



SEVENTY⁷⁶
SIX

Union Oil Company of California

September 1961



A SIGN OF THE TIMES

A certain sign that meets the eye on one of the Federal Highway projects in Los Angeles County says: STATE FUNDS EXPENDED ON THIS PROJECT—9%; FEDERAL FUNDS—91%.

At first flying glance, that looks like a pretty cozy deal. Unless you stop to ask yourself a couple of questions:

First question: Who pays the state's 9%?

The answer: You do and I do—out of that 6 cents per gallon we pay on every purchase of gasoline.

Second question: Who supplies the Federal Funds of 91% on this California highway?

The answer: You do and I do—out of that additional 4 cents per gallon we pay on every purchase of gasoline. And a mighty big portion of the four cents goes elsewhere, or stays in Washington to meet the "overhead."

What the sign should say is: DURING THE FISCAL YEAR OF 1958-59, CALIFORNIANS PAID TO THE FEDERAL GOVERNMENT IN MOTOR-VEHICLE TAXES AND AUTOMOTIVE EXCISE TAXES A TOTAL of \$367.9 MILLION. DURING THE SAME YEAR, CALIFORNIA RECEIVED FROM THE FEDERAL GOVERNMENT \$196 MILLION FOR HIGHWAYS. Quite a difference!

*Tax data from
Public Affairs Forum
Published by M & M Association*

SEVENTY ⁷⁶ SIX

Union Oil Company of California

Volume 5, Number 7

September, 1961

THE COVER: In Puget Sound, 76 miles from Seattle, is a paradise for sportsmen, vacationers and retirees. The islands are called the San Juans. If our color photo isn't convincing, try the photos and text beginning on Page 8, Islands with Everything.

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76

is a Union Oil Company of California trademark. It also symbolizes the American freedoms won in 1776, which made possible this nation's industrial development and abundance. Our SEVENTY-SIX magazine, published monthly, mirrors industrial freedom through the thoughts, skills, accomplishments and appreciations of Union Oil people. We invite readers to participate with us in an exchange of ideas and information. Address correspondence to The Editor, SEVENTY-SIX, Union Oil Center, Los Angeles 17, California.

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Letters:

Union Oil Company of California
425 First Street
San Francisco, California

Gentlemen:

I represent the Minneapolis Brewing Company in the western states and have purchased gas and service from your stations from the North Dakota line to Seattle and up and down our western states.

The great majority are well run stations with very good service. However, today I really had my eyes opened in West Yellowstone. Not a large station or the most modern, in fact I would guess it is quite old, but in all my travels I have never seen one quite so neat or clean as Ernest Wilson's. (Whose delivery slip I enclose). Rest-room facilities behind some well-kept cabins had floors that appeared to be freshly waxed, and the washbowls sparkled.

Through an error, which was as much my fault as the young fellow's who waited on me, two quarts of oil was added instead of one. This overfilled my new Olds considerably. The lady in charge insisted that the crankcase be drained and filled with just the four quarts required. Then she would only let me pay for one quart, insisting it was their mistake.

Believe me, this lady and her crew, or whoever is responsible for this station of yours, deserves a Gold Star!

Yours sincerely,

(Signed) R. U. Herzog
Snohomish, Washington

Mr. H. S. Temple
Asst. Credit Manager
Union Oil Company of Calif.
Los Angeles, California

Dear Mr. Temple:

We have just returned from a trip back through the middle west, and I want to say thanks to you for really making our trip a pleasure.

After taking this trip for years, this is the first time that we have returned with nothing but praise for the condition of service station restrooms.

You may have forgotten that, in a meeting we attended together, I was expressing myself loudly, damning the attendants and officials of a certain company for allowing their restrooms to be in such poor condition and how this actually took the pleasure out of traveling. While I was expounding, you asked for my home address and we later received Union Oil Company credit cards.

We used our Union cards on this trip, and we have nothing but praise for Union, Gulf and Conoco. We did not find a single station to complain about. I think this is an outstanding record and just wanted you to know that in helping your company to make more sales you also personally did me a big favor by making our trip so much more enjoyable.

Yours truly,

(Signed) Robert L. Reed
Santa Ana, California

Pipeline Dispatcher

*or how to move 100,000,000
barrels of oil sitting down*

Walk into the Pipeline Department's new dispatching office at Union Oil Center any hour of the day and you're apt to be ignored totally by two of its occupants — the dispatchers. Walk in weekends, holidays or at night and the cold-shoulder treatment is reduced to one.

It isn't that pipeline dispatchers are an unfriendly breed of men. Rather, they have 260,000 barrels of oil to deliver in the next 24 hours, or nearly 100 million barrels during the next year. And there's not a pump or a pipeline or a valve in sight to help them. They've got to do it all by telephone — sitting down!

One of the two dispatchers on duty as you walk in today is Calvin D. Newton. He's talking to Clarence F. Thomas, the engineer at Santa Margarita Pump Station near Paso Robles. Pick up that extra telephone receiver behind Cal and listen in to the conversation. We'll help out with a word or two (in parenthesis) if the dialogue becomes too abbreviated.

Margarita: — "Margarita!"

Dispatcher: — "I've a written order for you, Clarence."

Margarita: — "Okay, I've got a blank (order blank)."

Dispatcher: — "When notified by dispatcher, start checking gravities on Cuesta No. 2 line. When gas oil arrives by gravity test, receive the

Cuesta No. 2 line into 404 (tank number) and close (valve) into 410 (tank number). H. T. C. (initials of Harvey T. Colby, chief dispatcher). Please repeat."

Margarita: — (Repeats foregoing order verbatim.)

Dispatcher: — "Okay at 11:40 a. m. C. D. N. (initials of Cal D. Newton, the dispatcher)."

Margarita: — "C. F. T." (initials of Clarence Thomas, pumper at Santa Margarita). "Say, Cal, when do you expect the gas oil to arrive?"

Dispatcher: — Avila will shut down on the Orcutt (crude) at 5 p.m. Switch at Bassi (a pipeline tie-in between San Luis Obispo and Avila) about 5:30 p. m., then will start Santa Maria Refinery (gas oil delivery). So let's say about 10:30 or 11 p. m., Clarence."

Margarita: — "Okay, Cal, I'll tell Ollie when he comes on. We'll get a better time later."

Well, if you got the gist of that conversation, don't imagine that's all there is to pipeline dispatching. These men, who rely heavily on the *gift of gab* and use an abbreviated language of their own, spend hour after hour exchanging orders and reports. But their realm of responsibility and operation extends far beyond office and pump station walls.

A map hanging in front of each day dispatcher — one labeled "Southern Division," the other "Northern Divi-



Key man in the pipeline transportation of petroleum is the dispatcher. He (Cal Newton, at left) calls the signals by telephone for every pipeline move in his division. Typical of the pump station men who carry out his orders is Engineer Clarence Thomas at Santa Margarita.

sion" — offers a much better description of the job. The two maps involve most of the state of California, superimposed with Union Oil's 1,000 miles of main pipelines, 505 miles of gathering lines, and 31 pump stations dotting the entire system. The dispatcher's task is to keep this 1505 miles of line busy constantly. For unlike a railway, where trains can travel at irregular intervals, a pipeline can operate only when full. One shipment of oil pushes another and is followed by a third and a fourth, etc., *ad infinitum*.

Our California refineries, at the discharge ends of these main division pipelines, have enormous appetites for numerous types of crude and semi-refined oil. But to prevent costly storage problems, they're particular about when and in what quantity they receive the shipments. Refineries therefore announce their "operating plans" a month or more in advance.

Oleum Refinery near San Francisco is equipped to refine five types of oil. These are a partly refined *gas oil* and a *pressure distillate* from our coking plant near Santa Maria, *Orcutt crude enriched* with a natural gasoline from our Battles Plant near Santa Maria, *waxy crude* from San Joaquin Valley, and *coker crude* from various fields in the San Joaquin Valley.

Los Angeles Refinery, served by the Southern Division Pipeline, handles a variety of crudes, including Los Angeles Basin, Santa Paula, South Mountain, Four Corners, and supertanker cargoes from Kuwait.

Both the refineries and pipeline forecast their operations with remarkable accuracy. However, conditions can change, and usually do, before the "operating plan" is fulfilled. A big-volume sale, a price war, an unscheduled shutdown — any such unpredictable event may upset the operating plan.

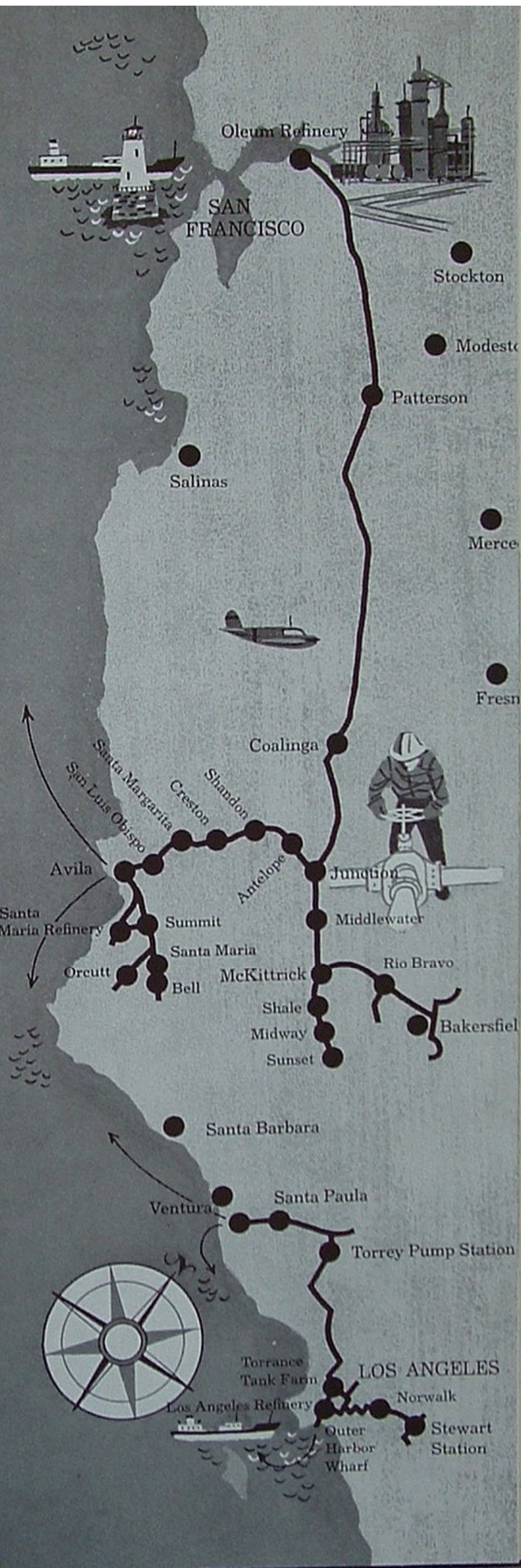
And one of the first persons asked to do something about it is the pipeline dispatcher. Usually, with short notice, he can decrease an oil shipment, increase it, side-track it into pipeline storage, or shut down the artery.

Even on the supply end of the pipeline system, change is inevitable. Oil field production may rise or decline. Or receipts and deliveries for account of purchase, sale or exchange may be cancelled. Any abrupt change affects the "operating plan" and calls for a chain of new orders up and down the line.

Literally the dispatcher keeps the whole pipeline picture at his fingertips. Spread across his desk top is an immense dispatch sheet entitled "Form 45 — Hourly Gauge Report." Propped up in front of him are an "Order Book" record of all orders issued and a "Log Book" listing any cases of trouble. Close at hand is an arsenal of communications equipment: — four dispatch telephone lines — four Company dial lines — two Bell systems, one direct, one switchboard — a teletype to each Pipeline division office and one to Oleum — also a Company-wide

Our two California pipeline divisions traverse most of the state.

