady at 300 miles per hour.

"That's it," Sergeant Smith called, as the tanks registered empty.

"Breaking away," Airman Blakeley said to the bomber, and the boom, balanced on little wings of its own, broke free. The bomber hovered a moment, then pitched out to the side.

"Hey, wait a minute," Airman Blakeley called, "don't you want your green stamps?"

"Forgot my book," the pilot answered. "Thanks anyway."

"Call again," Airman Blakeley said as the jet sound of the passing B-47 hit the airplane. In a moment it was gone.

"Boom secured," he called to the pilot.

"Let's go home," Lt. Oden said.

It was the edge of dawn when the big ship touched down at Bunker Hill. The year's first frost put an unaccustomed bite in the Indiana air.

The crew chief of the tanker was waiting at the foot of the stairs as the crew disembarked into the chill. "How did it go?" he asked Lt. Oden.

"Lousy," he answered. "We were one second late" ●

Monitoring the dials of a hose cart, Airman Second Class Donald Wallace, fuels a B-47 with JP-4 jet fuel from an underground hydrant. Aircraft are fueled when they land to prepare them for an alert or evacuation in case of an emergency.

The author of this article, SHELL NEWS Writer John Softness —an ex-Air Force navigator— boards a tanker before take-off.

SHELL PEOPLE in the news

SHELL OIL COMPANY MARKETING ORGANIZATION

J. G. Jordan, Vice President Marketing, has announced that the Seattle and Portland Marketing Divisions will be consolidated into a new Northwest Marketing Division headquartered at Seattle effective January 1, 1960.

A review of Shell's marketing operations in the Northwestern area of the United States conducted during the last several months has established that the consolidation of these two division offices will provide increased effectiveness of Company operations without disturbing the present high level of service to Shell's customers.

There are three basic reasons for this reorganization:

1. Over the years, Shell's Marketing districts have been built up as strong, autonomous units, exercising a high degree of independent judgment in dealing with the day-to-day business of the Marketing Organization.

2. Improvements have been made in Shell's manufacturing and transportation facilities in and to the Northwest. For example, the Anacortes Refinery now serves Shell installations in all the Northwest, and the Willbridge (Portland) Terminal serves parts of both the present divisions. More effective coordination of these facilities can be achieved from a single division office.

3. Modern developments in office methods and communications make it possible to provide administrative and service functions over a wide area.

Seattle was selected as division headquarters because it is strategically situated in the territory to be served and conveniently located to the Anacortes Refinery.

P. G. DREW

P. G. DREW, presently Manager of the Portland Division, will move to San Francisco as Assistant to Selwyn Eddy, Vice President West Coast Marketing Divisions.

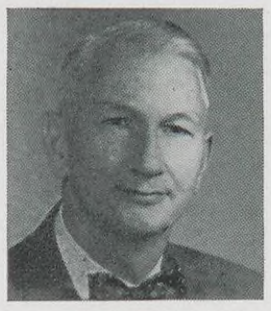
J. E. PENDERGAST, Manager of the Seattle Division, will remain in Seattle as Manager of the new division.

J. E. PENDERGAST

The following managerial appointments have been announced for the consolidated division under Mr. Pendergast:

POSITION	NAME	FORMER ASSIGNMENT
Sales Manager	J. G. WILLIAMS	Sales Manager, Seattle
Operations Manager	H. Y. SMITH	Operations Manager, Portland
Treasury Manager	H. C. DIXON	Treasury Manager, Seattle

J. G. WILLIAMS



H. Y. SMITH

H. C. DIXON

J. A. GOLASINSKI

SHELL OIL COMPANY EXPLORATION AND PRODUCTION ORGANIZATION

J. A. GOLASINSKI has been appointed Manager of the Gas Department of the Houston Exploration and Production Area. Mr. Golasinski, who holds a Bachelor's degree in civil engineering from Texas A&M College, joined Shell in 1937 as a Plant Stillman at the Iowa Gasoline Plant in Louisiana. In 1945, he joined the Gas Department at Houston as a Gas Tester. He was named Gas Engineer at the Sheridan Cycling Plant in 1950, Assistant Plant Superintendent in 1952 and District Superintendent-Gas later the same year. He returned to Houston in 1954 as Superintendent Operations of the Area Gas Department.

E. J. DUNNE

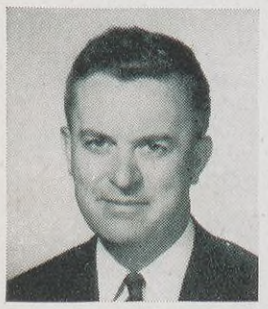
SHELL OIL COMPANY TRANSPORTATION AND SUPPLIES ORGANIZATION

D. B. Hodges, Vice President Transportation and Supplies, has announced that during January of 1960 the T&S organization on the Pacific Coast will be consolidated into one group at Los Angeles under the direction of A. C. Saul, Manager of Transportation and Supplies, Pacific Coast.

The following changes of assignment, effective Janury 1, 1960, are being made as a result of this reorganization:

F. C. HUNT

E. J. DUNNE, Assistant Manager, Traffic at San Francisco, will become Manager, Traffic, succeeding W. H. Adams who will retire December 31.



R. J. SULLIVAN

R. J. SULLIVAN, an Assistant Manager, Traffic, Head Office, will move to Los Angeles as Assistant Manager, Traffic, there.

F. C. HUNT, Assistant Manager, Crude Oil and Products Supply at Los Angeles, will become Manager, Crude Oil and Products Supply, succeeding L. J. Clisham who will also retire December 31.

T. D. MAY, Supervisor, Programs and Industrial Products at Los Angeles, will succeed Mr. Hunt as Assistant Manager, Crude Oil and Products Supply.

T. D. MAY

SHELL CHEMICAL CORPORATION

The following Treasury appointments have been made in the product divisions:

R. S. MacINTIRE

P. F. QUINN

NAME	NEW POSITION	FORMER POSITION
R. S. MacINTIRE	Manager Treasury, Plastics and Resins Division	Assistant Manager, Production Accounting, Head Office Financial Organization Shell Oil Company
P. F. QUINN	Manager Treasury, Synthetic Rubber Division	Assistant Manager, Financial Accounting, Head Office Treasury, Shell Chemical Corporation

news and views

C. E. DAVIS

C. E. "Gene" Davis, former Vice President Refining for Shell Oil Company, died October 2, 1959, at his home in Kirkwood, Mo. Widely known and respected throughout Shell and the industry, he was signally honored on his retirement from Shell in December, 1955, when he was selected as General Secretary of the Fifth World Petroleum Congress. In this capacity, Mr. Davis was responsible for coordinating 3½ years of planning for the International Congress which was attended by 4,500 oilmen from 53 countries in New York City last June.

Mr. Davis joined Shell in 1917 as a Shipping Clerk in the former Cushing (Oklahoma) Refinery. During his 38-year career, he held positions of responsibility in four of Shell's other refineries and in Head Office.

From 1951 to 1953, Mr. Davis was on leave of absence to serve with the Petroleum Administration for Defense, eventually becoming Associate Deputy Administrator of that agency.

He is survived by his wife, Mrs. Gladys F. Davis, a daughter, Mrs. Charles T. Morris, and three grandchildren—all of Kirkwood.

INNOVATORS NEEDED

HAROLD GERSHINOWITZ

Harold Gershinowitz, President of Shell Development Company, said in an address recently that more individualists and innovators are needed to strengthen our society.

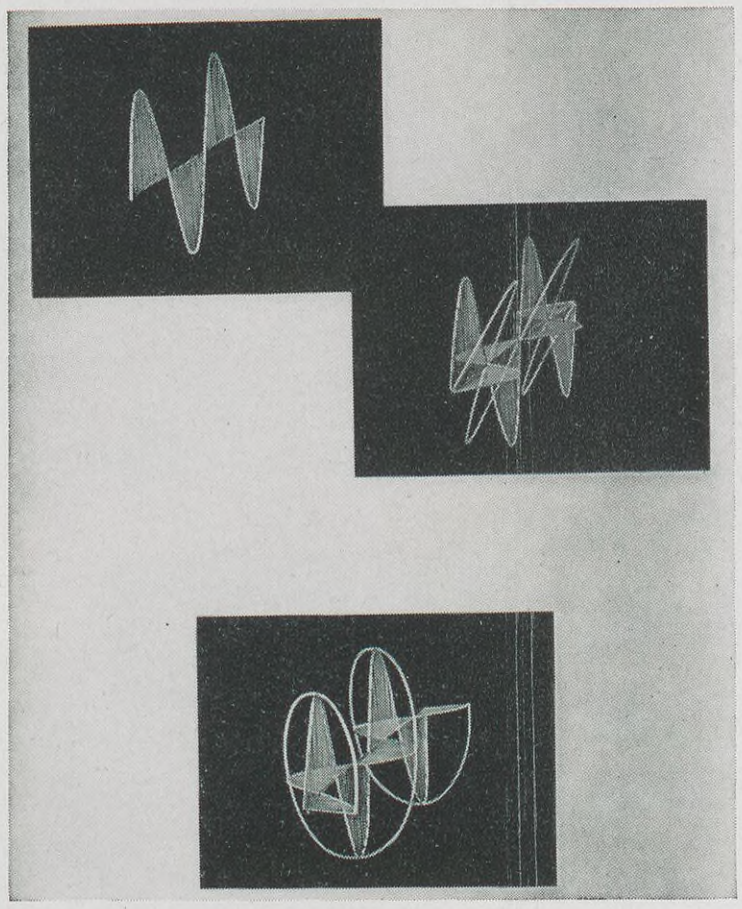
He spoke on "The Mind of a Scientist" before Shell Merit Fellowship Seminars for outstanding high school science and mathematics teachers at Cornell and Stanford Universities. Seminars are held each year at Stanford and Cornell for a total of 100 teachers. The seminars are supported by the Shell Companies Foundation, Inc., to strengthen high school training in chemistry, physics and mathematics.

"I am very happy," Gershinowitz said, "that I am living in a country with a culture which has for two centuries reveled in the new and is now leading the world in the arts as well as in science. I hope that the increasing trend toward conformity will not diminish the freedom we have traditionally allowed to the individual in our society.

"I feel quite strongly that if our organizational structure, be it corporate, governmental, academic or social, becomes so rigid that we cannot encourage, not to say even tolerate, the innovator and the rebel, we shall have reached the end of real creativity, artistic as well as scientific," he said.

The nature of scientific activity is such that the participant in it must be endeavoring to change the status quo, he said. Every new bit of data, every new theory or insight, invalidates to some extent what was known or understood before. Nonconformity and the questioning of authority are essential ingredients of innovation, he said, adding: "I hope that our educational processes can also be flexible enough to tolerate the inquisitive, skeptical, often rebellious student. . . . As a spokesman for industry I can assure you that we want and we need the individualist, the nonconformist, the rebel with a cause. As a citizen I hope that our social pressures and educational methods will continue to pick out such individuals and make it possible for them to preserve by innovation our freedom and our way of life."

PHOTOGRAPHIC HONORS



Photographic work of Emeryville Research Center was honored recently at the National Industrial Photographic Conference.

All three Emeryville entries submitted were accepted for Conference exhibit and two of them were given further honor by acceptance for the loan collection of the Professional Photographers of America, Industrial Division.

One of the entries (shown above), a composite of three photographs, received the second highest point total in the Conference's photographic exhibit—44 points out of a possible 50. This entry, a four-color lithographic print in the original, is of three models of polarized light, constructed by R. E. Fraatz, Senior Laboratory Assistant, Lubricants General Department.

The photographs represent the combined efforts of six members of the Photographic and Duplicating Department: Manager P. Jowise, Supervisor E. Singleton, Senior Photographers E. E. Nyberg, D. W. Cabrall and R. I. Frehse, and Photographer M. B. Chan.

SAFETY AWARD

The Odessa District of Shell Pipe Line Corporation's West Texas Division last month received an Award of Honor from the National Safety Council for operating four million man-hours without a lost-time injury.

The record was accomplished over a period of 11 years, starting January 16, 1948. Four million safe man-hours was reached last July 18 and the safety record is continuing. Available statistics indicate that the record has not been equaled by a comparable group in a pipe line company in the United States.

E. C. Reece, Odessa District Superintendent, said: "The record can be attributed to the sincere effort of the men and women and their interest in their fellow worker's safety." The number of employees in the Odessa District at present is 86.

"WHAT'S ALL THIS NONSENSE ABOUT YOU FIRING MY HUSBAND?"

Burning tests, like the one being made here by Tester Recorder James Weber, are among the tests made on kerosine at the Norco Refinery Laboratory. Oddy enough, this modern Laboratory has found that the use of an old-fashioned kerosine lamp is the best method of determining how cleanly samples of kerosine burn.

QUALITY C

Employees in Norco Refinery's new

TY CONTROL AT NORCO

Refinery's new laboratory keep a constant check on quality specifications of Shell products

TODAY'S modern refineries and chemical plants are equipped with automatic process units to manufacture petroleum products, but it takes people to maintain and improve the quality of the products.

At each Shell manufacturing location, chemists and technicians are always on duty to assure that the high standards of quality and uniformity of Shell products are maintained, and improved where possible.

They work in "control" laboratories equipped with the latest facilities for testing products as they are manufactured.