Continued



Pipeline Dispatcher—continued

teletype to watch during the wee hours — a Conelrad Monitor — and a mobile radio. The show must go on regardless of power failures, earthquakes or enemy attack.

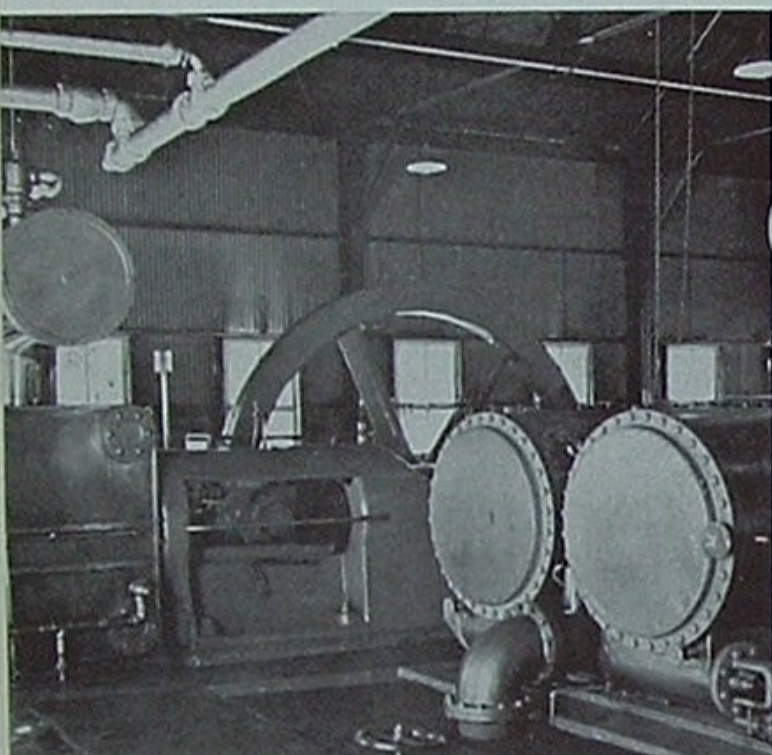
On even hours, pump-station personnel or district gaugers at all Northern Division locations make reports to the dispatcher. The data they recite include tank gauges, pumping rates, pumping pressures, pumping temperatures, and gravity measurements of the moving oil. On odd hours, Southern Division personnel do likewise. Every figure is carefully entered on the Hourly Gauge Report.

Thus at a glance the dispatcher has an intimate view of the entire pipeline system. He knows the length and location of every shipment — where it started, where it's going, when it will arrive. The report of a sudden pres-

sure drop somewhere along the route may enable him to spot a pipeline leak and tell the repair crew where to look for it. He's as sensitive as a wet hen and, if the station engineers don't happen to call him on the dot, he calls them.

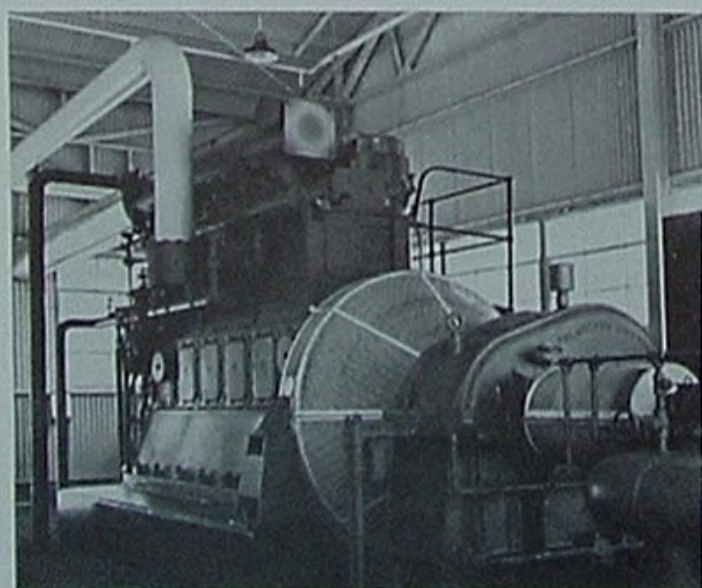
Thirty-one gauge reports every two hours can keep a dispatcher — well, if not on his toes, at least glued to his chair. Nor has the automation of some of our pump stations given him time to cock his feet on the desk.

Nowadays, in addition to pumping more crude than ever before, he has new responsibilities. There are super-tanker cargoes to receive at our Outer Harbor wharf. Santa Maria Refinery has to be kept supplied with coker feed. Export cargoes of oil have to be moved to the dock at Port San Luis Obispo. There is a constant pipeline flow



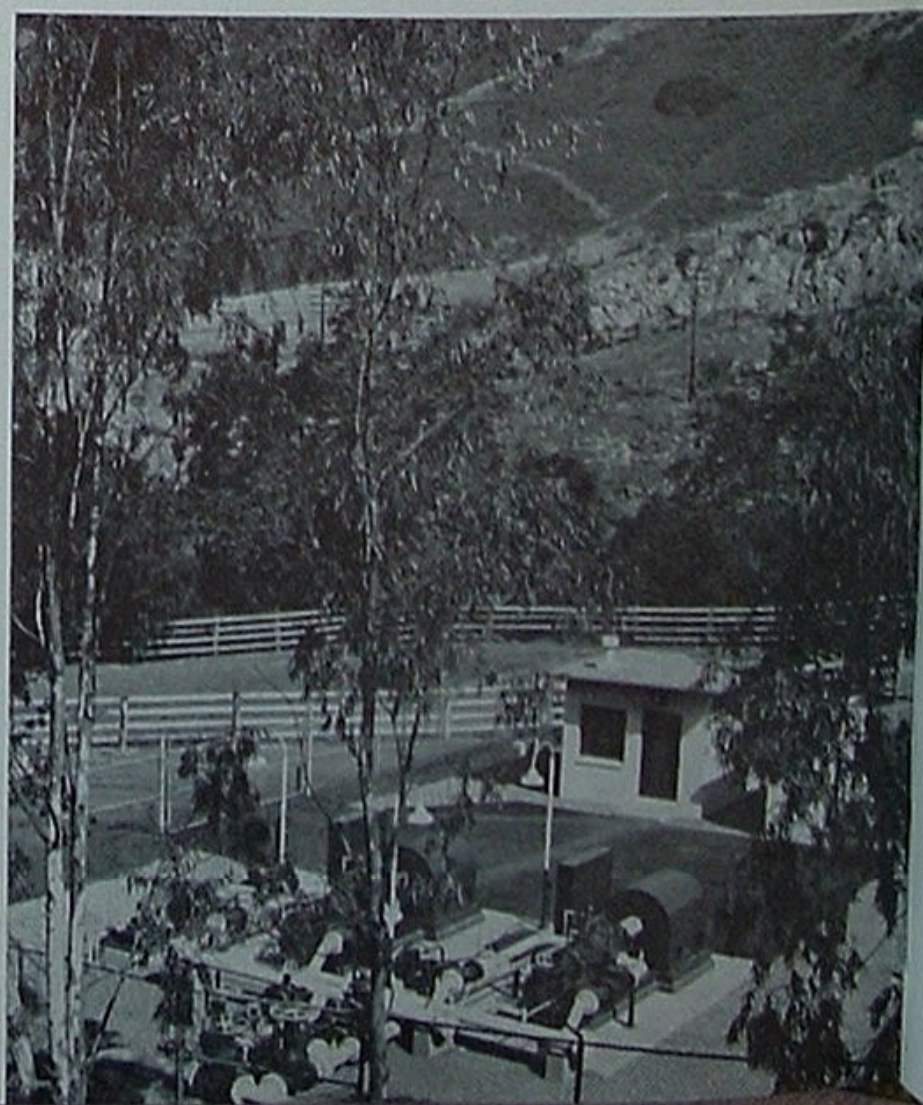
Still in efficient use is this flywheel pump, installed with the line in 1909.

Modern pumping units, however, step in to fill the pressure gap whenever old installations start to falter.



Santa Margarita is a manned pump station where oil is pumped both to and from the coast. The operator reports to Los Angeles every two hours.

Cuesta, an automatic booster station, is checked from Santa Margarita, whose operator relays Cuesta pumping data to dispatcher.



of gasolines and Diesol from our refineries to the transport terminals or to products lines now moving inland as far as Las Vegas and Phoenix. Also our Southern Division Pipeline, while resting, pumps waste water from Stewart Pump Station to Norwalk for disposal. No wonder the dispatcher carries his lunch pail to work and keeps it within easy reach.

Obviously, familiarity with locations, equipment, personnel and operating problems is requisite to a man who has to direct such complicated tasks from behind a desk. For that reason, most of our dispatchers are men who have spent long apprenticeships in pump stations and along the lines. They know nearly every tank by sight as well as number. They're familiar with our newest automatic equipment and with a few remaining "flywheel

pumps" dating back to 1909. They know their fellow workers and their job.

To test their alertness, we caught one of their veteran members, Hollis Meredith, in a rare moment of pause and broached three of the most difficult questions we could think of. Here are his prompt replies:

"It takes 550,000 barrels of oil to fill Union Oil's crude oil pipeline system in California."

"The minimum amount of operating oil held in tankage, for which the Pipeline Department is accountable, amounts to an additional 2,000,000 barrels."

"We move oil by pipeline at a rate of about four miles an hour, or approximately the speed that a man can walk."

Then the phone rang and Meredith turned his back.

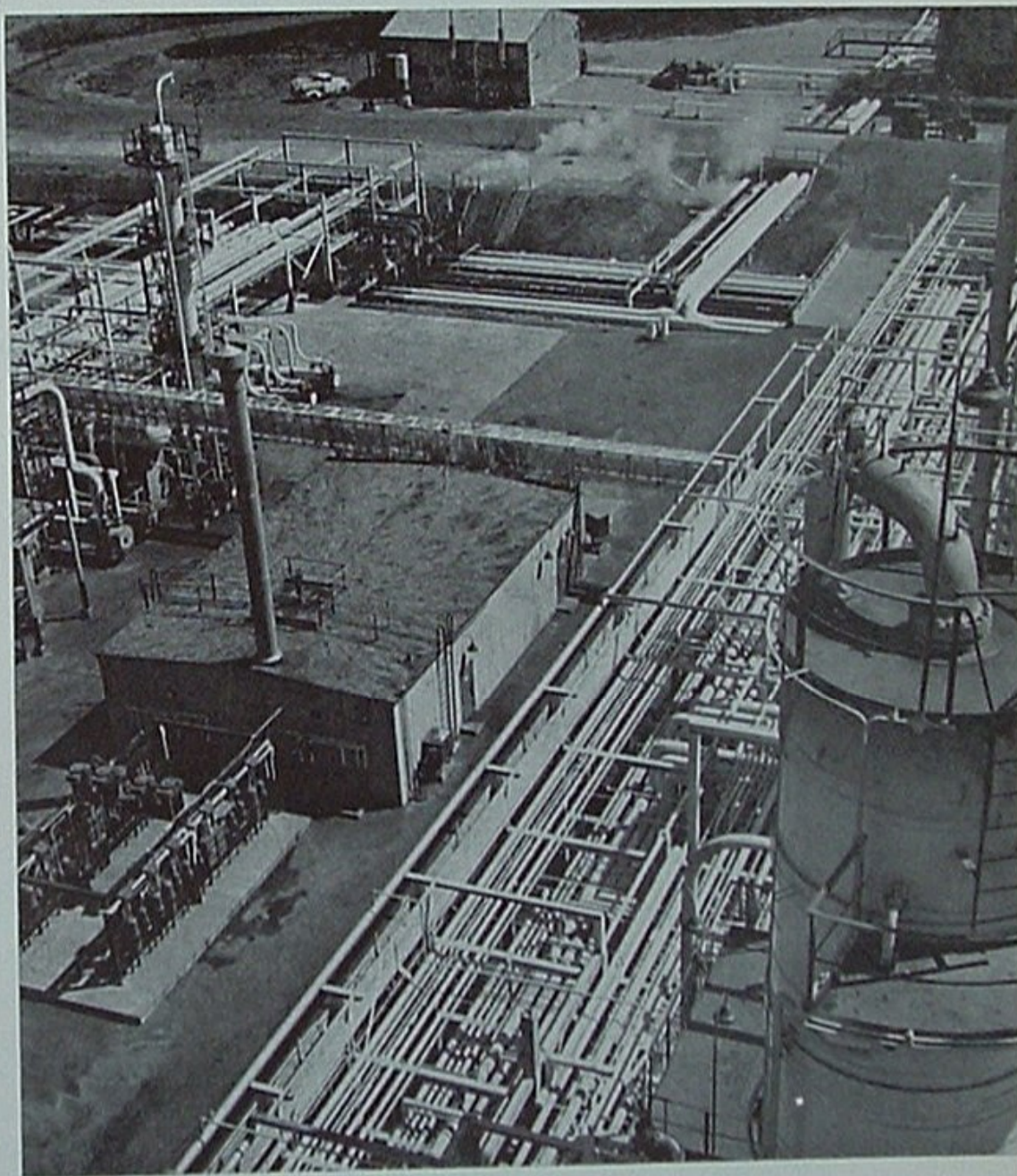
/THE END



Responding to an order from Central Dispatching Office, Herman Abloe starts flow of gas oil at Santa Maria.



Dispatcher Hollis Meredith, one of the men who direct this flow of oil at Union Oil Center, found a moment of pause to answer our questions.



Santa Maria Refinery ships gas oil to Oleum Refinery via pipeline after removing heavy ends through coking. Control room is center.

By Barry Goldwater, U. S. Senator from Arizona
Reprinted through courtesy of Los Angeles Times



inConsistencies



Those eager supporters of federal aid, who applaud each new expansion of federal power, justify their actions on the grounds that the individuals in the various states cannot or will not provide for themselves.

My colleague, Republican Sen. John Williams of Delaware, in a recent and I'm afraid almost unnoticed speech in the Senate, clearly exposed the basic fallacy of the federal aiders' position.

In March, at the urging of the President, we had a bill under consideration to extend and expand unemployment compensation benefits.

Secretary of Labor Goldberg headed the list of administration witnesses who told the Senate the states alone could not support the necessary increases in unemployment compensation. This problem, they said, must be answered by all the people in all states.

In June, these same disciples of federal aid are telling us the individual states cannot meet their responsibilities in regard to public schools. This problem is too large and must be borne by all the people of all the states.

In March, massive unemployment was confined to the industrial states — Pennsylvania, New York, Michigan, etc. — and the bill we passed in March was designed to take funds from states where unemployment was not a problem and deliver them to states where unemployment was a problem. The funds traveling through Washington will shrink by the usual bureaucratic brokerage fee.

Under the terms of this legislation, Pennsylvania re-

ceives \$14.3 million more than it will contribute. New York will collect \$50.1 million more than it contributes. Tennessee will contribute \$7 million more than it receives. Mississippi, Alabama, Arkansas, Oklahoma, Arizona and a host of other states all contribute more than they can possibly receive in benefits.

The big industrial states, under this legislation, are all on the receiving end. But now in June, the situation is suddenly reversed. We are told that Tennessee, Mississippi, Alabama, Florida, Louisiana, Oklahoma, and Arkansas are just too poor to adequately support the school system. So the federal aiders propose that we take from the rich states — Pennsylvania, New York, Michigan, Illinois, etc. — and distribute in the poor states.

All the states that were regarded as rich states and able to contribute to the nation's unemployment problem in March are now poor states unable to underwrite their

of federal aid



own educational systems.

New York, for example, which receives \$50.1 million more than it contributes under the unemployment compensation bill, will contribute \$75 million more than it receives under the aid to education bill.

New Jersey, under the unemployment federal aid, receives \$11.5 million more than it will contribute. Under the aid to education bill, it will contribute \$20 million more than it receives.

Kansas, under the unemployment aid bill, will contribute \$5 million more than it receives. Under the aid to education bill, it will receive \$3 million more than it contributes.

The absurd inconsistency of the federal aiders is clearly revealed. If New York can afford to contribute \$75 million to aid other states in education, certainly it could have paid the \$50 million necessary for unemployment

compensation and been \$25 million ahead. If Maine can give \$2.5 million to solve unemployment problems in other states, it could have paid the \$1.5 million it will receive under federal aid to education and been \$1 million ahead.

Who gains from this shuffle of funds through Washington? The bureaus and bureaucrats who thus become dispensers of bounty. What is lost in addition to the money soaked up by the Washington brokerage fee? Individual freedom. New York, Pennsylvania and Michigan, becoming dependent upon federal handouts, forfeit local control, while Alabama, Mississippi, Tennessee and Florida, being made dependent upon the federal education funds, lose control of their school systems.

Who gains? Those dictatorial planners in the federal establishment whose total ambition is to increase their influence and their control over the lives of Americans.

★ ★ ★

WALTER WINCHELL In New York and Hollywood

Gen. Maxwell Taylor, the military "brains dep't" for the White House, was asked if he regretted returning to the midsummer heat and turmoil of Washington: "A lot of us may be doing things we don't like to do in the next few years."

Such as fighting Reds in Germany and employing them in Hollywood.

Reprinted from *Los Angeles Herald & Express*
/THE END



76

*To get away from it all, try
the San Juans of Puget Sound*

Islands with everything

Our welcome sign is out even to a windjammer at Orcas Island. We suspect the boat has an auxiliary motor just in case the weather gets too good in San Juans.

In Puget Sound — just 76 miles from Seattle, by nice coincidence — is a group of islands known as the San Juans. They are gently sloped, heavily wooded. Several contain spring-fed, fresh-water lakes stocked with bass and trout. Deer abound by the thousands. There are no poisonous reptiles or pesky insects. Beaches studded with semi-precious stones and shells are washed perpetually by turquoise waters of the Sound. Salt-water fishing, swimming, motorboating, sailing and water skiing tempt from all points of the compass.

Moreover, the San Juans are favorably situated. The great Olympic mountain barrier turns moisture-laden winds from the Pacific a few degrees north or south, oftentimes making the islands an oasis of sunshine. Few places in the world come closer to mankind's favorite

image of paradise.

Though mariners have gazed fondly upon these sunny isles since sailing ship days, only now are their pleasure potentialities being developed:

On Orcas Island, one of the largest of the group, a 6,000-acre estate founded by Robert Moran in the early 1900's has been opened for public use. A large portion of the acreage, known as Moran State Park, was donated to the state. The remainder, called Rosario Estate, was purchased by Dick Walker and Gil Geiser for the development of a plush lodge and restaurant; summer homes and a "Boatel;" a swimming pool and golf course; and one of the finest marinas to be found anywhere. The latter of course has petroleum products to match and "76" fuel pumps lining the turquoise boatway.



This is a marina operator's idea of paradise—blue skies, green islands, turquoise seas, and lots of boats—burning petrol!

Who could conceive of heaven without deer—either spelling?

Nearby Blakely Island was chosen for its paradisiacal role in 1954 by a winged gentleman named Floyd O. Johnson. He was looking for an isolated retreat where he and other fliers of our age could "get away from it all" yet find everything.

Today Blakely certainly qualifies. It has "everything" plus a landing strip for airplanes, an excellent harbor for boats, a "Skytel" and restaurant, private homes with driveways to accommodate airplanes, a shopping center, two fresh-water lakes, and, yes, Union Oil Products. Our Washington sales people just wouldn't be denied any location 76 miles from Seattle.

Our distributor at Blakely Marina is Dick Hiss, formerly a mechanical engineer for Hughes Aircraft in Southern California. He took one vacation look at the

Continued



Islands with everything—*continued*

San Juans, later heard that Blakely Harbor was for lease, and immediately told Floyd Johnson, "I'm your man!" The Hiss family have converted nearly all of Johnson's fliers into enthusiastic amphibians.

Next time you're in Seattle or vicinity, visit the San Juans. If your private yacht is still a year or two up the ladder of success, try the ferry ride from Anacortes, Washington, to Rosario. Or live dangerously — hitch a ride over on water skis.

Remember, enroute or after you get to paradise in the San Juans, your Union Oil Gold Card is practically legal tender!

/THE END



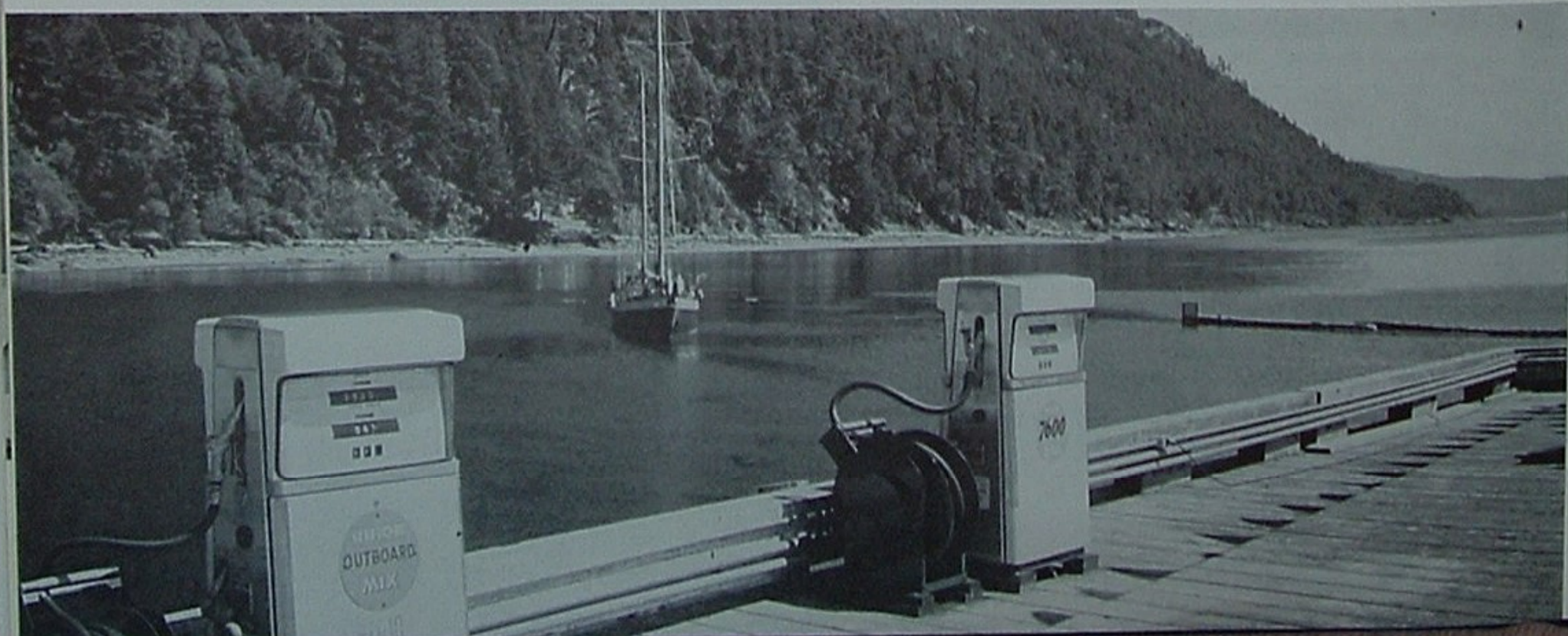
"Strait is the gate and narrow the way" applies to both airfield and marina at Blakely—and quite a few are finding it.

Marina Operator Dick Hiss, right, uses the new "76" Boating Guide to keep his Gold Card guests from straying in San Juans.



At the pearly gates of Rosario, Dick Walker and Gil Geiser stand watch.

Just as we suspected and hoped, that windjammer has furled her sails and is unbattening her fuel bunkers. Man the pumps!