Shell's newest manufacturing laboratory was completed recently at the Norco Refinery, where about 100 employees conduct a continuous program of product testing. The laboratory is equipped for testing motor and aviation gasolines, kerosine, jet aviation fuel, diesel fuel, domestic heating oil, asphalt and other products manufactured at Norco. Some of the facilities, and the people who use them, are shown in the pictures on these and the following pages.

In the new Norco Laboratory, tests are made at regular intervals on samples gathered from all the Refinery's

In the knock-test section of the Norco Laboratory, Special Tester W. A. Walker, foreground, uses a single-cylinder test motor to determine the octane rating of a Super Shell gasoline component. At right, Special Tester G. H. Trepagnier conducts a similar anti-knock quality test on a sample of an aviation gasoline component.

The modern Norco Refinery Laboratory is shown in the photo at left with some of the Refinery's crude and product lines in the foreground. The air-conditioned building contains 29,000 square feet of floor space, which is divided into 65 rooms to provide separate facilities for various types of laboratory tests and experiments.

Laboratory facilities boost efficiency in testing product samples

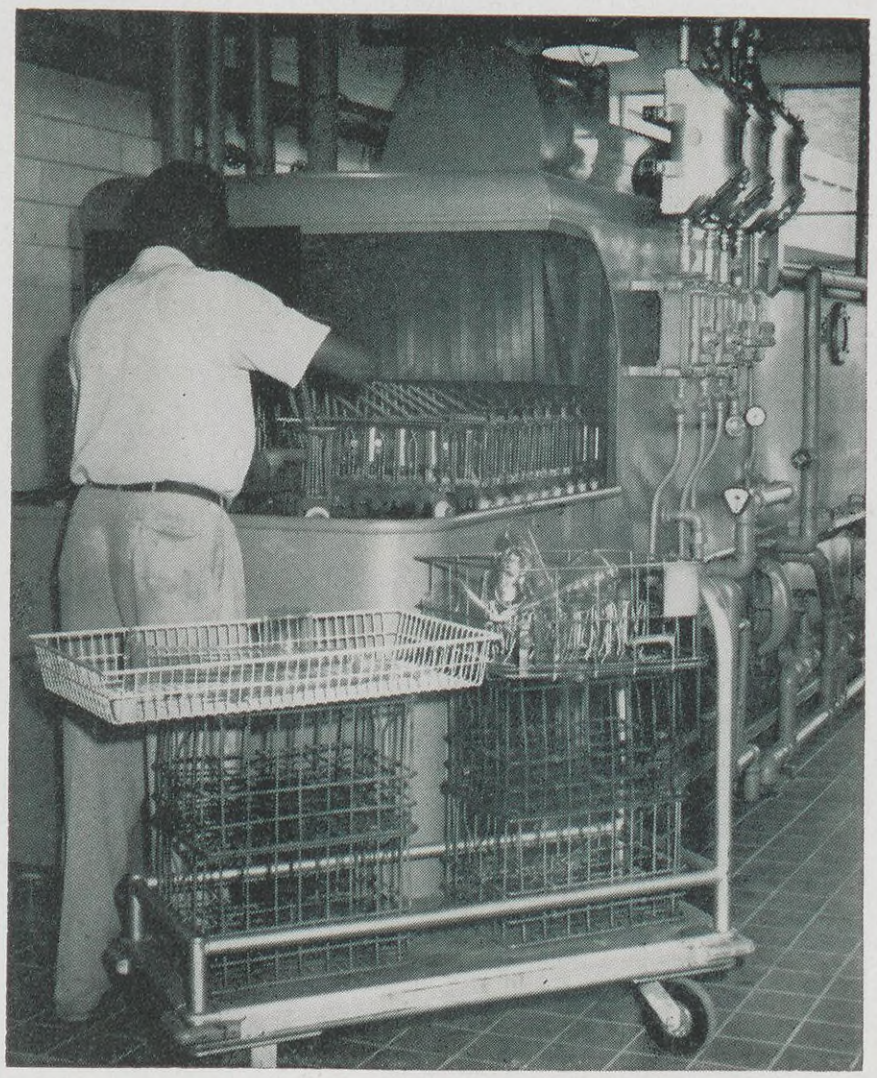
operating units to determine whether the various manufacturing processes are performing as planned. In addition, samples of crude oil, process chemicals and other raw materials are tested before they are used.

The laboratory not only keeps a close check on product quality and operating efficiency at Norco, but also correlates testing with similar laboratories at other Shell refineries. For example, Norco and Wood River might exchange samples of gasoline, each testing the other's product to double-check Shell's rigid specifications. On request, the laboratory also analyzes samples of products received at Shell marketing terminals in the southeast to determine whether their quality was maintained during shipment. Competitors' products also are tested regularly to see how they compare with Shell products.

Laboratory facilities at Norco were formerly located in several different buildings. Now, approximately 29,000 square feet of laboratories, offices and attendant areas are housed in one building. This arrangement boosts efficiency and minimizes delay in handling hundreds of product samples tested daily.

The new building has an analytical laboratory, a catalyst testing laboratory, a spectroscopy laboratory, a distillation laboratory in addition to laboratories for testing Shell's major products. It also has space for installation of an experimental laboratory and pilot plant equipment as required. In these and other sections of the new Norco Laboratory, Shell people are working 24 hours a day to further the good name Shell has gained for its quality products ●

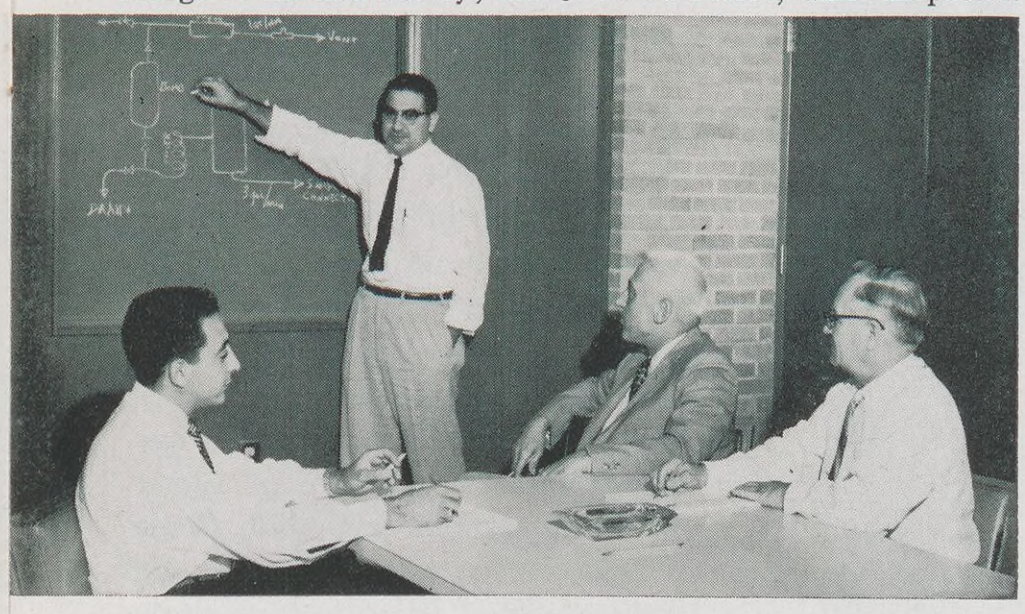
Two stenographers are shown at work above in the office of the new Norco Refinery Laboratory. They are Mrs. Mary Ann Fernandez, left, and Mrs. Barbara Montz.



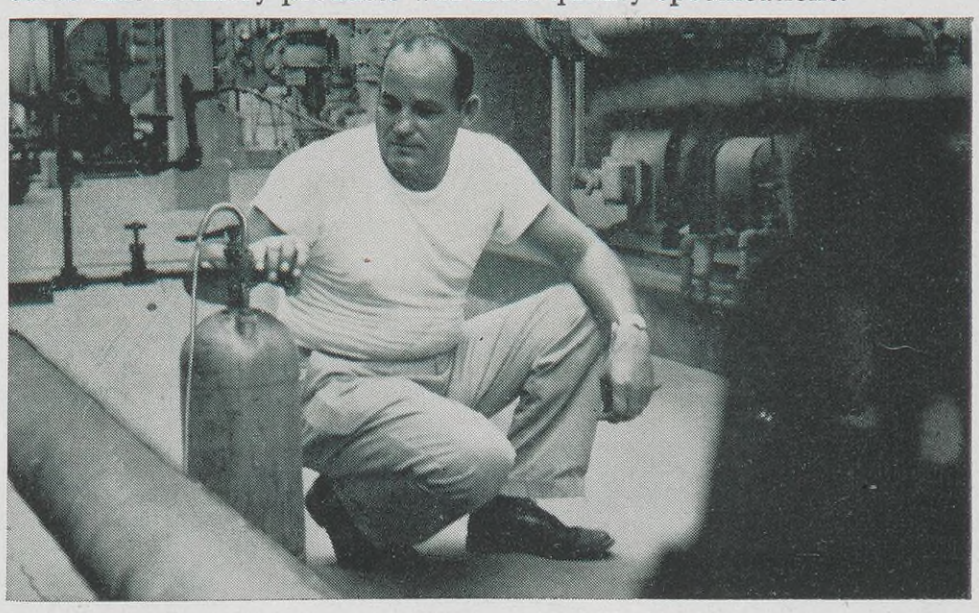
Large quantities of glassware are used in the Laboratory. Here, L. A. Anderson operates a new high-speed bottle washing machine that is capable of washing 400 bottles an hour.

CAT CRACKER 'TEST RUN'

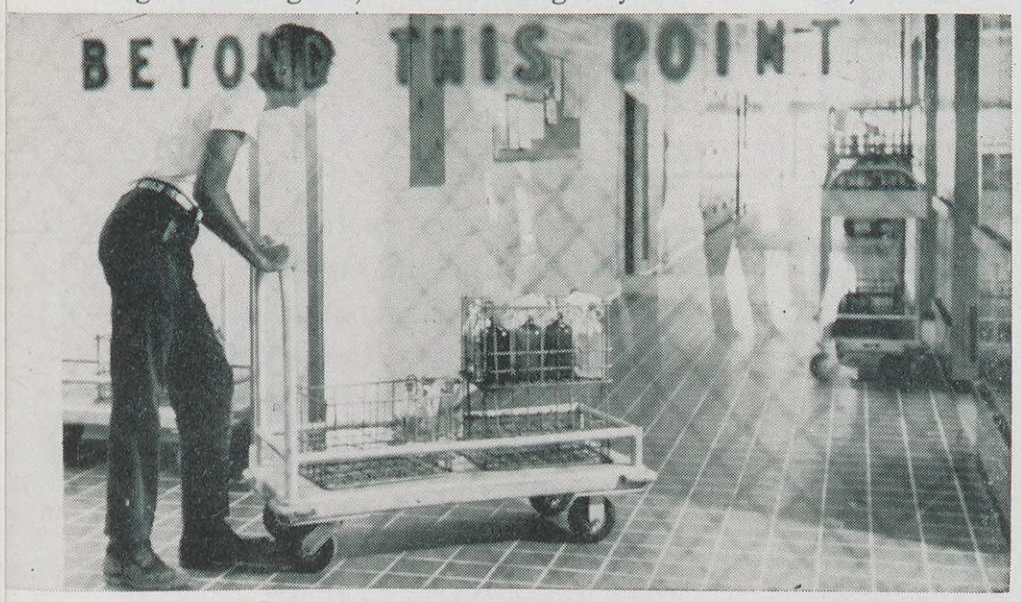
Laboratory staff members discuss an operating problem before starting a "test run" of Norco's catalytic cracker. At the blackboard is J. A. Perregrino, Chemist-in-Charge (Physical-Chemical). Seated, left to right, are R. J. Hatem, Chemist-in-Charge (Analytical-Experimental); W. N. Day, Department Manager in charge of the Laboratory; and J. A. St. Pierre, Chief Inspector.



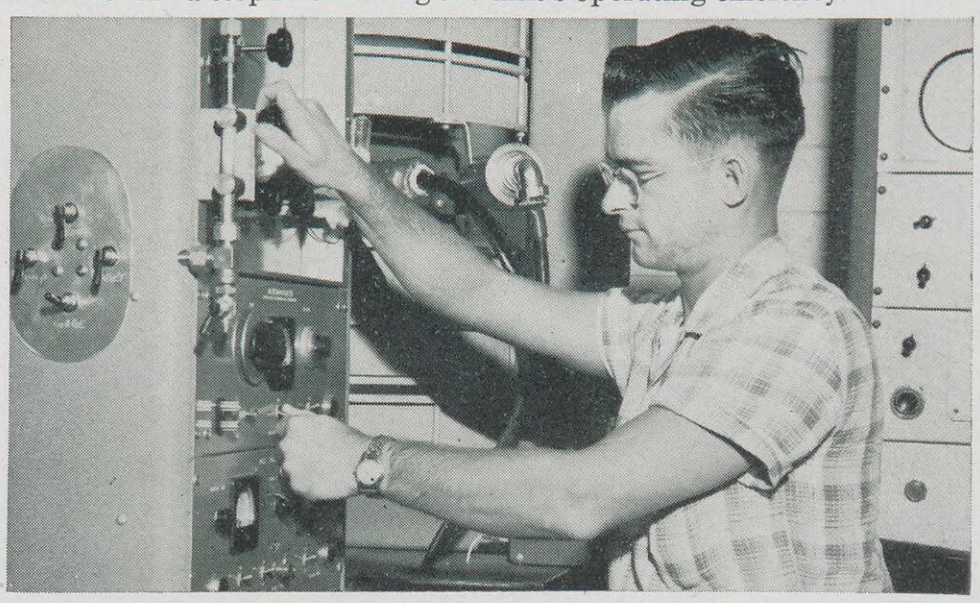
The first step in making a test run is to take samples of liquids and gases from various locations on the cat cracker unit. Below, Special Tester S. J. DeRoche obtains a sample for delivery to the Laboratory. An analysis of the samples aids in determining the efficiency of the cat cracker, and insures that Refinery products will meet quality specifications.



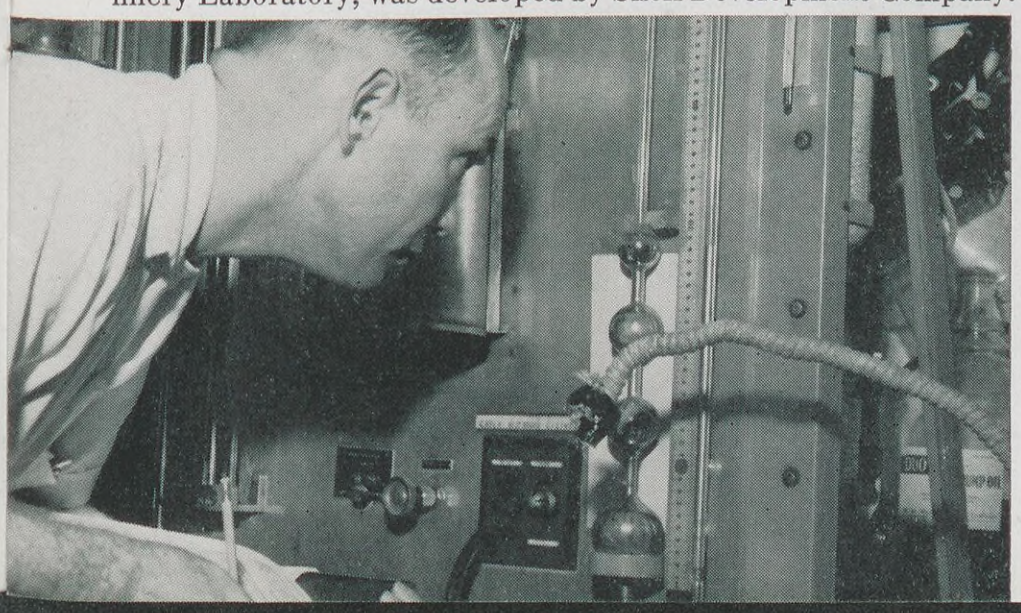
A collection of samples which were taken from several points on the cat cracker are wheeled into the Laboratory by Tester J. R. Becnel, Jr. They will be distributed to various sections of the Laboratory for testing. The photograph of Becnel was taken through a glass partition in the Laboratory. A portion of a sign on the glass, "No Smoking Beyond This Point," is shown.



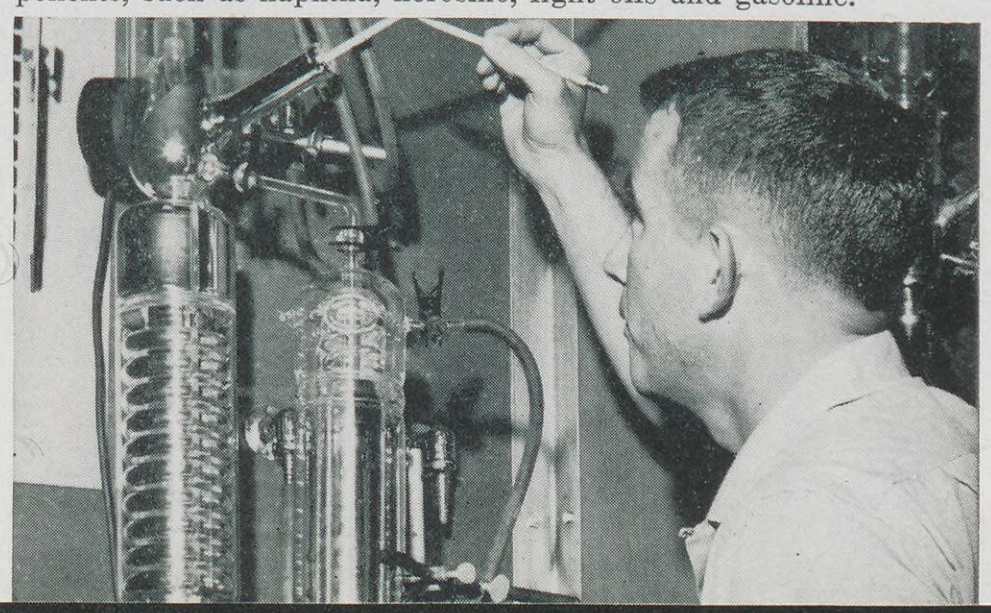
A new instrument in the Refinery Laboratory is a mass spectrometer, used to analyze the components of gases and low-boiling hydrocarbons. It can check as many as 22 individual components in 10 minutes. Below, Chemist D. R. Ingram uses the instrument to analyze a gas sample from the cat cracker—a step in checking the unit's operating efficiency.

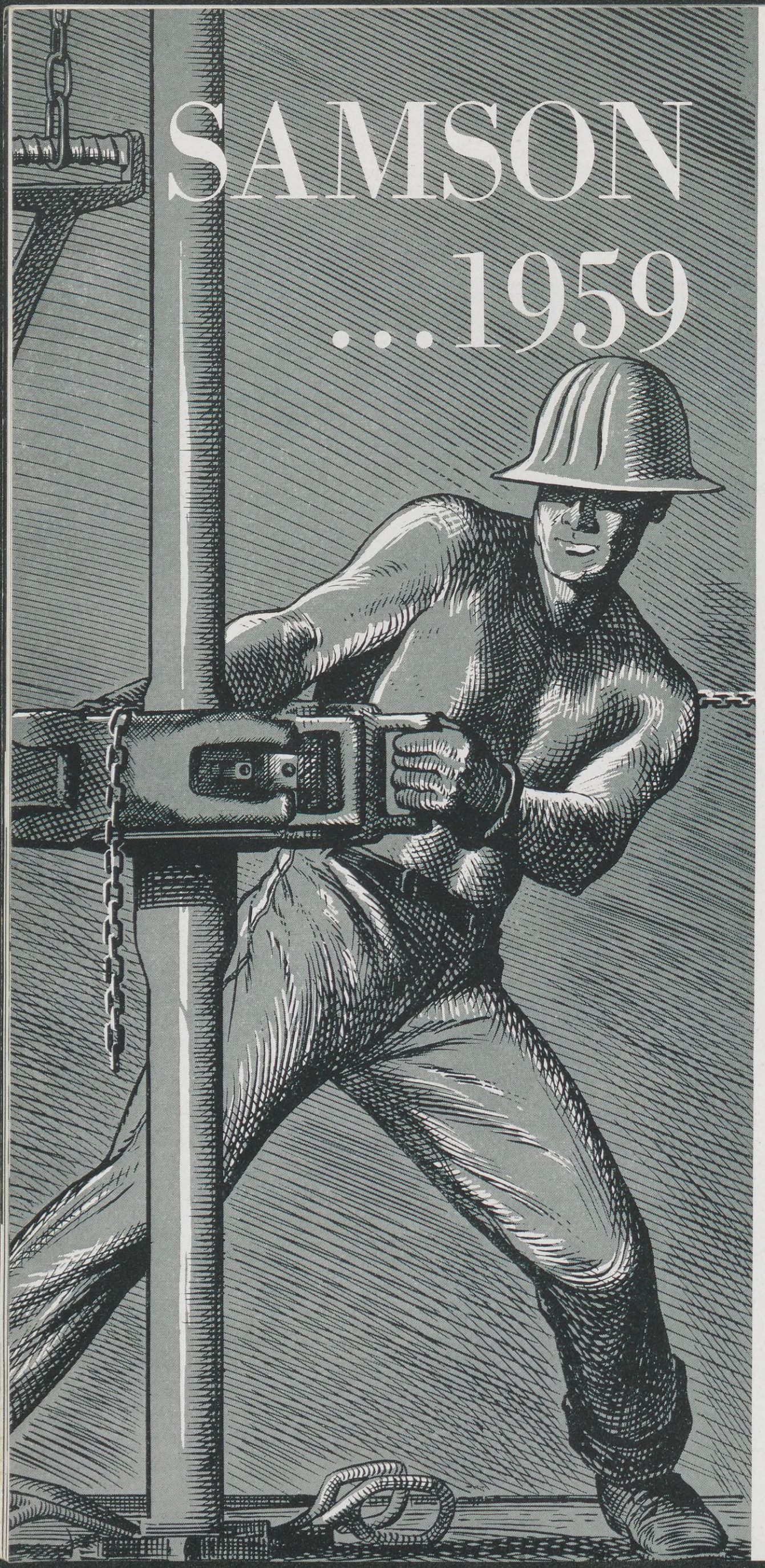


The quality of the catalyst used in the cat cracker may be affected through extended use or by abnormal conditions in the unit. Here, Chemist R. J. Goodspeed checks the effectiveness of the catalyst by determining the surface area and pore volume of a sample. The apparatus he uses, like others in the Norco Refinery Laboratory, was developed by Shell Development Company.



Another test made in checking the operation of the cat cracker is a high-temperature distillation test of a sample taken from the Refinery stream which passes through the unit. This test is being made below by Special Tester M. J. Trepagnier. It will indicate percentages of the stream's components, such as naphtha, kerosine, light oils and gasoline.





IT seems that for every Samson, there's always a Delilah.

Take our own Uncle Sam. There are those who, in the name of "reform," would shear away *his* strength, too.

Break up big business, they say—and in some cases they actually succeed. So what happens?

Something wonderful dies. Something that has given America the highest level of living in history—the magic of high and increasing productivity.

This is the principle of progress: more and better output per man-hour. But for its fullest expression, it requires large investments in modern power machines, methods and skills. And only big business can afford such heavy costs.

It follows then, that the break-up of the big industrial company almost always results in a loss of productivity.

This is important to the thousands of small businesses that supply materials, parts and sub-assemblies to the big organization. If the big fellow suffers, so do they.

Petroleum Demands Bigness

The size of industrial units is determined by (1) public demand for their services, and (2) the technical requirements of their operation. The petroleum industry offers a good example. It has to be big for both reasons.

Enormous amounts of capital are needed to discover and produce crude oil, then transport and process it, and market the finished products.

The U. S. petroleum industry has spent $72 billion for property, plant and equipment during the past decade. In recent years petroleum has made one-sixth of all capital investments by business in the United States, while in the free foreign areas it has accounted for one-third. Current estimates indicate that, to meet the demand of the next 10 years, the industry will have to double its outlay.

A single 30-inch pipeline 1,300 miles long costs $200 million. The price of a 60,000-ton tanker is $17 million. A big 200,000-barrel refinery, designed for maximum efficiency, involves another $200 million investment.

No industry seeks better methods more earnestly. Over $300 million is the annual bill for petroleum research. This covers every aspect from more delicate prospecting instruments and more efficient drilling rigs, to new ways of "cracking" the oil molecule for higher yields, and new additives to step up the power of motor fuels.

In petroleum, bigness and competition go together. The industry is composed of more than 42,000 separate companies. And of the 181,000 service stations, over 90 per cent are owned and operated by local independent business men.

Productivity—Key to Plenty

Modern economists all know that the prosperity of any nation is in almost direct proportion to the amount of horsepower and brains it puts into its production.

This is no new discovery. Half a century ago a British trade union observer noted that American machinery "saves the workman enormous manual exertion, raises his wages, tends toward a higher standard of life, and further, rather creates work than reduces the number of hands employed."

Thereafter output per worker rose at about two per cent each year, and during the past 15 years by three per cent annually.

Total production has been multiplied upwards of five times since 1900. Meanwhile American living standards have doubled, and hours of work have been greatly reduced. Despite a big and rapid increase in the population, the numbers employed have increased proportionately much faster.

All this has happened because big business and small business have worked together. Big business has supplied the vast sums needed to tool up for mass production, and to run it efficiently. Small business has helped by providing thousands of components. And everybody has shared the benefits.

High productivity is an American invention. We started it, and by using it to the utmost, we have grown great.

Nor can we afford to stop now. For we are engaged in a world-wide struggle with an adversary who is doing all he can to adapt our big productive ideas to destroy us.

Surely in such critical times as these, we will not permit any latter-day Delilahs to cut away the source of our strength.

THOSE WHO TRY TO CRIPPLE BIG BUSINESS JUST BECAUSE IT IS BIG DISREGARD THE ECONOMIC FACTS OF LIFE. IN YOUR OWN INTEREST, DON'T LET SUCH ATTACKS GO UNANSWERED.

SPEAK UP!

Shell Chemical Corporation

November—1959

Shell Chemical Corporation Plastics & Resins Division Organization

(1) ALSO HAS LIAISON WITH UNION TECHNICAL SERVICE LABORATORY ON PRODUCTS APPLICATION.

(2) EXERCISES FUNCTIONAL GUIDANCE OVER ACTIVITIES AT UNION TECHNICAL SERVICE LABORATORY.