Dealer Joe Kaspar is here!

To clear a service station and motel site 120 feet wide by 600 feet long can be a whale of a job — especially if the site is occupied by an 80-foot-high cliff of quartzite and sandstone.

That's what Joe Kaspar and Virgil Hagins faced two or three years ago when they examined Monument Hill in Rawlins, Wyoming, and decided the mountain was taking up too much room.

Monument Hill, by the way, got its name back in wagon-train days, when California-bound pioneers used to climb to its summit and scratch their "Jedediah Kilroy was here!" in the soft sandstone. Old initials decorate the rocks, along with quite a few new ones.

Back to Kaspar and Hagins, these two enterprising men thought what a shame it was for a mountain to occupy such a nice bend in Highway 30 and right in the middle of town. It would be an ideal place for a service station and motel — IF someone moved the mountain.

Well, even though some of the folks in town called it "Kaspar's Folly," that's what Joe Kaspar decided to do. And he did it!

There were problems naturally. Some people wanted the mountain moved; others didn't. Blasting with dynamite in the middle of a community and just above a trans-continental highway takes expert skill, perfect timing and effective public relations. And to move 50,000

cubic yards of rock calls for strong-minded men and heavy equipment.

But rock by rock and headache by headache the mountain came down. A highway contractor, with idle bulldozers in town during the winter months, offered to rent some of the heavy equipment at rock-bottom prices. Several people in the area needed rock fill for various purposes and agreed to pay 25 cents a cubic yard for the ground-up initials. And the partners convinced themselves it was more fun than golf to rig up a bosun's chair and pry loose rocks out of the cliff face of a holiday morning.

They believe now that they might have despaired of the work and the \$300,000 investment had it not been for a score or so of "sidewalk superintendents." These kibitzers of construction seemed to ridicule the effort as a waste of energy. They couldn't be allowed the last laugh. No, by George!

The job is finished. In the loop of Highway 30, where "J.K." once adorned a rock, now glows a big "76 — UNION." Beneath it is a sparkling service station canopy and a spacious paved yard. Next door is the Cliff Motor Lodge — finest in Wyoming.

Business is good. Owners Joe Kaspar and Virgil Hagins never bother to look back. They're too busy looking forward.

from the Denver Post /THE END

*A big slice of property near Union Oil's birthplace
has been frustrating oil men for 77 years*

North of Santa Paula, California, just over the hills from where—70 years ago—Union Oil “drillers” dug tunnels into cliffs to tap up-tilted oil formations, a modern wildcat rig is punching a hole deeper into the earth than those pioneers ever expected a well to go.

The well is being drilled on the Ex-Mission San Buenaventura lands, the “lands outside” the Mission. It is called Ex-Mission No. 11.

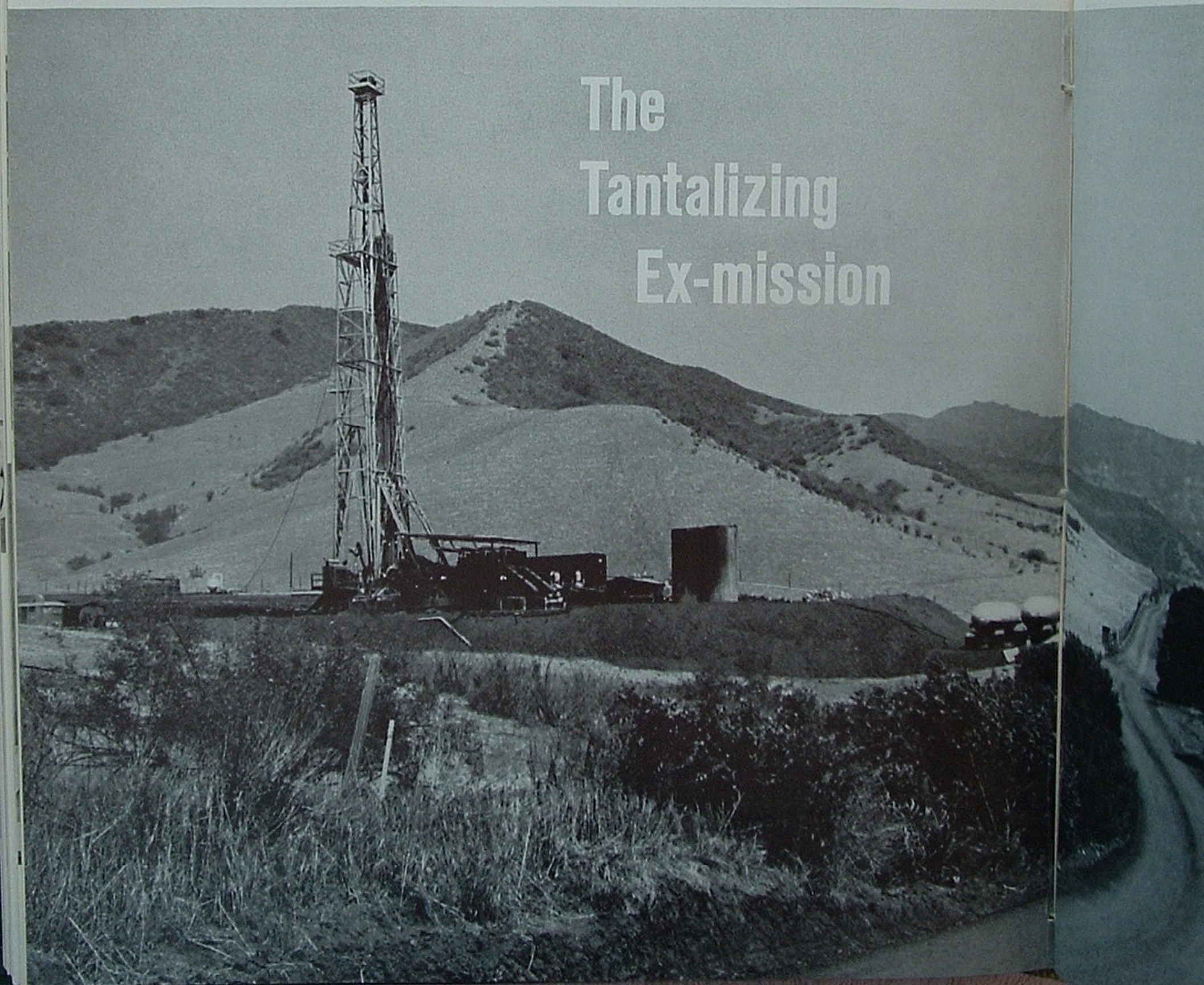
These Ex-Mission lands have tantalized and frustrated oil men since before Union Oil Company existed.

The enormous piece of property—32,000 acres—looks like oil land. Rich seepages intrigued pioneer oil hunters. The first commercial production found by Hardison and Stewart, Union Oil's founders, was in its Adams Canyon about a half-mile from the present drillsite. Adams No. 28, California's first big gusher, helped keep the Company alive when it blew in at a time of financial difficulty. Ventura Avenue, California's second largest oil field, is close to its southwesterly border.

But after 77 years of drilling, no major oil field has been found within the Ex-Mission's borders—yet.

Union Oil bought the mineral rights under the Ex-Mission in 1902. Money paid for the rights saved cattlemen from bankruptcy, when three dry years depleted

The Tantalizing Ex-mission



their herds. The land
silver-green of olive
ground squirrels than
sion is only an hour-
second largest metrop
it is as primitive as
crews climbed its steep

It was because of
hunters dug tunnels in
Sulphur Mountain
Adams Canyon—across
was too precipitous a
on. So instead of drill
almost horizontal shaft

their herds. The land is still cattle country, dotted with silver-green of olive orchards and populated by more ground squirrels than people. Even though the Ex-Mission is only an hour-and-a-half drive from the nation's second largest metropolitan area, Los Angeles, much of it is as primitive as when the Company's first drilling crews climbed its steep hills and into its valleys.

It was because of the rugged terrain that the oil hunters dug tunnels in addition to drilling wells.

Sulphur Mountain, which forms one of the walls of Adams Canyon—across the ridge from the new wildcat—was too precipitous a cliff to perch derricks and engines on. So instead of drilling, the pioneers sank 30 or more almost horizontal shafts into the side of the mountain to

tap its deposits of oil-bearing sands. Some of the tunnels were 1600 feet long, deeper than most "deep" wells of the day.

About 15 of the tunnels are still producing—but far more water than oil. Their flow is brought to tanks where the oil is skimmed off and the clean, fresh water allowed to run down the canyons for cattle to drink. At one location, the entire stream of a creek is also sent through tanks to remove oil that oozes into the water from natural seepages.

None of the tunnels is a very dependable producer. Their flow varies with the rainfall: little rain, and the flow stops; in wet years underground water courses through them, washing out more oil.

This subterranean water has been the means of locating many of the shafts. During these past 70-odd years, most of the entrances have collapsed. But now and then, water fills an old tunnel, breaks through the barrier, and gushes out. When this happens, production men from Santa Paula run a pipeline into the tunnel so that the flow can be captured and the oil recovered before it pollutes the water used by cattle.

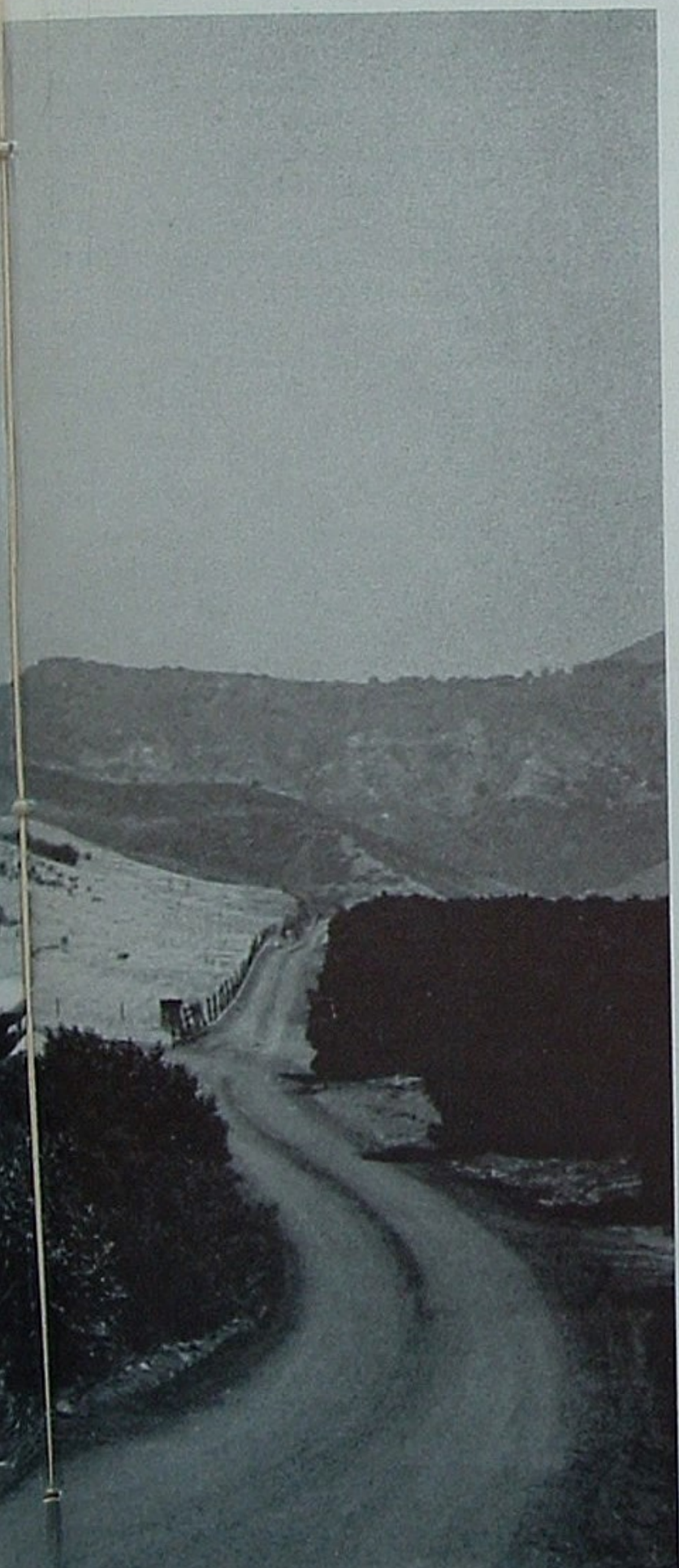
The obvious oil on the Ex-Mission—from its tunnels, seepages, and shallow wells—is only skin deep. The present problem is to locate the commercial production geologists feel underlies the property, perhaps far down.