(3) SINCE THESE ORGANIZATIONAL UNITS ARE AN INTEGRAL PART OF THE PLANTS/LABORATORIES, THEY ARE SUBJECT TO LOCAL ADMINISTRATIVE CONTROL, RULES AND AGREEMENTS.

General Manager — M. Buck

Manager Operations — D. B. Luckenbill

Manager Research & Development — F. M. McMillan

Manager Treasury — R. S. MacIntire

Manager Marketing — W. C. Lowrey

Manager Process Development — J. F. Roorda, Jr.

Manager (1) Product Development — D. S. Herr

Manager (2) Sales Development — J. G. Dickerson, Jr.

Sales Manager (2) — D. P. Jones

Manager (3) Adhesive Dev. Dept. (Shell Point) — T. G. Nock

HOUSTON PLANT

PLASTICS & RESINS DIVISION (3)

RESEARCH & DEVELOPMENT LABORATORIES (HOUSTON) (TORRANCE)

PLASTICS & RESINS DIVISION (3)

UNION TECHNICAL SERVICE LABORATORY

PLASTICS & RESINS DIVISION

District Manager Eastern (New York) — D. M. Neely

District Manager East Central (Cleveland) — D. F. Bradley

District Manager Central (Chicago) — J. R. Brady, Jr.

District Manager Western (Los Angeles) — G. F. Metzinger

Shell Chemical Corporation

November—1959

Shell Chemical Corporation
Synthetic Rubber Division
Organization

General Manager
J. P. Cunningham

Manager Manufacturing
R. L. Kittle

Manager Research & Development
F. W. Hannsgen

Manager Treasury
P. F. Quinn

Sales Manager
J. E. Toevs

Manager Process Development
V. L. Keldsen

Research Director
J. Anderson

Manager Tech. Service
R. D. Sullivan

Assistant Sales Manager
S. T. Raycraft

Manager Distribution
H. E. Sparks

Plant Manager Torrance
G. S. Williamson

District Manager Eastern
A. D. Abshire

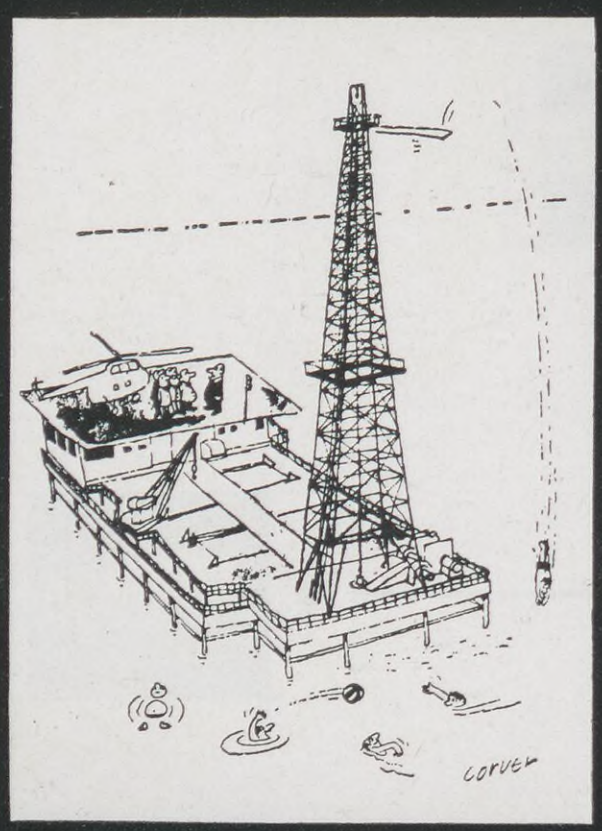
A group of Dutch cartoonists have found fun in oil. And their combined efforts appear in the copyrighted book, "Oil Fun," published by Bataafse Internationale Petroleum Mij. N.V., The Hague.

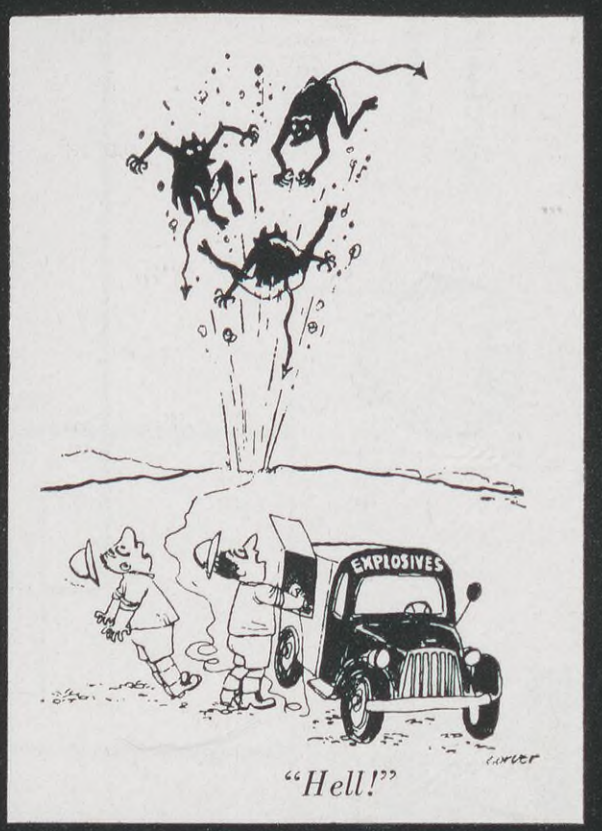
An introduction to the book reads:

"There is lots of fun in oil, when you come to think of it. The industry that started in the U. S. a century ago is still young at heart. And Holland is part of its history.

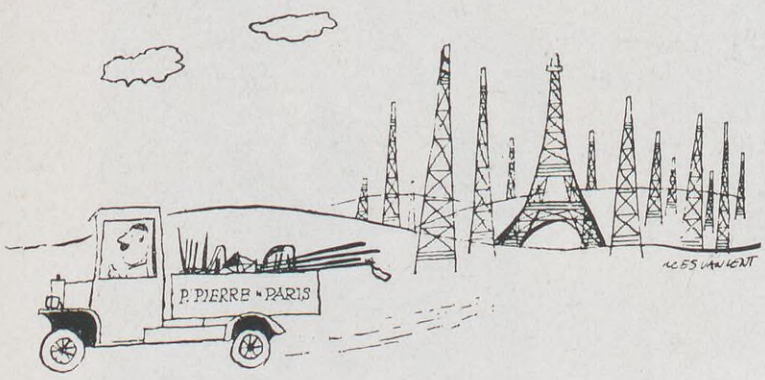
"The Dutch started looking for oil in the Far East, back in the eighties. Then they set up headquarters in The Hague and explored all over the world. And finally, after more than sixty years, they struck oil in their own back yard."

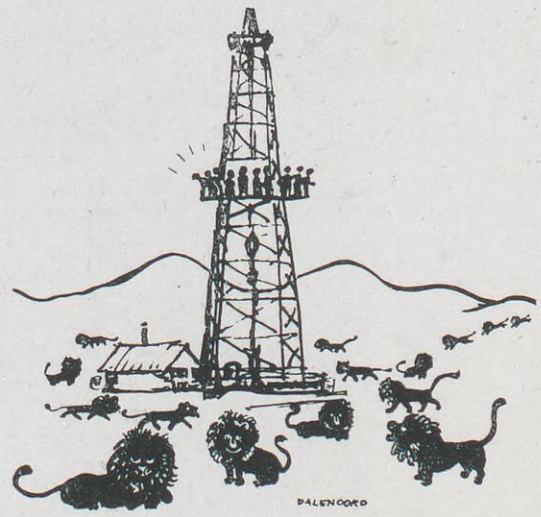
Shell distributed "Oil Fun" at the recent World Petroleum Congress held in New York, and it quickly became a collector's item. To share the fun and because no further copies are available, SHELL NEWS presents some of the cartoons from the book on this and the following pages.

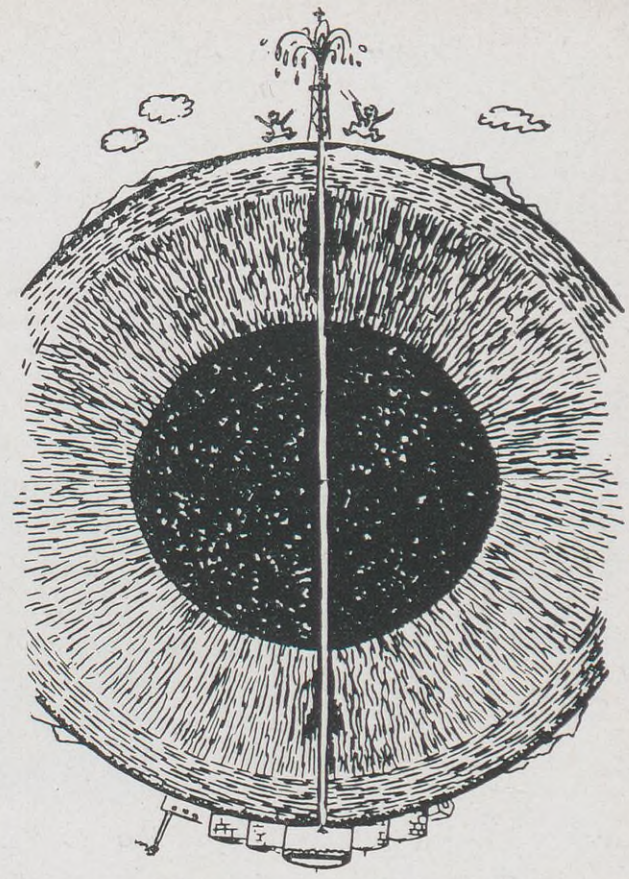




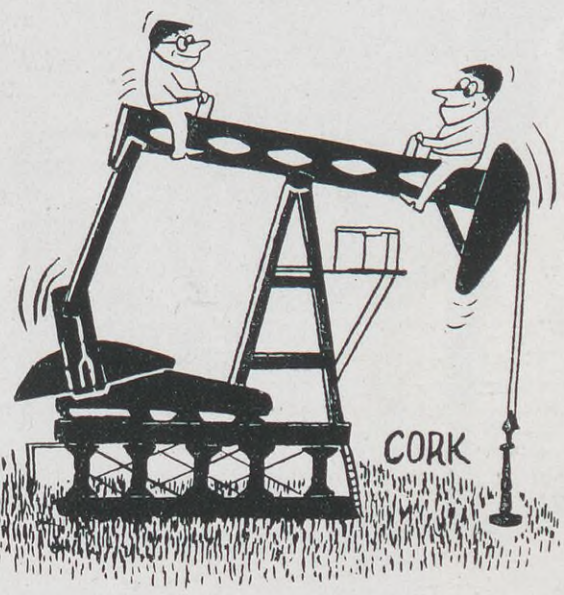
"Hell!"



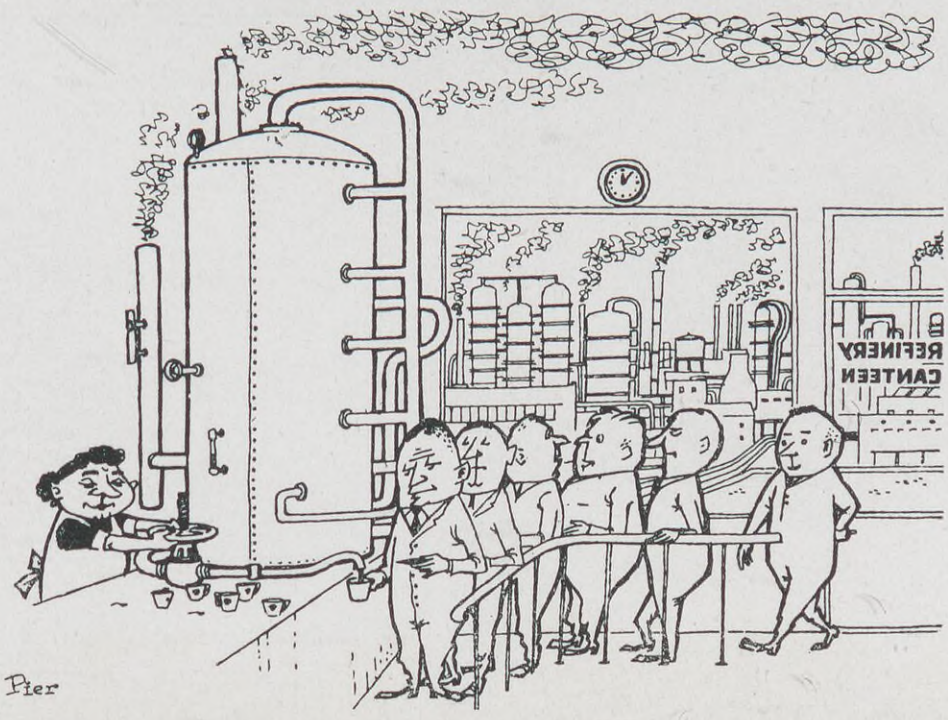


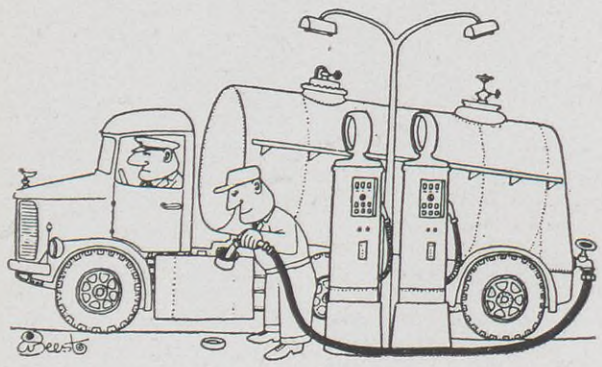


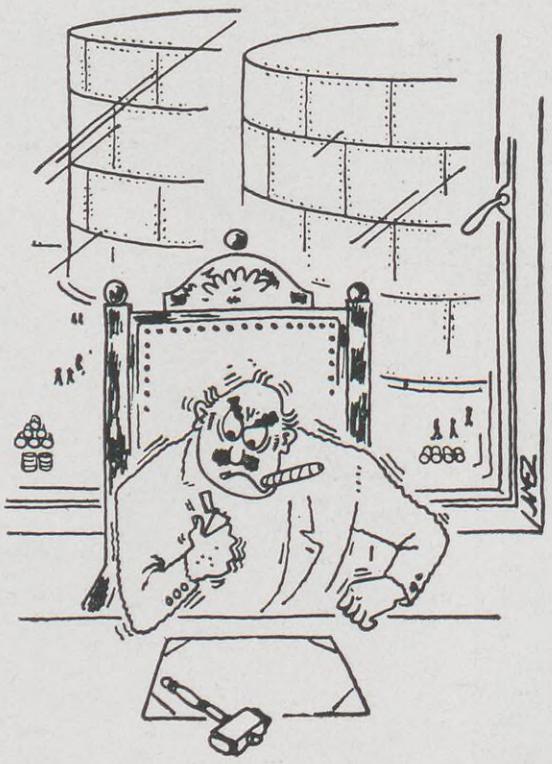
The deepest well on earth

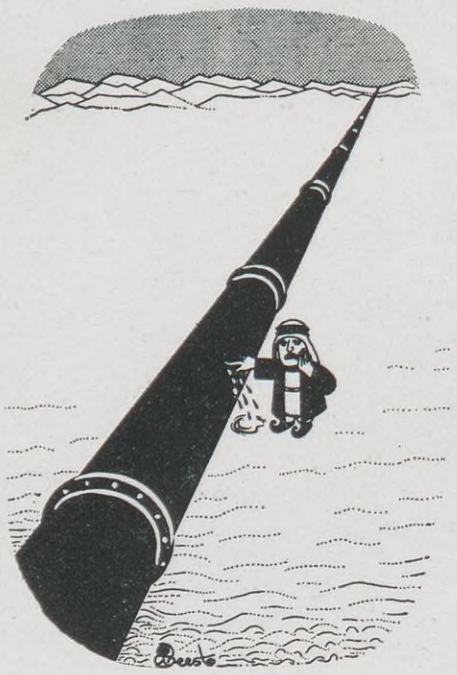


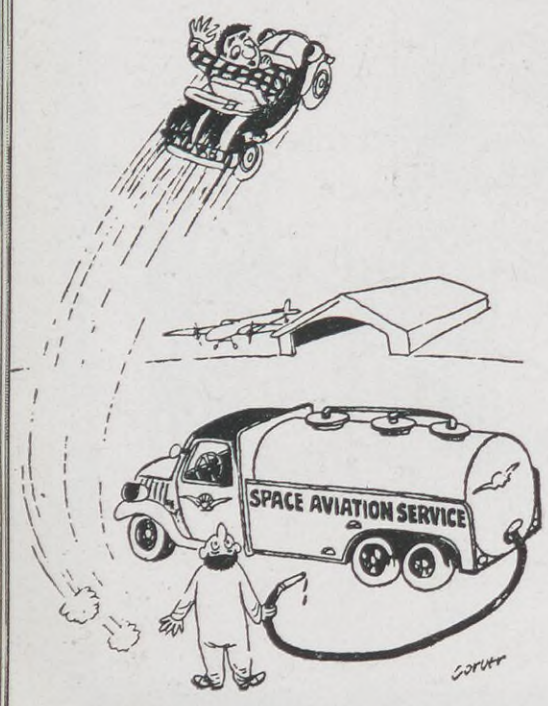
"Mr. Carelli, try to forget you were born in Pisa!"











"Feeling any better?"

Approved for publication by all departments concerned

THE WAR ON WASTE

By J. STANLEY CLARK

Petroleum conservation is achieved by setting ground rules for producers and by improving recovery methods.

J. Stanley Clark, author of this article which is reprinted from the American Petroleum Institute Quarterly, is a native of Oklahoma. He holds a Ph. D. degree in political science from the University of Wisconsin and is now Budget Officer at Tinker Air Force Base, Oklahoma City, and a member of the faculty of Oklahoma City University.

Mr. Clark's writings on regional topics have appeared in southwestern newspapers, the New York Times, national magazines and historical publications. He is the author of the books, "Open Wider, Please" (1955) and "The Oil Century" (1958), both published by the University of Oklahoma Press.

PETROLEUM conservation has made possible the recovery of billions of barrels of oil that might have been trapped in the earth forever.

Although it had been a lively issue for almost three decades, conservation really got its start in the early 1930's. The time for action was overripe.

Wasteful operating methods netted only 20 per cent of the potential oil. Wells were drilled almost on top of each other; pressure was lost through lack of operational coordination, and gas, which would have been invaluable in controlled oil recovery, was wastefully flared into the air.

As early as 1900, the U. S. Supreme Court ruled that a State, in the exercise of its police power, could validly regulate production of oil and gas so as to prevent one producer from com-

mitting waste or taking an undue proportion of the oil and gas from a common source of supply. This was a recognition of the "doctrine of correlative rights."

The Oklahoma legislature went a step further in 1915, when it enacted a conservation measure that not only included comprehensive definitions of waste, but also contained a unique provision to limit production to market demand. Four years later, Texas passed a broad waste-prevention and proration law. In the next few years, voluntary proration was attempted in several states, but with little, or only temporary, success.

When the Oklahoma and Texas laws were invoked in an effort to curb overproduction in the critical depression year of 1931, governors of the two states had to call out National Guard troops to enforce shut-down orders.

The following year, the U. S. Supreme Court settled the chief point at issue by ruling that limiting production to market demand is "a reasonable requirement for the prevention of waste and the protection of co-equal rights of the owners of lands over such pools." It held that "the effect, if any, on price was merely incidental."

Why, it might be asked, did not the Federal Government, so dependent upon oil for national defense, step in and regulate production? The answer is simply that the Federal Government has no power under the Constitution to deal directly with the conservation of oil and gas found in the several states. Such power belongs exclusively to the states.

Thus, if conservation was to be carried forward, it was up to the states to do it. Moreover, it had become apparent that concerted state action was necessary for a really effective conservation program. Efforts in this direction centered in the Mid-Continent Area and the Gulf Coast Southwest, a region accounting for 79 per cent of the nation's production.

A preliminary step toward cooperative action had been taken in June, 1929, when governors or their representatives from oil and gas producing states met at Colorado Springs. An Oil States Advisory Committee was created to work out a program and met several times during 1931-32.

Meanwhile, pressure was also building up in Washington for measures that would stabilize production. Under the NRA (National Industrial Recovery Act), enacted in 1933, the petroleum industry, along with virtually all other business, was subjected to some regulation. Then, in 1935, the same year the NRA was struck down by the U. S. Supreme Court, the Connally "Hot Oil Act" was passed. This law prohibited the movement of oil in interstate and foreign commerce if produced in contravention of state law.

Later the same year, Congress provided a further incentive for concerted state action in conservation by passing the Interstate Oil Compact Act. This law provided a framework for voluntary cooperation among the oil producing states. Membership in the Compact automatically obligated states to assume responsibility for enacting and enforcing laws to check the waste of oil. The Interstate Oil and Gas Compact Commission was set up solely as a fact-finding and technical agency—not as a policing authority.

State oil conservation laws have two basic objectives:

- To protect and increase the ultimate recovery of the nation's oil reservoirs, and
- To safeguard the property rights of every landowner in a pool.

As an example of how rigorously conservation controls are enforced, Texas—which produces nearly 40 per cent of the nation's oil—rarely permits more than 200 days of oil production a year. In fact, in August, 1939, its fields were on a 12-day producing schedule, and in April, 1959, on an 11-day schedule.

The Compact Commission, which maintains a central office in Oklahoma City, represents 27 member- and four associate-member-states. It holds semiannual meetings attended by industry and government leaders. Advisory committees keep members informed of improved industry practices. A legal committee has prepared model conservation statutes. For example, the North Dakota Conservation Act of 1941 was based upon committee recommendations.

Limitation of production to market demand appears in the statutes of 10 states. Nine states provide for compulsory unit operations; six states sanction voluntary agreements. Principal producing states provide for protection of reservoir pressure through oil-gas and well-spacing legislation.

When, by Congressional direction, the Attorney General of the United States recently made a thorough investigation of the purposes and accomplishments of the Commission, he paid tribute to the agency's reputation and influence, and cited it as a "unique example of interstate cooperation on a wholly voluntary basis."

Technological advances have contributed significantly to the greater recovery of oil. In some cases – although still isolated instances—recovery has reached as high as 80 per cent through improved recovery techniques.

The new trends in technology have come from knowledge gained from bottom-hole pressure, as well as advances in recovery methods, such as

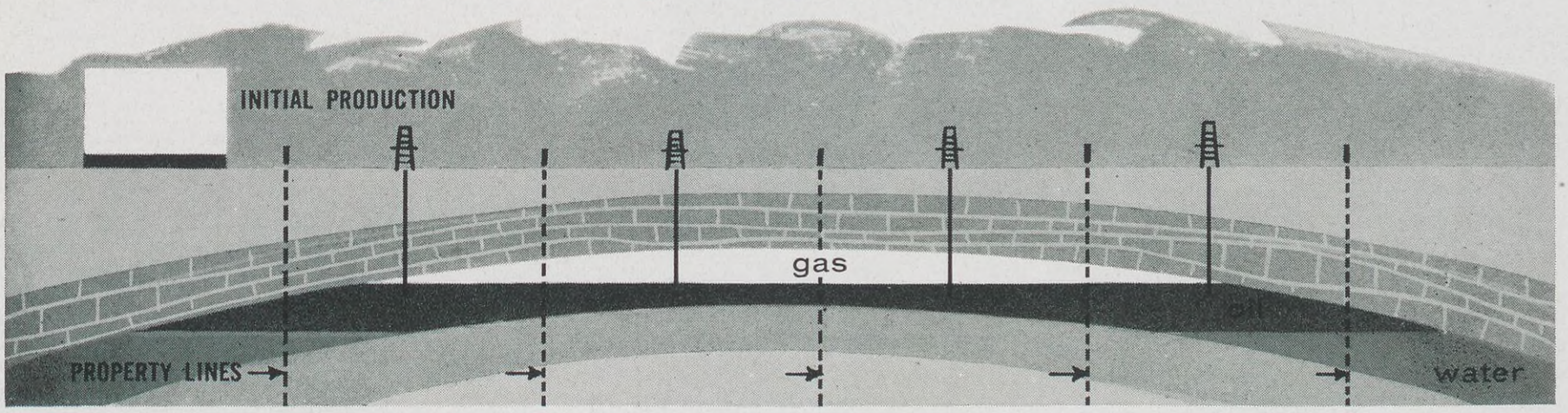
sand fracturing, the re-injection of gas for pressure maintenance, and fluid injection.

Water flooding as a means of increasing a reservoir's yield has been constantly improved since the 1930's. Recycling—the injection of gas under high pressures into a well—also has succeeded in boosting the recovery of oil as well as rich hydrocarbons, such as butanes and propanes. The dry gas "soaks" up the hydrocarbons which are "stripped" from it when it returns from the reservoir. The stripped gas is then returned to the well.

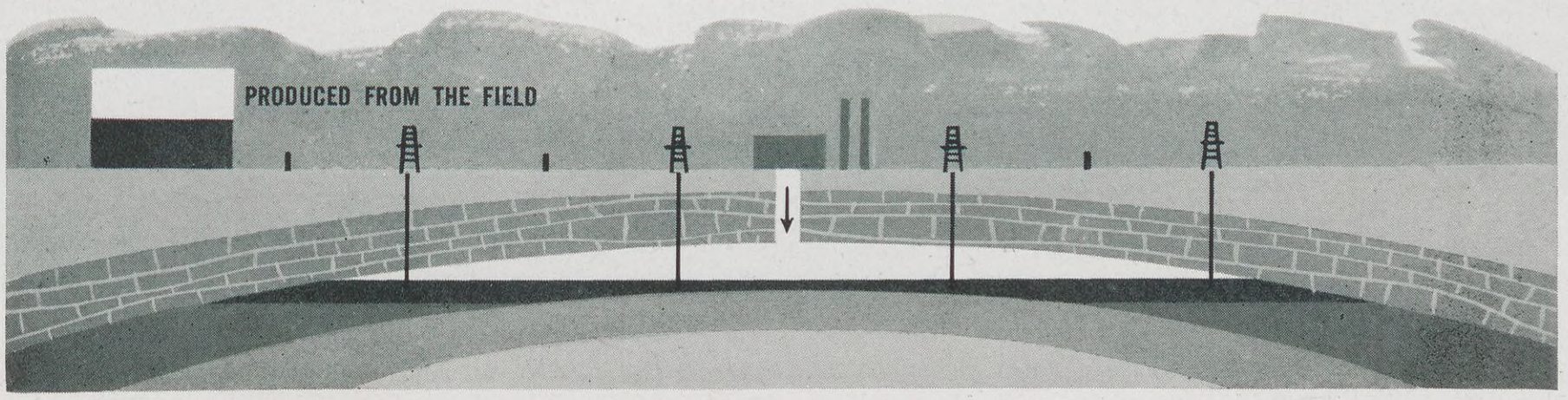
Reservoir pressure maintenance is another important development in conservation. Air, gas, water, or another fluid is injected into a field soon after it begins producing to keep its natural pressure from dropping.