They know the subsurface geology of the Ex-Mission is as irregular as its rugged surface. They know they can find oil only by punching enough holes in the ground. Wildcat wells such as Ex-Mission No. 11, and others planned for the present exploratory program, should either find sands that are productive in the nearby areas, they say, or yield information leading to formations where substantial quantities of oil have been trapped.

When that happens, the Ex-Mission San Buenaventura will finally live up to the promise it has been making all these years.

/THE END

The tall derrick is Ex-Mission No. 11, a wildcat drilling on the 32,000-acre Ex-Mission Buenaventura in California, some of the Company's oldest producing property. District Superintendent Ben Blanchard (at right) rests his hands on a pipe leading into a tunnel dug on these rugged lands by pioneer oil hunters.



BUSINESS HIGHLIGHTS OF THE MONTH

TO FIGHT A FIRE, PRE-PLAN FOR IT.

The prevention of fires and other unwanted emergencies demands the constant attention of refinery people. However, when such an emergency does arise, it is essential that everything and everyone are organized to assure the most effective use of manpower, materials and time. The modern approach to such emergencies is pre-planning.

Operating Department supervisors at Oleum Refinery recently conducted such a pre-emergency planning session. Each of five foremen presented a hypothetical emergency to the group and then explained in detail how the problem should be handled. The subject was then opened to the group for questions and discussion.

Similar pre-planning sessions are being considered for training in subjects other than emergencies.

DE-COKING FROM THE BOTTOM OF THE DECK

Petroleum coke, as produced at our Oleum and Santa Maria Refineries, generally is classified in two categories — lumps and fines. The coke fines are less marketable than lump coke, thus it is desirable to produce as small an amount of fines as possible.

Coke is produced in large vertical drums and is removed through the use of a cutting tool using high-pressure water as the cutting agent. A pilot hole approximately two feet in diameter is first drilled through

the coke bed. Then lateral cutting, again using high-pressure water, dislodges the coke. It has been found that removing the coke from the bottom of the drum upward as much as possible, instead of from the top down, reduces the production of fines and conversely increases recovery of the more marketable lump coke.

Since the Oleum Coker started up in 1941, it has produced approximately 2.4 million tons of coke. The production rate this year is estimated to be 500 tons per day. Santa Maria Refinery, with coke production of about 1.2 million tons since its start-up in 1955, is averaging about 620 tons per day this year.

The marketing of this end product rests largely with Collier Carbon and Chemical Corporation.

Refining, from J. W. Towler

TEACHING FOR TEACHERS

As a part of its continuing public information program, the Western Oil and Gas Association in 1960 inaugurated a Teachers' Workshop Forum. Teachers in the Los Angeles area are provided a one-week program on various phases of the oil industry and its functions.

This summer, as Union Oil Company's contribution to the program, Research hosted two groups of 50 teachers. They were given a day-long orientation on the role of research in the technological development of the petroleum industry.

Research, from W. E. Bradley

OIL SEARCH TURNS TO THE FAR EAST

Union Oil's exploration in foreign regions of the world is shifting from west to east. Recently, agreements have been made to assign varying interests to other operators in Union's concessions in Argentina, Costa Rica and Panama in return for additional exploratory work. These moves will practically close the major foreign exploratory programs conducted by the Company in the Western Hemisphere during the the past few years.

• • •

Meanwhile, recent developments in the Eastern Hemisphere are serving to expand our South Pacific activities and make possible our entry into Southeast Asia for the first time.

Union Oil Development Corporation, a Union Oil Company of California wholly-owned subsidiary, has taken assignment of a 48% interest in a prospecting permit covering six million submerged acres in the Gulf of Papua, Island of New Guinea, Territory of Australia. The data from a seismic survey conducted in the Gulf of Papua are being surveyed.

Also, a preliminary geologic investigation is in progress of 10,000 square miles of exploration permits in Burma. Our purpose will be to determine the oil and gas potential of this region.

In eastern Australia, Union's first exploratory well, Cabawin No. 1, on a three-week production test, flowed an average of 60 barrels of high gravity oil and 500,000 cubic feet

of gas per day. The well is now shut in. A second well, Cabawin East No. 1, located four miles to the east of the discovery, is currently drilling. Seismic operations continue on other parts of the 40-million-acre concession.

In the Spanish Sahara, North Africa, the Union-Daora No. 1-1 is drilling below 12,000 feet and approaching the proposed total depth. A tentative location has been made for a second well to 12,000 feet approximately 20 miles to the southeast. The seismic survey of our 1.7-million-acre concession is being continued.

Field, from Basil Kantzer

"76" IS SERVING NEVADA COPPER MINES

We have successfully concluded negotiations with Kennecott Copper Corporation to supply their Ely, Nevada operations with gasoline for the next year. Included are open-pit mines, milling and smelting operations at the towns of Ely, Kimberly, McGill and Ruth, Nevada. Gasoline deliveries will be made by tank car.

Union's newly-constructed San Francisco International Airport Terminal facilities are efficiently supplying the aviation gasoline and turbine fuel requirements of Japan Airlines and Western Airlines.

In April of 1962, Seattle is sched-

uled to open its Century 21 World's Fair. We are happy to share in the progress this exposition depicts and are supplying the petroleum requirements of many contractors at work on the project.

Marketing, from C. H. Finnell

SAFETY HONOR — *On the eve of his retirement late this year from Union Oil service, James E. Hill, right, Manager of Fire & Safety for the Company, was accorded a Certificate of Appreciation by the American Petroleum Institute. He has devoted 20 of his 40 Union Oil years to the study and prevention of petroleum industry fires and accidents. His counsel and experience have been sought by and given to countless other segments of industry and to municipalities. His proudest realization, he told Elmer Mattocks of the API staff, is the exceptionally fine work now being done throughout Union Oil Company toward the protection of life and property.*

from N. T. Ugrin



SAFETY RECORD — *Along with producing greater quantities of the Finest lubricants, the Lube Oil Department at Oleum Refinery has achieved an outstanding safety record — more than one million man-hours without a disabling injury. From left, Refinery Manager Walter T. Jameson is seen congratulating the department's Owen J. Loftus, George J. Culp, Fred Herrod, Jose Romo, Clyde L. Caldwell, and Nicholas Martin for their accomplishment and for the Accident Prevention Award received from the American Petroleum Institute. This type of performance by all departments has resulted in Oleum Refinery's current unbroken string of over 1,823,000 man-hours without a disabling injury.*

from D. G. Probst



Big Storage for Big Jets

Built for the "jet age" and described as the world's finest commercial air facility, Los Angeles International Airport is being pushed rapidly to completion. The 50-million-dollar project includes a 12-story Control Tower and Administration Building, a spectacular Theme Structure with its sky-high restaurant and observation deck, and eight Satellite Buildings to accommodate various airlines.

Nearly 6½ million passengers were handled at this airport last year. A much larger volume of business anticipated for the near future can now be accommodated without crowding and with greater convenience.

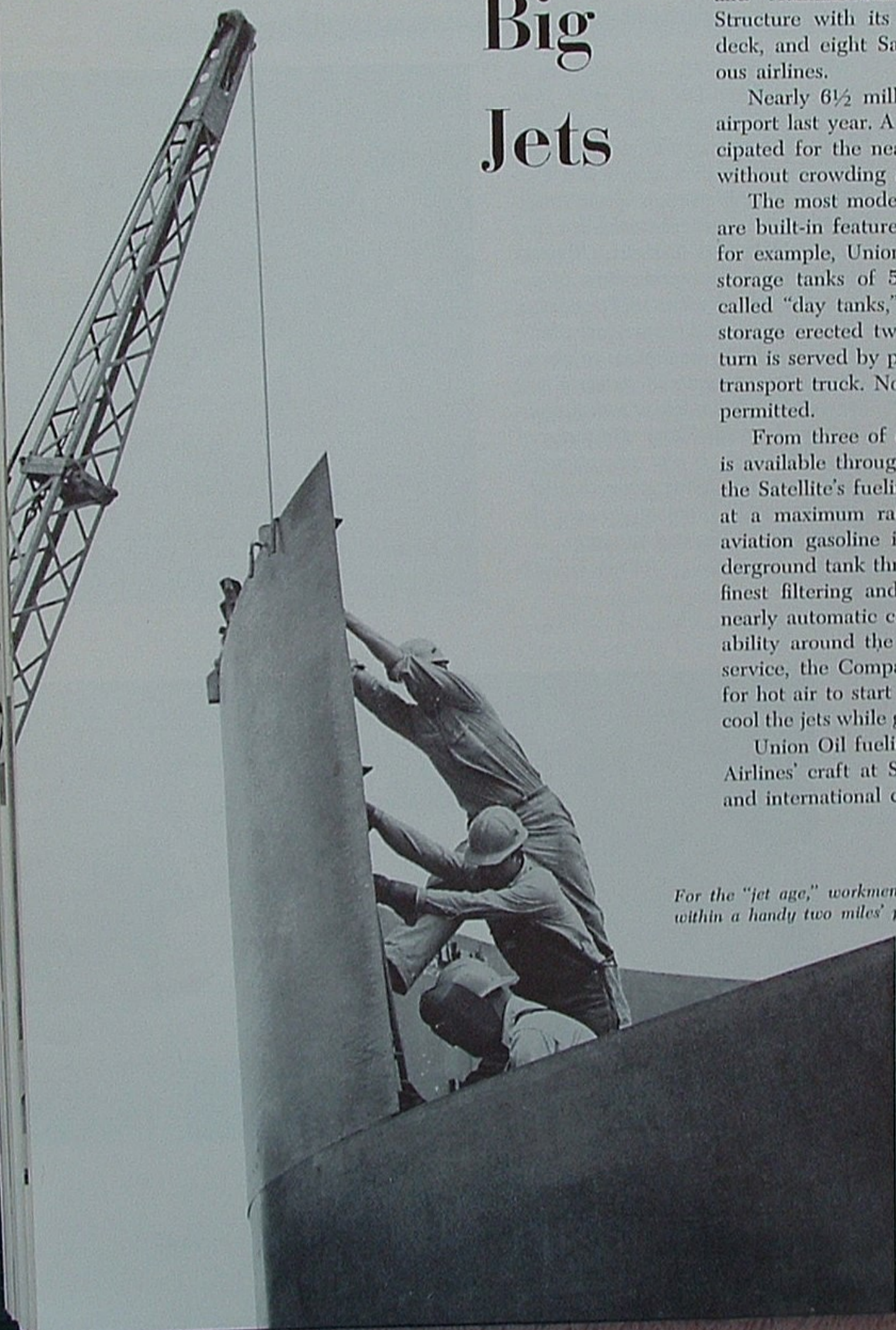
The most modern fueling equipment and techniques are built-in features of the Satellites. At Satellite No. 5, for example, Union Oil has installed four underground storage tanks of 50,000 gallons capacity each. These, called "day tanks," are supplied by pipeline from bulk storage erected two miles distant. The bulk storage in turn is served by products pipeline or, in emergency, by transport truck. No direct fueling of aircraft by truck is permitted.