Thus, by advanced technology and modern management methods, as well as by laws, rules, and regulations, industry and government are working together to safeguard a vital natural resource ●

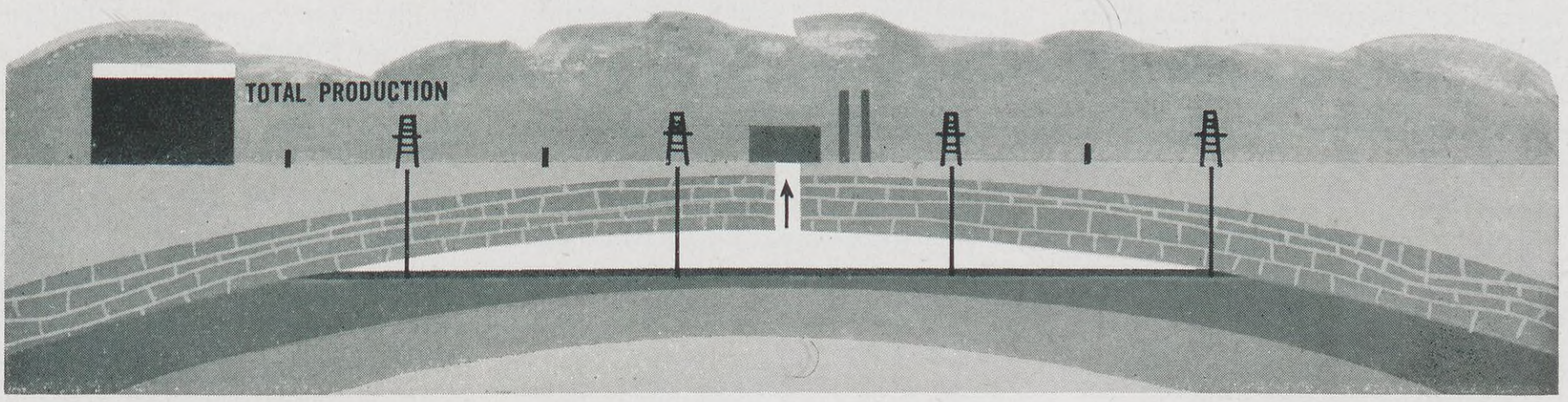
Improved Recovery Through Conservation Practices



Spacing of wells and production of oil and gas are determined by engineering analyses to obtain maximum production without waste through conservation laws. The field shown above is in its initial stages of production.



After field limits are determined and reservoir characteristics are known, it often becomes desirable to operate the field as a unit. Unitization, which requires cooperation between owners and lease holders, is voluntary in some states and compulsory in others. Where suitable, either gas or water, or both (gas illustrated here), is put back into the reservoir of a unitized field to maintain pressure. This prevents irregular gas and water advancement and makes possible maximum recovery.



In a field where reservoir pressure is maintained through conservation practices, total production is normally far greater than it would have been if ordinary production methods had been used.
After the oil is depleted, the gas cap can be produced.

In his acceptance speech following his inauguration as mayor of Allen Park, Mich., C. L. Lichtenberg, Industrial Products Representative in the Detroit Marketing Division, discusses some of his plans for the city.

The Salesman is a Mayor

A Michigan man sees his civic duties as a "privilege"

THE mayor of Allen Park, Mich., rapped his gavel and called the Common Council to order. For several hours they discussed taxes, education, traffic, utilities and other problems important to the 37,000 residents of the city. When the meeting adjourned, Mayor C. L. (Dutch) Lichtenberg hurried home. Tomorrow was to be a busy day. As the Industrial Products Representative of Shell's Detroit Division's Dearborn District, he had several important sales calls to make.

Lichtenberg's service as a civic leader as well as a Shell salesman is an established way-of-life for him. He has been interested in Allen Park municipal affairs since 1938, when he moved there five years after joining Shell at Detroit. During the 1930's, Allen Park, then a village, had become beset with heavy depression debts, and Lichtenberg decided to try to do something about it.

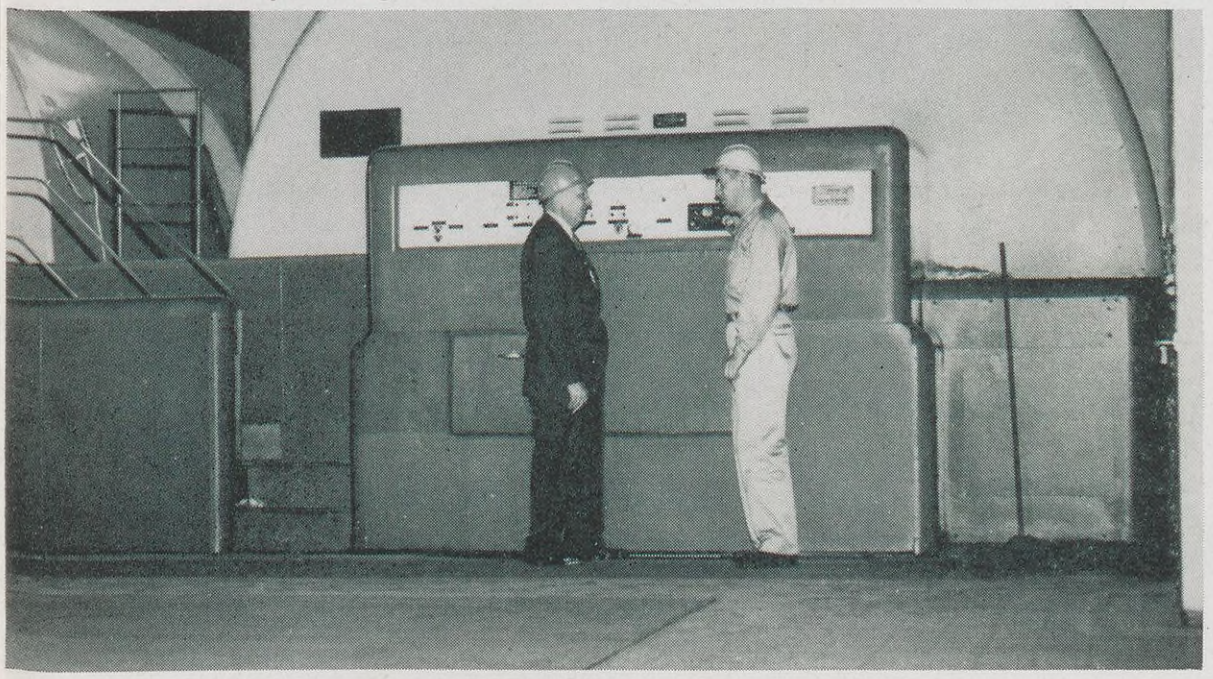
After three years of attending civic meetings, he made his first bid for election in 1941 and, upon being elected to the Village Council, got a chance to put his ideas into action.

When he was recently elected mayor — polling 50 per cent of the vote against two other candidates — he brought with him 16 years of elected service on the Council, including four terms as President of the Council. During that time he was active in a program of refunding the city's debt and helped save the community $150,000 in interest on the principal sum.

"Finances are an important part of any local government," Lichtenberg says. "But they are just part of the over-all planning function. Running a city, particularly one that is rapidly growing, calls for a great deal of

Right hand raised, Lichtenberg is sworn into office by Federal District Judge T. P. Thornton, at left, in the presence of members of Allen Park's Common Council. Lichtenberg served on the Council for 16 years prior to his election as mayor last April. Allen Park has a population of 37,000.

On the job, Lichtenberg suggests the use of a Shell lubricant for a new Detroit Edison Company turbine installation to Edison Engineer Robert Kunkle, right. Lichtenberg, who attended Wayne State University, joined Shell 26 years ago at Detroit. He was transferred to Dearborn in 1943.



planning. There is no such thing as the status quo, we must constantly prepare for the future."

Since he was elected to his first office, Lichtenberg has been doing just that. When the downtown area of Allen Park was in the throes of a building spurt, he advocated the purchase of an expensive tract of land in the commercial area for a municipal parking lot. "Although it seemed to be an exorbitant expenditure at the time, present traffic conditions easily justify it," he said.

He has also been active in obtaining additional facilities for the youth of Allen Park. "If our city is to grow to maturity, we must provide recreational and educational opportunities for our kids. Saving money in these areas is a false economy. We'd probably have to spend it on additional juvenile courts." Backing up these sentiments, Lichtenberg was instrumental in formulating plans for building the new Allen Park Public Library and the Youth Center Building.

But it was in a year of defeat—1957, when he lost his initial mayoralty election—that he also won what he considers his greatest victory: The Village of Allen Park became the City of Allen Park. He had worked toward this incorporation since he held his first office.

"As a city, we have greater independence and legislative powers," Lichtenberg said. "When we were a village, we were dependent upon others to make all but the most minor laws. Now, we're on our own and we're thriving." Financially, the city now also receives a refund on sales and highway taxes, the mayor pointed out.

In 1961, when his two-year term in office is up, Lichtenberg should have accomplished all of his platform planks. "Our problems are basically the same as any small city that is part of a large metropolitan area. As a Detroit suburb, we share in its ups and downs, but at the same time we try to keep a certain independence—a municipal identity," he said. Lichtenberg's major goals are: sufficient water supply, drainage and sewage. Planning and financing these facilities take most of his political efforts and time nowadays.

Lichtenberg's wife, Hazel – also a native Detroiter, to whom he has been married 25 years—has no quarrel with the amount of time her husband spends on civic work. In fact, she helps him all she can. Active in the People's Community Hospital Authority and the Educational Progress Committee, she discusses civic problems with her husband. "After all, it's our town," Mrs. Lichtenberg said. "Why shouldn't we be interested?"

Their enthusiasm for civic work is shared by many Shell families throughout the country. Employees hold offices that range from mayor to council members to PTA positions. Others serve their communities through the Boy Scouts, Red Cross and other organizations. They believe as Mayor Lichtenberg does that: "Working for my hometown isn't a hobby, it's a privilege" ●

RETIREMENTS

W. B. ANDREWS
Tulsa Area
Crude Oil

J. C. BLUNDELL
New York Division
Sales

F. K. BREVET
Honolulu Division
Sales

EULAH F. BROWN
Tulsa Area
Crude Oil

S. BRUCE
Norco Refinery
Engineering Field

MARY G. BRYAN
Tulsa Area
Treasury

F. M. CARROLL
Tulsa Area
Production

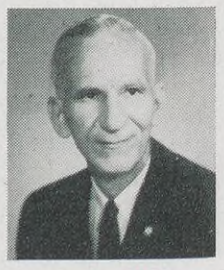
J. R. CHAMBERLAIN
Martinez Refinery
Engineering Field

E. H. DISHMAN
Tulsa Area
Production

M. D. DUNLOP
Tulsa Area
Legal

FRANCES E. EDMISTON
Tulsa Area
Treasury

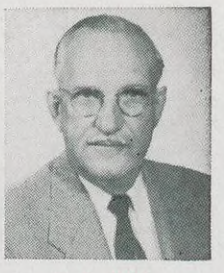
H. C. EELLS
Tulsa Area
Pers. & Ind. Rel.



L. D. FOX
Tulsa Area
Treasury

D. H. GALLUP
Minneapolis Division
Operations

N. GROVES
Wood River Refinery
Engineering Field



G. C. HILL
Martinez Refinery
Cracking

H. H. HONEA
Midland Area
Production

P. H. HOWARD
Tulsa Area
Legal

BESSE L. JOHNSON
Tulsa Area
Treasury

M. KELLY
Detroit Division
Operations

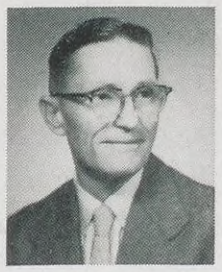
J. B. LEISER
Tulsa Area
Exploration

S. S. LORENZ
Shell Pipe Line Corp.
Mid-Continent Division

R. T. LUDEWICK
Tulsa Area
Transport

W. A. MacDOUGALL
Shell Chemical Corp.
Shell Point Plant

R. V. MAHAFFEY
Pacific Coast Area
Production

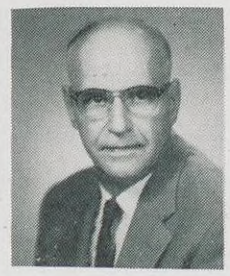


H. J. MARKLEY
Tulsa Area
Transport

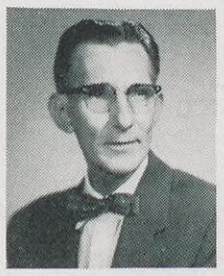
EVA R. McCORMICK
Tulsa Area
Treasury

R. R. MOORE
Wood River Refinery
Engineering Field

O. O. MORGAN
Shell Pipe Line Corp.
West Texas Division



J. S. POPE
Tulsa Area
Transport



W. H. REYNOLDS
Tulsa Area
Exploration

L. RICHARD
Houston Refinery
Engineering Field

F. N. ROBINSON
Tulsa Area
Legal

W. S. SANDERS
Shell Pipe Line Corp.
West Texas Division

RANETTA B. SILER
Tulsa Area
Land

E. G. STAFFORD
Shell Pipe Line Corp.
West Texas Division

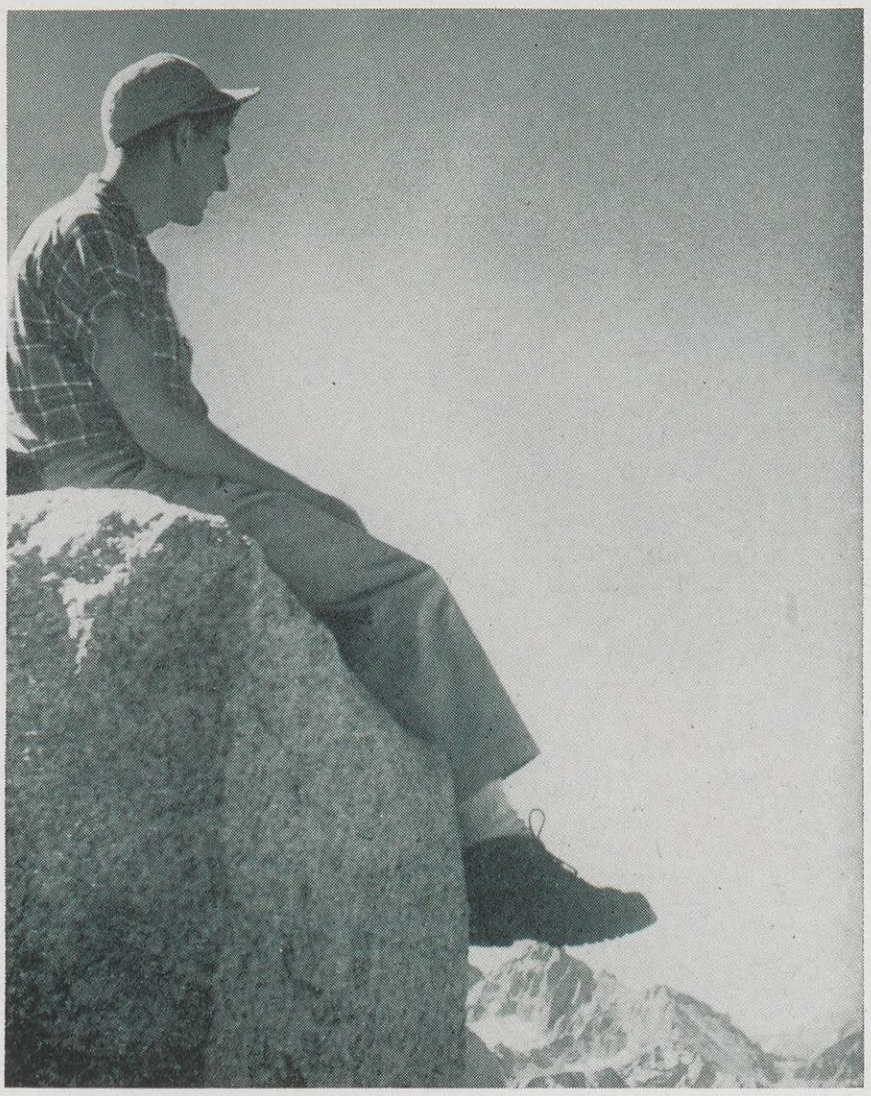
C. R. STANLEY
Tulsa Area
Treasury

P. B. THORNBERRY
Martinez Refinery
Compounding

DORTHIA P. TOBLER
Tulsa Area
Treasury

J. R. VENABLE
Wood River Refinery
Engineering Field

SHELL Coast to Coast



HIGH HOBBY

Perched atop 13,000-foot Mt. Gould, Technical Assistant A. F. Dageforde of Shell Chemical's Torrance Plant rests and surveys California's Sierra Nevada mountains. Dageforde has climbed 41 peaks in these mountains—all higher than 5,000 feet. The climb that he considers his greatest accomplishment was the moonlight scaling of Mt. Whitney, which is the highest peak in California—14,495 feet.

INTERNATIONAL CHAMP

Accountant J. E. Heinricher of the Seattle Marketing Division shot a low net of 70 to win the O. B. Roger Trophy (presented by the former Vice President and Treasurer of Shell Oil Company of Canada, Limited) in the Sea-Van Golf Tournament—the only sports competition between Shell Oil Company and its northern neighbor. The tournament, played in Birch Bay, Wash., pitted golfers from the Seattle Division, Anacortes Refinery and Shell of Canada's Western Division and Shellburn Refinery.

DIAMOND HONOR

Gauger R. A. Whipkey of Shell Pipe Line Corporation has no trouble remembering the name of the baseball field in Glendive, Mont. It's named in his honor. Whipkey, who manages the State Champion Glendive All-Stars (a Babe Ruth team), was largely responsible for organizing a Babe Ruth League for 150 young teenagers. The field seats 900 people and is used by six Babe Ruth teams and 12 Little League teams.

SHELL Coast to Coast

continued

FAST AVOCATION

WHEN W. B. Van Allen wants to relax, he goes for a Sunday drive with his wife, Judy, and their two children. When he goes to work, he drives a tank truck as a Driver-Salesman in the Chicago Marketing Division. And for a hobby he drives, of course. In fact, he is one of the outstanding stock car racers in the Midwest.

Last season Van Allen was named the track champion of Raceway Park near Chicago, having accumulated more points with 12 wins than over 300 other competitors. He also won the track title in 1951.

Van Allen entered his first race in 1948 with his own car, since "stock cars" are visually the same as passenger cars, except for added safety features. (The races are run on a flat oval and are scored on speed. Points are awarded based on the length of the race and finishing position.) As stock car racing became increasingly popular, Van Allen began entering more and more races.

In 1951 he graduated into big time racing by winning the Raceway Park Memorial Day 100-lap feature and the "300-Lap Classic." He repeated his 300-lap win in 1957—the first contestant to do so in the track's history.

Above, left, Van Allen, his face covered with dust, holds the winner's flag after a victory. At right, he poses with his greatest fan, his wife, Judy, who has never missed a race in which he was entered ●

FLAGGING INTEREST

When the elite of the power boat racing world flash by the starting barge on the three-mile Lake Washington, Wash., Gold Cup course, their eyes are on Laboratory Assistant E. A. Banner of the Seattle Marketing Division. The flagman for this boating "world series" is selected for his knowledge of the sport. He must identify boats in a 150-mile-per-hour spray and inform drivers of their position and course condition. At right, Banner holds a white flag showing one minute to start. In the inset, he "tells" a driver that the course is clear by waving a green flag.

CLASSES IN CULTURE

Lillian Lau, the wife of Chemist S. C. Lau of the Modesto Agricultural Laboratory, is a woman of many interests. Besides running a household for her husband and their two daughters, she is presently studying for a Ph.D. degree. Recently, she was requested by the American Association of University Women to teach a class in Chinese culture and cookery at Modesto Junior College. At left, Mrs. Lau shows some of her students how to set a table for a Chinese meal at her home. The table is an heirloom and is made of teak inlaid with mother-of-pearl.

MODEL SONS

Two sons of Shell employees recently won acclaim for their prowess in building and flying model airplanes. J. C. "Butch" Bowman, 14, son of C. B. Bowman of Shell Chemical's Norco Plant, set two world speed records at the National Model Airplane Championships in California. Above, he is shown receiving awards from Jill Jackson on her New Orleans TV program after a local contest. John White, 15, at left, son of Mrs. Jean White of the Atlanta Division, entered his first flying contest one year ago and has already won the trophies shown. He is holding one of the model planes he designed.

Service BIRTHDAYS

Forty Years

J. C. LIGHT
Martinez Refinery
Compounding

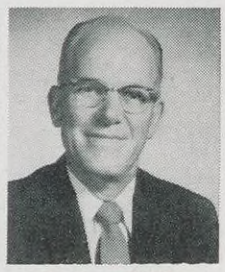
J. F. LORIO
Norco Refinery
Engineering Field

M. J. LORIO
Norco Refinery
Engineering Field

U. SOUTHARD
Wood River Refinery
Engineering Field

Thirty-Five Years

W. H. BAILEY
Wood River Refinery
Lubricating Oils



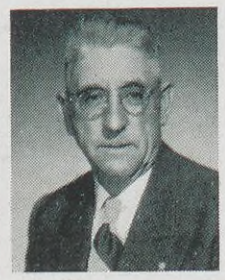
R. T. BROWN
Wood River Refinery
Pers. & Ind. Rel.

D. H. FILBERT
Denver Area
Treasury

M. T. REINES
Sacramento Division
Treasury

H. W. SHEPPARD
Wood River Refinery
Catalytic Cracking

G. A. SMITH
Indianapolis Division
Treasury



W. I. SMOTEL
Pacific Coast Area
Production

MABEL J. STROMGREN
Pacific Coast Area
Administration

E. J. WOLLARD
Houston Refinery
Engineering Field

Thirty Years

T. L. ALLISON
Midland Area
Gas

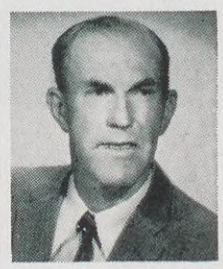
J. H. ASH
Shell Pipe Line Corp.
Four Corners Division

W. L. BALL
Atlanta Division
Sales

B. J. BRUSIEE
Detroit Division
Operations

H. R. BUTLER
Albany Division
Sales

WINNIFRED CALDER
Seattle Division
Treasury



F. EATON
Pacific Coast Area
Production

R. J. ENGLADE
Norco Refinery
Engineering Field

J. J. FOGED
Martinez Refinery
Lubricating Oils

M. J. GILLIGAN
Boston Division
Operations

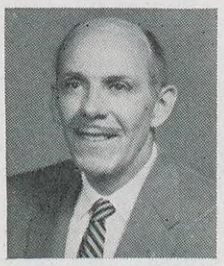
J. GOODART
Pacific Coast Area
Transport

H. W. HANCOCK, JR.
Baltimore Division
Operations

J. J. HAVENS
Midland Area
Production

J. T. HAWKINS
Wood River Refinery
Distilling

Thirty Years continued

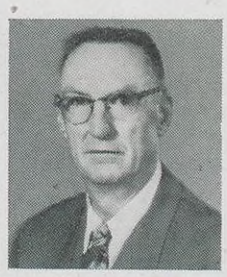


R. E. KINCAID
Cleveland Division
Operations

W. C. KIRK
Wood River Refinery
Lubricating Oils

M. L. LAMBERT
Wood River Refinery
Engineering Field

B. B. MacLEOD
Boston Division
Operations

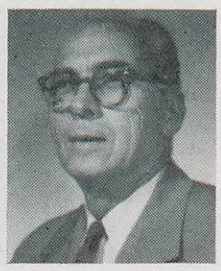


M. S. MAGEE
Wood River Refinery
Light Oil Treating

M. MARCUS
Head Office
Marketing

G. F. MARSH
Atlanta Division
Sales

J. O. MATHEWS
Los Angeles Division
Treasury



J. W. MATTHEWS
Houston Refinery
Catalytic Cracking

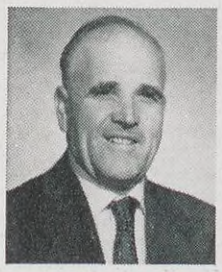
H. McCURDY
Baltimore Division
Marketing Service

W. O. MILLER
Houston Refinery
Dispatching

R. C. MOBLEY
Shell Chemical Corp.
Torrance Plant

A. J. O'KEEFE
New York Division
Operations

L. P. RIPPIN
Sacramento Division
Operations

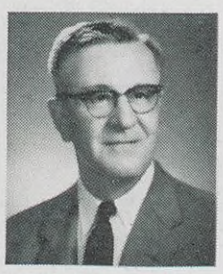


S. F. SARDO
Martinez Refinery
Engineering Field

J. C. SKAINS
New Orleans Area
Land

W. W. STRANE
Seattle Division
Treasury

H. E. SULLIVAN
Boston Division
Operations

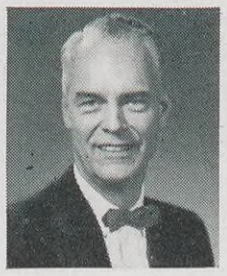


J. VAN HOOK
New York Division
Operations

B. VICKNAIR
Norco Refinery
Engineering Field

Twenty-Five Years

F. A. ADKINS
Baltimore Division
Sales



R. C. ARCHIBALD
Shell Development Co.
Emeryville

D. L. BARFOOT
Houston Refinery
Engineering Field

E. A. BECKETT
Pacific Coast Area
Gas

G. J. BREAUX
New Orleans Area
Production

J. S. BRIEN
Wood River Refinery
Pers. & Ind. Rel.

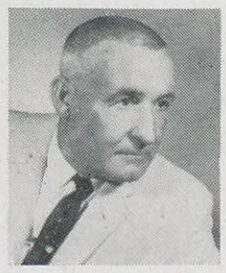
L. C. CALDERA
Shell Chemical Corp.
Shell Point Plant