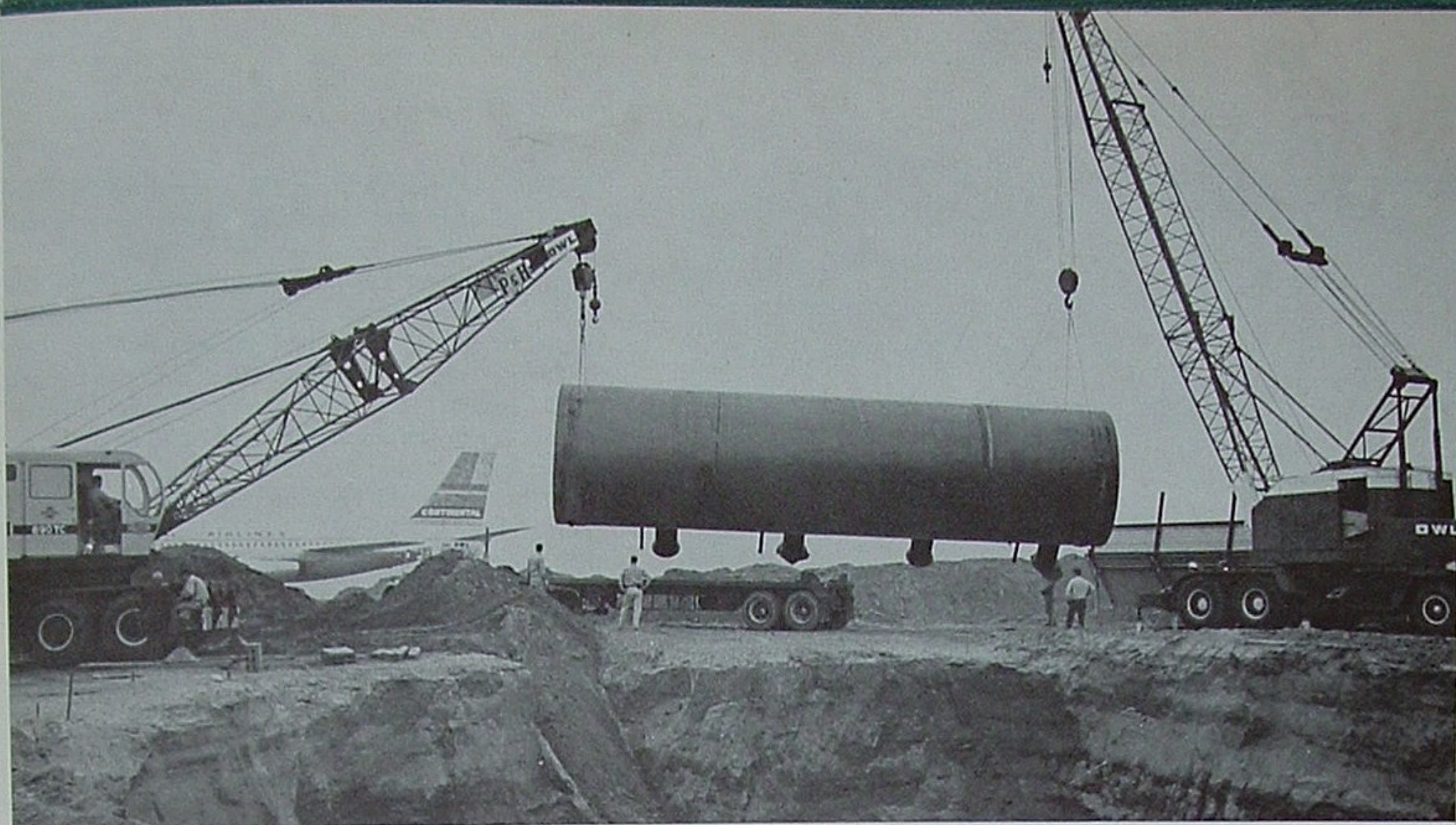
From three of our underground "day tanks" jet fuel is available through 20 fueling hydrants spaced around the Satellite's fueling loop. It can be put aboard the jets at a maximum rate of 2400 gallons per minute. Our aviation gasoline is dispensed from the remaining underground tank through a separate 20-hydrant loop. The finest filtering and metering devices are coupled with nearly automatic controls to assure quality and dependability around the clock. As an additional Minute Man service, the Company is supplying underground outlets for hot air to start jet motors and electricity to light and cool the jets while grounded.

Union Oil fueling services, besides handling Western Airlines' craft at Satellite No. 5, will serve other U. S. and international carriers at Satellites Nos. 2 and 6.

/THE END

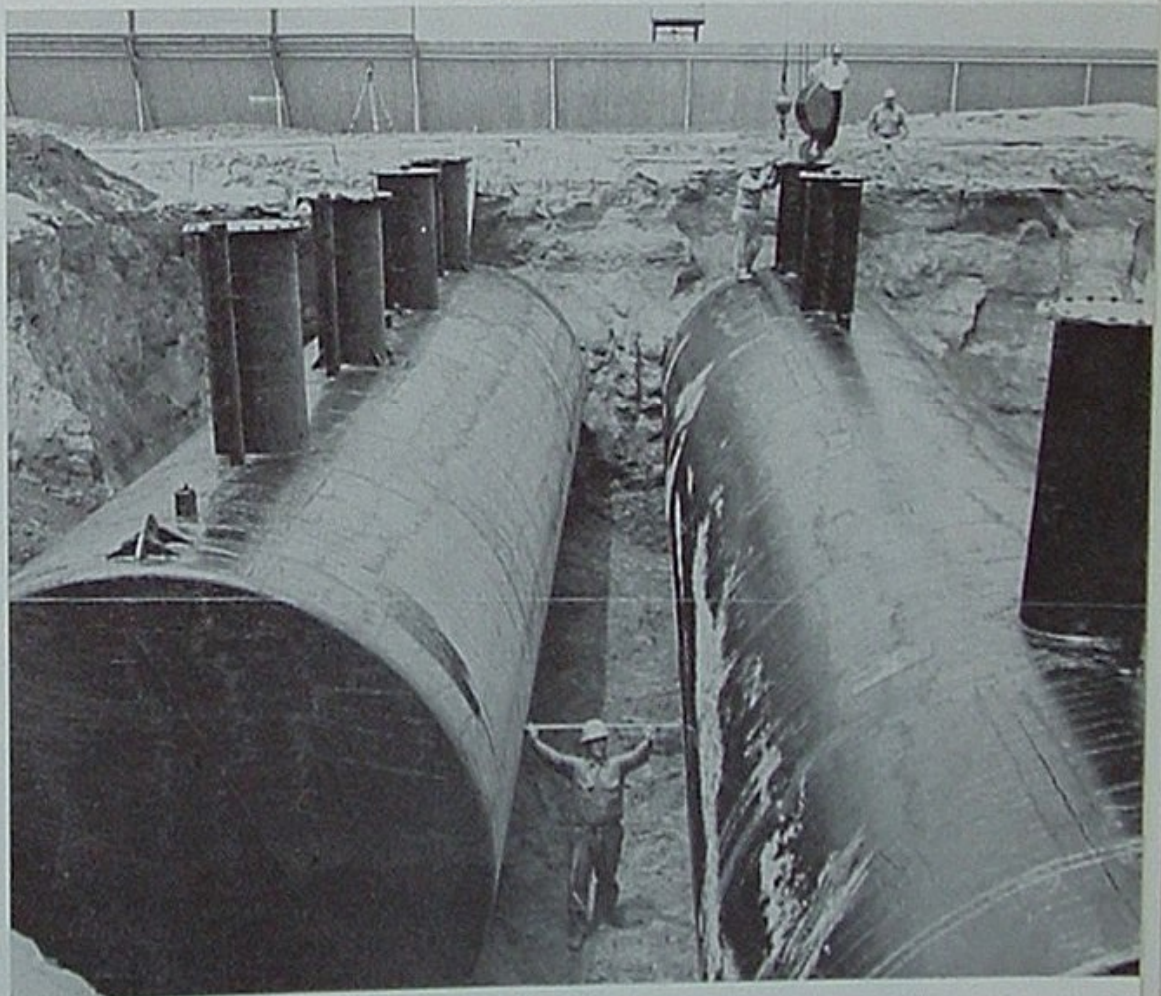
For the "jet age," workmen are erecting Union Oil bulk storage tanks within a handy two miles' pipeline reach of International Airport.





One of four 50,000 gallon underground "day tanks" is being lowered into position for its powerful role of jet fuel service.

The tanks are so large that their transfer across crowded Los Angeles County posed some difficult problems of timing and selection of highway routes.



In place near Stellite No. 5, the big containers are given several asphaltic coats and rigid inspection prior to burial.



Well ahead of the airport's completion, Union Oil's 76 Turbine Fuel hydrants, submerged, are open and ready for big jet business.

*Union Oil announcer uses a
"Typo" to AD-vantage, that is,*

An error hits a home run

A "typo" is printer's slang for a typographical error or other *blooper* that somehow escapes every proof-reader's eye and gets into the printed publication.

During a recent Dodger baseball game in the Los Angeles Coliseum, Announcer Vince Scully mentioned over the air that a "typo" had gotten into Union Oil's 1961 Dodger Family Album dealing with the life and baseball exploits of Pitcher Sandy Koufax. Furthermore, the announcer added, to the first 20 fans spotting the error and notifying Box 7600 by card or letter, free box-seat tickets would be issued for future games.

The *blooper* is a picture showing left-hander Koufax gripping the baseball in his right hand alongside right-hander Drysdale throwing with his left. Also, the "LA" insignia on Drysdale's cap is backward. Obviously the layout artist who put the booklet together reversed the original picture and confused two of the best throwing arms in professional baseball.

If you think baseball fans aren't sharp or nobody was listening to the broadcast, listen again:

Next day in Union Oil's P.O. Box 7600 arrived not 20 responses but over 5000. They came on cards and in envelopes—all shapes and sizes—regular mail, airmail, special delivery, and under the front door.

Amazingly, a great majority of the writers found the error Scully had in mind, and the others found

Over 5,000 letters greeted Terry Padilla and Margie Quinn of Advertising following Announcer Vince Scully's challenge to Dodger fans over radio. Though 20 sets of free box seats were offered as prizes, the Company received a number of tie entries and stretched the ducats to 37 sets.



several more. Some corrected the book on Sandy's age by a year, and even his weight by a pound or two. In a photo showing Sandy as he "heads for the pitching mound," evidence was found by another baseball sleuth that he was more likely heading for the dugout. Not an undotted i or an uncrossed t escaped their mass scrutiny. Man, if you have anything to hide, don't be a *pro!*

Aside from turning a printing error into an advertising homerun, this side competition via the air waves served as quite a barometer. If more than 5000 persons found the hardly perceptible mistake and hurried to write a letter, think of how many more must have looked in vain. Or how many thousands of others heard the challenge with a smile and said, "Let George do it. I never win nothin' anyhow!"

The response, in fact, confirms what all other measuring devices have to say about Union Oil's sponsorship of Dodger baseball broadcasts. Namely, we are talking daily to a listening audience measured in up to a million receiving sets. And out of sportsman-like appreciation, thousands of listeners are driving into our service stations for "76" products.

Even the Dodgers themselves are getting into the Spirit of "76"! When they take off in their special airplane for games away from home, the ship is powered with nothing but the *Finest*.

/THE END



Fueled with the Finest, the Dodgers' private airplane embarked on the team's most successful road trip of the year.



Among those boarding were, from left, Norm Larker, Gil Hodges, Vince Scully, Manager Walt Alston, Gordon Windhorn, Ron Fairly, Bob Aspromonte, Willie Davis and Roger Craig. They were leading the National League when their airplane returned to Los Angeles.

*The sportsman's beach-buggy
has found a job in industry*



a day in the d

Union Oil Company has a sand dune problem.

Not in the hinterlands of Australia or in the Sahara Desert, where we are searching for oil. But in California, due west of the fine farms, ranches and cities of Santa Maria Valley.

Here along a three-mile-wide strip of the Pacific Coast the ocean has been manufacturing white sand for countless centuries. The steady east-bound wind in turn has dried the sand particles and piled them into great mounds and rows, in giant imitation of ocean waves.

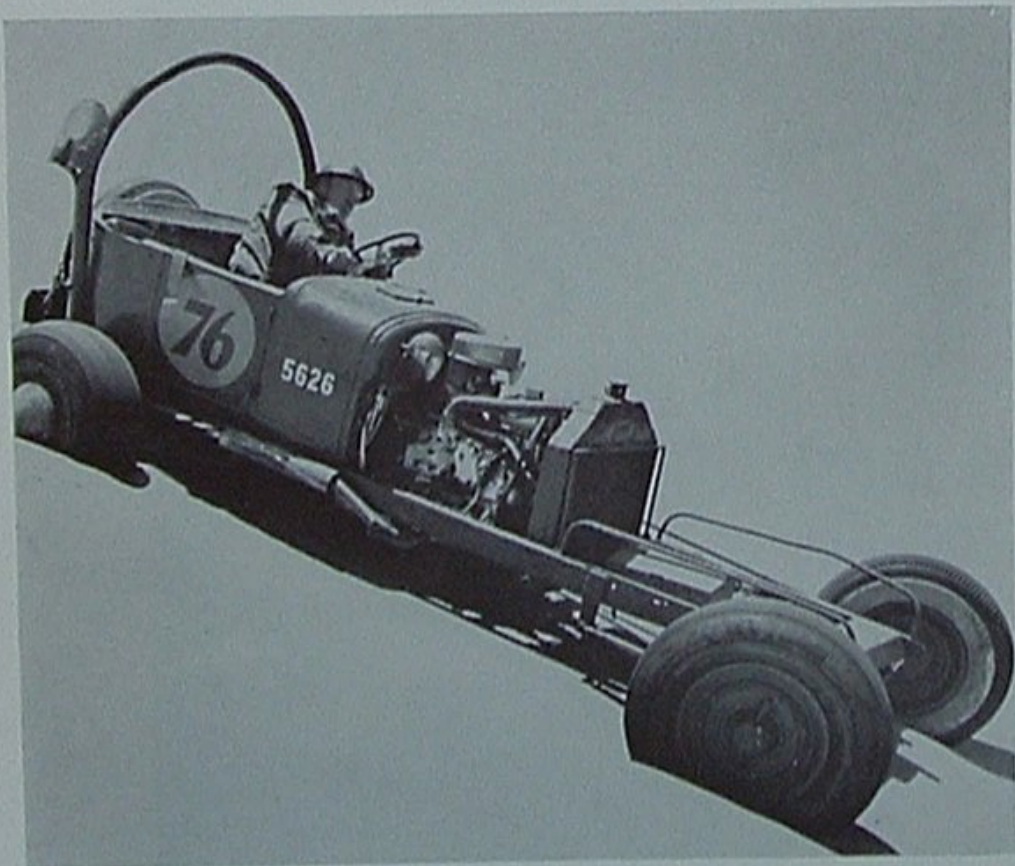
Our problem is that sand dunes also move like ocean waves — not as fast or noisily — but just about as steadily and relentlessly. They'll bury a pipeline 20 feet deep one year, and at a later date leave it suspended in thin air.

It was partly because of the sand dunes that Union Oil located our Santa Maria coking plant right in their midst. The land was good for little else and there was a lot of it available — at a reasonable price. Our people believed they could find a way to whip the shifting sand problem or at least learn to live with it.

The cultivation of ice-plant on nearby dunes and the growth of a large coke pile to the southwest arrested all immediate danger of losing the refinery in a sand storm. But one serious problem remained. Waste water from the plant had to be disposed of in the Pacific. And the only way to reach the ocean was by outfall pipeline across those shifting sand dunes. But how can you keep pipe buried in a heaving terrain?

At first, our *cokin' folk* at Santa Maria tried to maintain a sort of dirt road across the dunes and "walk" the pipeline in a four-wheel-drive truck. But the road was no match for the dunes and the driver too often had to be rescued by caterpillar tractor.

Then one weekend, someone's fancy was caught by one of those new-fangled, good-for-nothing "beach bug-



Here comes the strangest vehicle in Union Oil's automotive fleet, a "beach buggy" used to patrol our waste-water pipeline west of Santa Maria Refinery. At the wheel is Maintenance Foreman John Christian.

In the dunes

gies" the kids were concocting out of old automobile parts. Equipped with an extra-long frame, stripped of all comforts, and rolling on big doughnuts of tires, these strange vehicles were somehow crossing the dunes without benefit of highways. If the kids could do it, why not the old man?

Well, Maintenance Foreman John Christian might resent the "old" label — ain't 65 yet — but he is Union Oil's one and only dune driver. His beach buggy, complete with roll bar, was made from old auto parts in our Santa Maria Refinery shops. And once each week you'll find him, as our photographer did, scooting across the dunes in quest of exposed pipe.

It's not the safest or softest ride in the world, but there's nothing like it for sheer adventure. A dune can present a 20-

foot barrier in front of you or trap you into a sudden, jolting descent. One second you're on a hard-packed table as smooth as the Freeway, the next you're up to the hub-caps in soft, powdery stuff. The driver has to have large sand goggles in lieu of a windshield, a seat belt, an uncanny sense of direction, dune savvy — and, by no means least, a shovel.

John Christian and his beach buggy do the whole

inspection job, going and coming, once each week in about an hour. Where he finds pipe exposed, he goes to work with a shovel or, on rare occasions, orders a bulldozer out to put tons of sand back in the wind's excavation. When a visitor goes along for the ride, John usually stops for a few moments at one of the interesting shell mounds found in this coastal desert.

THE INDIANS LIKED PISMO CLAMS

Incidentally, we have several amateur archeologists at Santa Maria Refinery. One of them is Storekeeper Bill Deane, whose souvenir collecting began when he was shot down over Germany in World War II and had nothing to do for two years but dig for historical loot in a prison camp.

"Chris" introduced us to Bill, and Bill led us to his personal beach buggy and souvenir collection in the Deane garage near Pismo Beach. From a wall full of war memoirs, Bill and his wife singled out several displays of flint arrowheads, stone utensils, and a well-preserved Indian skull — most of them taken from shell mounds west of the refinery.

His explanation of the shell mounds is most interesting: The coastal aborigines were very fond of Pismo clams, just as we are today. Inland a mile or so from their favorite clam beaches was a spring, one of the area's few sources of fresh water. Here also a clump of shrub-

Continued

The object of John's weekly patrol is to cover any sections of pipe exposed by wind. Here even a snow fence failed to halt shifting sand.





Storekeeper Bill Deane and his wife, amateur archeologists, have found an Indian skull and arrowheads in the dunes. These, added to Bill's World War II collection, decorate the beach-buggy garage.

a day in the dunes—continued

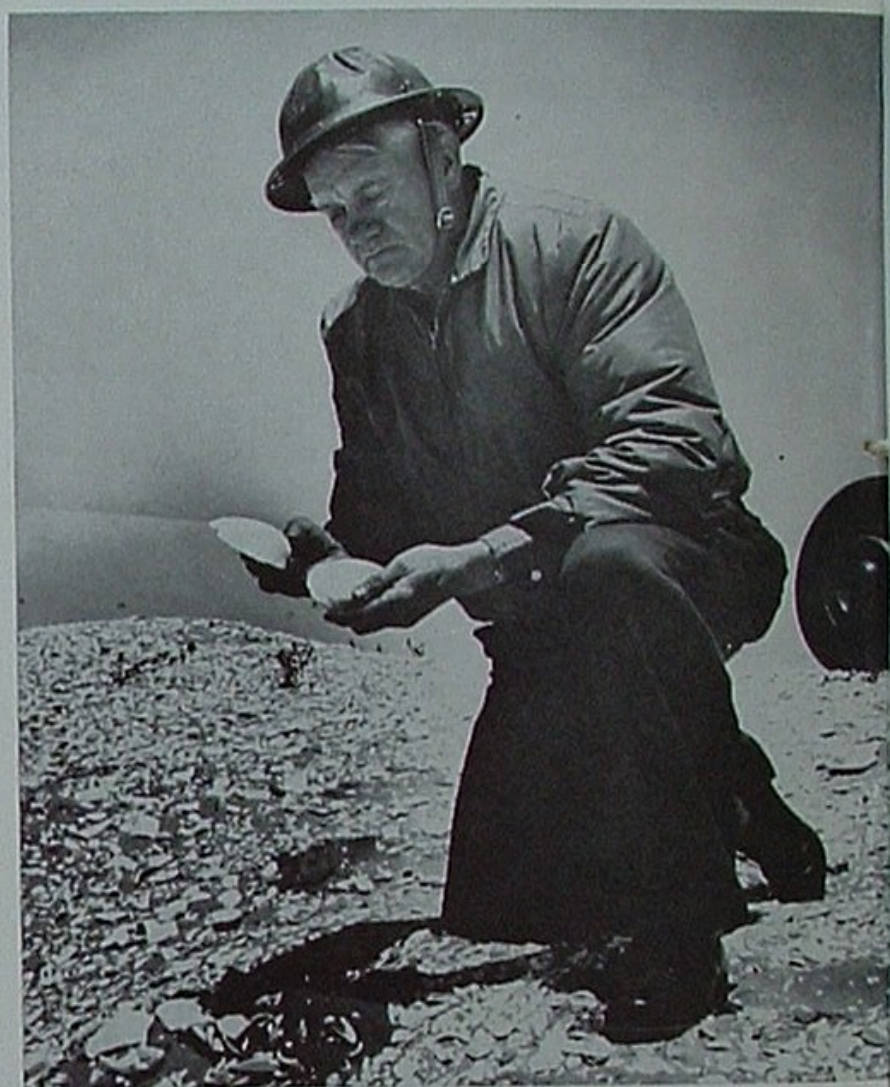
bery grew, affording some shelter from the wind and sand. So the place became the scene of many an Indian clambake and the shell mounds grew and grew.

Evidently property rights around the spring were bitterly disputed. Hence, the arrowheads and the skull of a young chief who may have been too stuffed with seafood to defend himself.