L. W. H. CHOCK
Honolulu Division
Operations

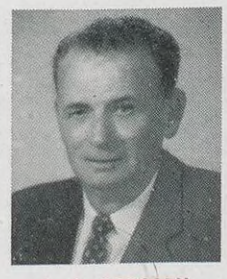
N. V. DuCHESNE
San Francisco Office
Financial

H. J. K. FICHTER
Shell Development Co.
Houston

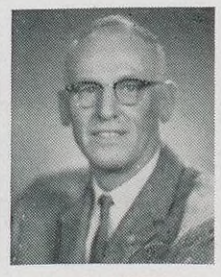
H. J. FIVASH
Martinez Refinery
Cracking



P. E. GREENE
Wood River Refinery
Engineering Field



A. A. GREGORY
St. Louis Division
Operations



V. C. GUPTILL
Boston Division
Operations

J. L. HARRIS
Wood River Refinery
Engineering Field

P. S. HELM
Wood River Refinery
Gas

E. R. HEYMAN
St. Louis Division
Operations

J. M. HOLDER
Shell Pipe Line Corp.
Mid-Continent Division

H. J. HOLIHAN
Boston Division
Operations

M. J. HUMECKY
Pacific Coast Area
Production

E. M. KAMEDA
Honolulu Division
Operations

R. M. LAMPE
New York Division
Sales

A. D. LATHAM
Shell Chemical Corp.
Shell Point Plant

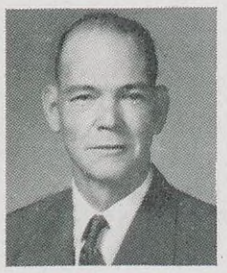
Twenty-five Years continued

J. A. LAYTON
St. Louis Division
Operations

L. L. LISMAN
Pacific Coast Area
Production

G. E. MALLORY
Wood River Refinery
Refinery Laboratory

W. L. MITCHAEL
Pipe Line Dept.
Long Beach, Calif.



J. W. MOORE
Pacific Coast Area
Production

N. POTHIER
New Orleans Area
Production

J. E. REED
Shell Development Co.
Houston

J. F. RICHARDSON
Houston Area
Production

W. F. ROCKHOLT
Pacific Coast Area
Production

S. H. ROCKWOOD
Midland Area
Production

W. K. SCUDDAY
Shell Pipe Line Corp.
West Texas Division

L. SILVERSTEIN
St. Louis Division
Marketing Service

G. E. SONGY
Norco Refinery
Catalytic Cracking

T. M. STODDARD
Pacific Coast Area
Production

A. TREFZ
St. Louis Division
Operations

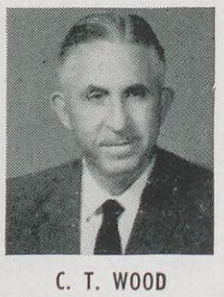
W. E. WADSWORTH
Shell Pipe Line Corp.
West Texas Division

J. D. WALKER
Norco Refinery
Pers. & Ind. Rel.

J. K. WHITTLESEY
San Francisco Division
Sales

E. S. WIEBALK
San Francisco Division
Sales

H. R. WITTE
Denver Area
Treasury



C. T. WOOD
Pacific Coast Area
Production

Tribute to a Pioneer

Admiring the van der Linden memorial are members of the Pacific Coast E&P Area—l. to r., Production Manager O. L. Odale, W. F. Bates, on special assignment, and General Production Supt. F. R. Schmieder.

A PLAQUE honoring a Shell petroleum pioneer, the late Ben H. van der Linden, was dedicated recently at Ventura, Calif.

The Petroleum Production Pioneers, Inc., chose Mr. van der Linden because of his role in the discovery of the Ventura Avenue Field, one of California's most prolific oil fields.

Mr. van der Linden, a native of the Netherlands, had convinced Shell to lease the potential oil lands of Ventura in 1916. However, about five years and $2½ million later, Shell was ready to write off Ventura Avenue as a poor investment. But Mr. van der Linden's determination won out and Shell brought in the field in March of 1922.

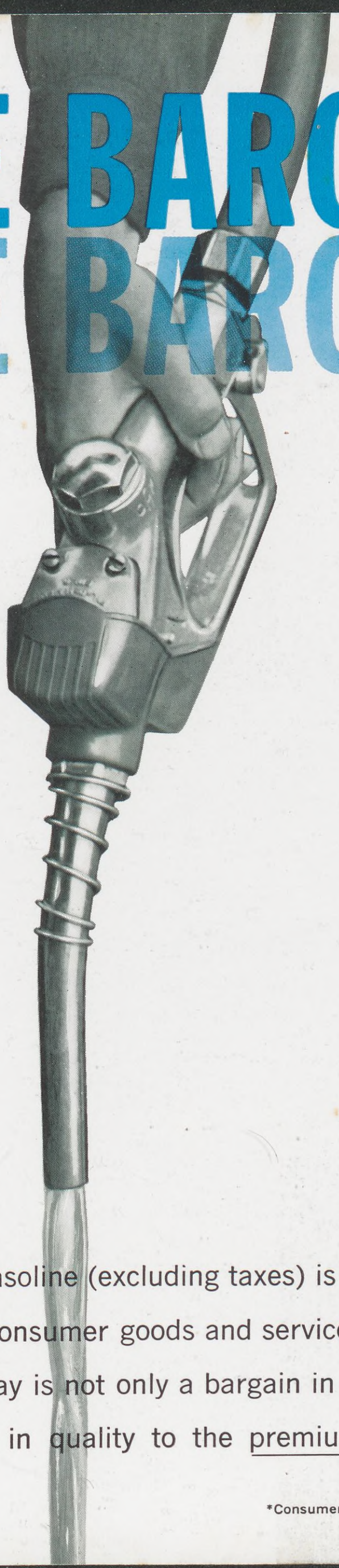
In 1929, Mr. van der Linden became the world-wide head of production activities for the Royal Dutch/Shell Group. He retired in 1940 and came to the United States to live. He died October 5, 1958, while on a trip to the Netherlands.

The plaque honoring Mr. van der Linden reads: "In memory of B. H. van der Linden, 1880-1958. The continuing growth and prosperity of San Buenaventura is in large measure due to the daring and genius of the petroleum pioneers who so successfully explored and developed the Ventura Avenue oil field. Foremost among these pioneers is B. H. van der Linden of Shell Oil Company who, despite discouraging failures and frustrating circumstances, steadfastly believed in the vast oil potential of this area. That his faith was borne out is testified to by the more than 600,000,000 barrels of oil that to date have been produced from Ventura Avenue—for many years California's most prolific oil field. It is in tribute to this man—who also developed the industry's first petroleum engineering department and later directed Shell's world-wide production operations — that this memorial has been erected" ●

matters of fact

DOUBLE BARGAIN

DOUBLE BARGAIN



The average retail price of regular gasoline (excluding taxes) is the same as in 1953, while the average retail price for all consumer goods and services has jumped almost nine per cent*. Regular gasoline today is not only a bargain in price, but also a bargain in quality – for it is identical in quality to the premium gasoline of 1953.

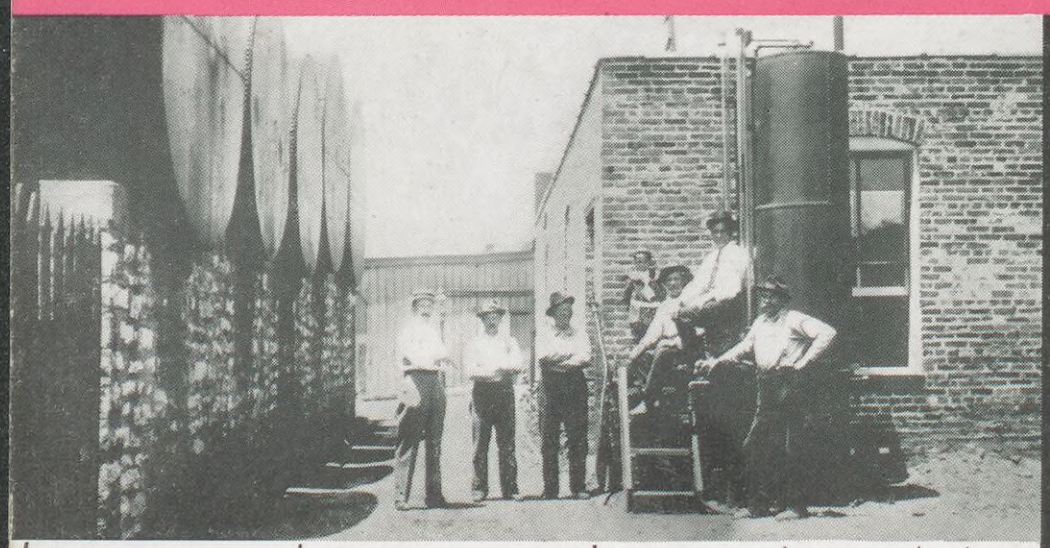
*Consumer Price Index, Bureau of Labor Statistics

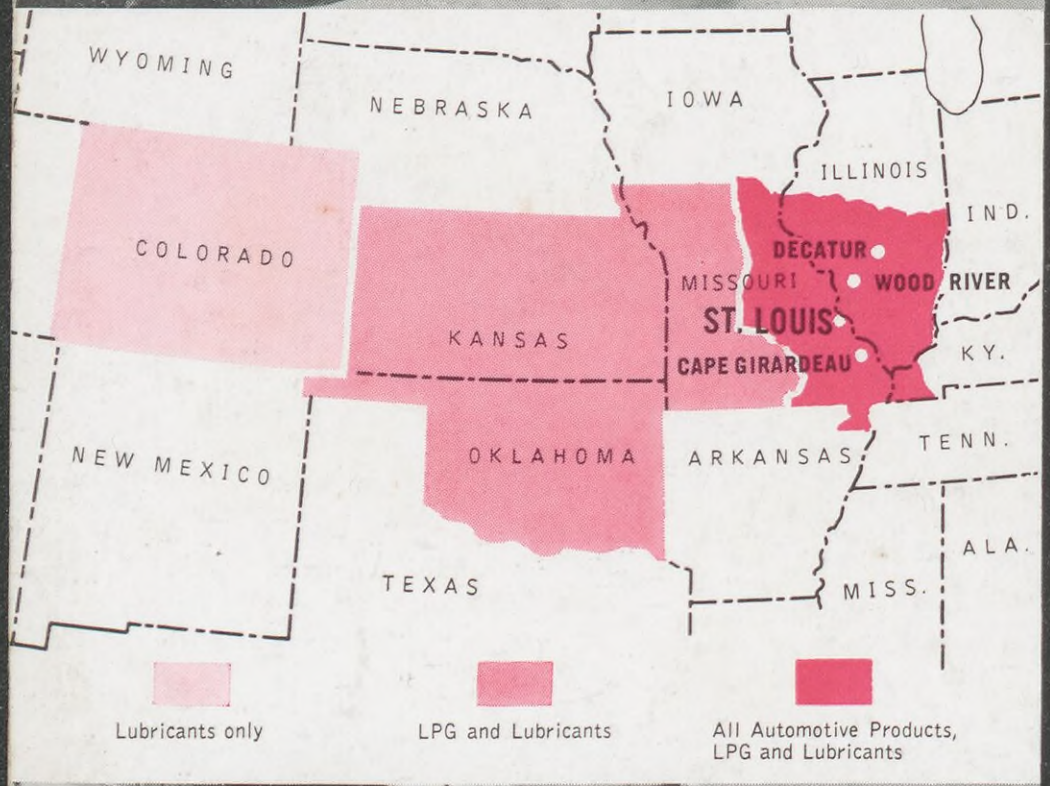
SHELL OIL COMPANY
50 West 50th Street
NEW YORK 20, N. Y.
RETURN POSTAGE GUARANTEED

J. B. Bradshaw
1023 Eddystone Dr.
Houston 24, Texas

SPL

LANDMARKS OF PROGRESS





The St. Louis Marketing Division

IN 1905 the Automobile Gasoline Company opened the country's first "drive-in" gasoline station in midtown St. Louis, shown in the upper left picture. In 1929, four years after Shell opened the St. Louis Marketing Division as part of its move into Midwest marketing activities, Shell purchased that company including the site of its historic station.

Today, symbolic of the progress of oil marketing in the St. Louis area, is the modern, glass and brick Shell Building (bottom left) that houses the St. Louis Division office. Located in suburban Clayton, the Division directs the operation of four Marketing Districts—Cape Girardeau and St. Louis in Missouri and Decatur and Wood River in Illinois.

These Districts supply the full line of automotive products directly or through jobbers to more than 1,100 Shell service stations in Missouri, Illinois, and the southwest corner of Kentucky.

In Western Missouri, Oklahoma, Kansas and Colorado, the Company is not in a position to market gasoline at competitive costs. However, the St. Louis Division supplies Shell jobbers in Oklahoma and Kansas with LPG (liquefied petroleum gas) and lubricants. Lubricants only are distributed in Colorado.

The Division employs 319 men and women—141 at the Division office and 178 at District offices and plants.