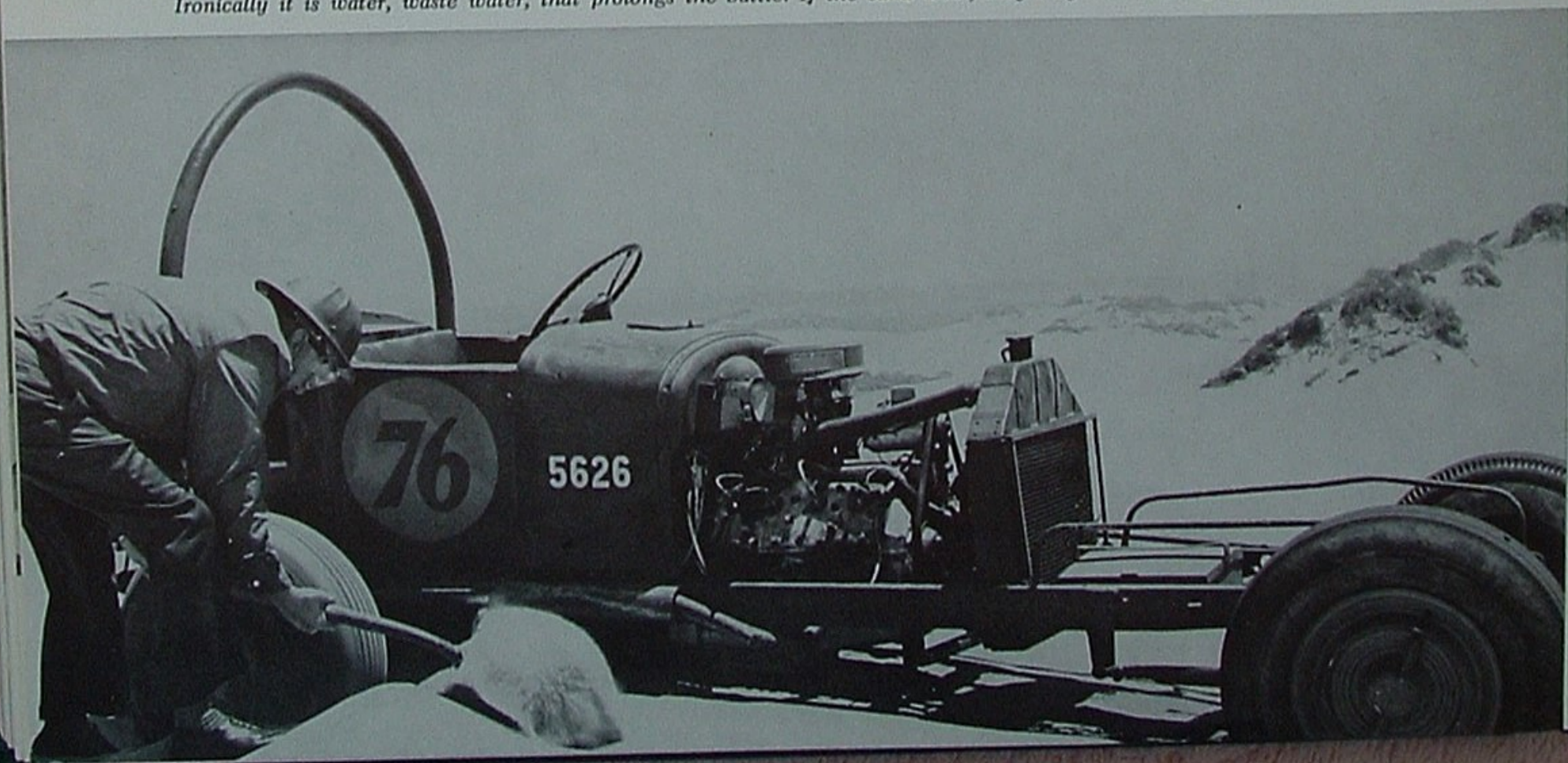
Although John Christian constantly gives his beach buggy the "gun" through this sandy Indian country, he never carries one. The best weapon out there is a shovell

/THE END

The shell mound John Christian led us to is believed to be the scene of many an Indian clambake and fight. A nearby source of fresh water was the prize aborigines fought for.



Ironically it is water, waste water, that prolongs the battle. If the sand wins, they may someday dig up a beach buggy and shovel.





GRAND OPENING of a new Union Oil service station at Beale Air Force Base, California, was handled with military informality by, from left, Col. J. A. Brown, USAF, Union Sales Manager J. C. Garvey, George Schaefer of Post Exchange, Col. R. B. Hurley, commanding officer of Beale, Consignee Pat Patterson, Retail Supervisor R. B. McDonald, Real Estate Rep. H. Acquistapace, and J. Jorgenson and S. Bass of Post Exchange. Gasoline sales of 4,450 gallons the first day exceeded expectations, and a monthly volume of 100,000 gallons is anticipated.



MABEL BROWN of the Industrial Relations Department greets nearly all applicants for new jobs at Union Oil Center. During the past 15 years, she has handled the preliminary interviewing of more than 100,000 applicants. Of that total, 4,279 have been hired. "What on earth are you shooting me for?" she asked our photographer on the 25th anniversary of her own employment by Union Oil.

MONEY GROWS ON TREES! Nicholas Norton gets some powerful therapy from "money tree" held by his wife, Nancy. Nick is recovering at St. Luke's Hospital, so his fellow workers at Union Oil's Southwest Mountain Division, Phoenix, decided to help him. Tree roots are of coins and foliage is the real "green" stuff as a gesture of friendship and helpfulness. In bloom, the tree has a value of \$200.

from Phoenix Republic-Gazette



in focus



AN ACQUISITION CONTEST, conducted by California Central Division, netted the acquisition of 29 service station accounts, or a gain of 130,000 gallons of gasoline and Diesol business per month. In the photo, Phyllis Gallant draws the winning name for a "Mystery Prize" as, from left, Managers W. M. McClure, J. S. Kent and R. D. Davis await the result. The prize was a full set of Minute Man tires, won by Cliff Kimbrell of Visalia.

from James F. Boland



J. V. "VIC" WENNERHOLM, Oleum Refinery retiree since 1957, won the Gold Medal and three class medals at the Second Annual Rose Festival West Coast Rifle and Pistol Shoot held at Camp Withycombe, near Portland. Despite a cross wind, he scored a perfect 100 on 20 shots with a .30 caliber rifle at 600 yards. He also won the 200 yard rapid-fire, 200 yard standing, and aggregate sharpshooter class medals. He modestly attributed his marksmanship to luck!

from Don Probst

RON MCDONALD, left, fire and safety inspector at Los Angeles Refinery, receives the California Air Force Association "Man of the Year" award from past-National Commander Arthur F. Kelly, vice president of sales for Western Air lines. Ron is deputy commander of the California Wing. The award is presented annually for outstanding service to the association.

from Jim Hawthorne



CAROL CLEONE, daughter of Warehouse Foreman Ray Cleone, Oleum Refinery, received the highest grade-point average in her Napa High School graduating class. In recognition she received a desk lamp by the Rotary Club of Napa and a scholarship to University of California from the 20-30 Club of Napa.



MARTHA WREN, daughter of Laboratory Foreman Jack Wren at Oleum, similarly topped her Napa Junior College graduating class. She was presented a desk lamp by the Rotary Club of Napa and a scholarship by the Napa City Teachers' Association. Martha was commencement speaker at the graduation exercises and will enter University of California at Davis.

from Don Probst



TOP COMPANY BOWLERS, as determined by the 1961 Burnham Playoff, are the Oleum San Pablo No. 1 team with a score of 2787. The winners are, from left, John Urone, Newman Tate, Mike Matanic, Al Michelcic and Jim Cooper. Urone also won a bowling ball presented by A. C. Stewart for rolling the tournament's highest individual series - 619. Oleum Refinery teams have now retained the Burnham Trophy for four consecutive years and have won it 13 times.

from Don Probst

JOHNNY McDOWELL and JOE BYRNE, right, of Los Angeles Refinery kept at least two pieces of Burnham Playoff hardware from going to Oleum. Johnny had a high game of 225 and Joe a series of 564 to earn the mantle-piece each took home.

from Jim Hawthorne



SERVICE



EMPLOYEES

September 1961

40 YEARS

WILLIAM C. HAMMOND.....Mktg.—N. W. Div.

35 YEARS

H. B. ANDERSON.....Mktg.—Cal. No. Cstl. Div.
 VERNE C. BRAGG.....Oleum Refinery
 KEITH BURGESS.....Comptrollers—H.O.
 EDWARD M. CHAPIN.....Los Angeles Refinery
 PETER GLYNN.....Pipeline—No. Div.
 JAMES P. SIDFORD.....Mktg. Admin.—H.O.

30 YEARS

CLARENCE PETERSEN.....Oleum Refinery
 LOUIS G. WEIR.....Mktg.—Cal. So. Cstl. Div.

25 YEARS

RAYMOND M. FULP.....Los Angeles Refinery
 RAYMOND K. JENSEN.....Santa Maria Refinery
 JOHN A. MULLINS.....Cal. Cent. Dist. Supt.
 DAISEY A. SHOMBER.....Mktg.—Oregon Div.
 DOROTHY STATLER.....Public Relations—H.O.
 DEREK S. POVAH.....Indus. Relations—H.O.

20 YEARS

LAWRENCE L. BOND.....Field—Santa Fe Springs
 ROY F. BROOKS.....Mktg.—Hawaii Div.
 RICHARD S. CROG.....Research—Brea
 HARRISON W. HOWARD.....Los Angeles Refinery
 RICHARD W. HOWEY.....Field—Pacific Coast
 SHIRLEY L. JACKSON.....Mktg.—Oregon Div.
 LEONARD N. KING.....Oleum Refinery
 LESTER M. KING.....Los Angeles Refinery
 WALTER J. KJELDAHL.....Glacier Division
 HERSHEL PEARCE.....Los Angeles Refinery
 FREDERICK C. WOOD.....Research—Brea

15 YEARS

HELEN M. CHAMBERS.....Comptrollers—H.O.
 BAGE B. CHARTER.....Oleum Refinery
 VICTOR R. CHASE, JR.....Mktg.—Cal. So. Cstl. Div.
 GERALD H. CHRISTIE.....Compt.—Gulf Division
 LEROY D. ELLINGSON.....Glacier Division
 T. A. GOULD, JR.....Pipeline—No. Div.
 PATRICIA E. GRANGER.....Comptrollers—H.O.
 GEORGE B. HALL.....Land—H.O.
 RICHARD A. HIGGINS.....Field—Rocky Mtn. Div.
 KERRAGEN C. LEDET.....Field—Gulf Div.
 ROBERT W. MARTIN.....Pipeline—No. Div.
 CHAS. R. MICKELSON.....Los Angeles Refinery
 JOHN J. McDOWELL.....Los Angeles Refinery
 CLIFFORD J. MCGHEE.....Pipeline—No. Div.
 IRWIN A. OLSON.....Oleum Refinery
 ROBERT W. PORTLOCK.....Pipeline—So. Div.
 ROSETTA RUSSELL.....Comptrollers—H.O.
 THOMAS W. SMITH.....Pipeline—So. Div.
 G. T. SONODA.....Mktg.—Hawaii Div.

JOHN A. SWANSON.....Glacier Div.
 RICHARD TOMITA.....Mktg.—Hawaii Div.

10 YEARS

JAMES F. ABERNETHY.....Mktg.—Cal. So. Cstl. Div.
 DORMAN O. ALFORD.....Research—Brea
 ROBERT A. ARMSTRONG.....Los Angeles Refinery
 WALTER I. BARNET.....Research—Brea
 DANIEL R. CRAWFORD.....Field—Rocky Mtn. Div.
 WILLINE DUTTON.....Field—Rocky Mtn. Div.
 GEORGE M. FARTHING.....Expl.—Pacific Coast Div.
 ROBERT L. FINN.....Field—Gulf Div.
 CARL M. GLAZE.....Santa Maria Refinery
 F. HEISTERMANN.....Pipeline—So. Div.
 ELIZABETH IVINS.....Executive—H.O.
 HARRY G. JOHNSON.....Mktg.—Oregon Div.
 A. EILEEN KULHANEK.....Field—Rocky Mtn. Div.
 HOWARD O. LONBERG.....Oleum Refinery
 CLYDE F. MATHIESON.....Oleum Refinery
 FRANK McCORMICK.....Field—Central Div.
 EDWIN H. MILLER.....Glacier Div.
 WILLIS B. PARIS.....Los Angeles Refinery
 ARTHUR J. RAY.....Field—Pacific Coast Div.
 CHAS. A. REDPATH, JR.....Nat. Gas & Oil—H.O.
 GEORGE E. ROBINSON.....Aud. Mktg.—H.O.
 BARBARA M. WILLIAMS.....Pipeline—H.O.

CONSIGNEES - DISTRIBUTORS

September 1961

35 YEARS

P. M. LEE.....Roseburg, Oregon

20 YEARS

H. R. COLLINS, JR.....Susanville, California

15 YEARS

SAM CRIVELLO.....San Diego, California
 WILLIAM J. SWEENEY & SONS.....Daly City, Calif.
 LOUIS H. TODD.....Oakland, California

10 YEARS

CHARLES EELKEMA.....Coupeville, Washington
 C. M. FISHER.....Anaheim, California
 O. A. HANSEN.....Anaheim, California
 JENKIN-GUERIN, INC.....St. Louis, Missouri
 D. S. MacALPINE.....Ontario, California
 MARION J. LOPEZ.....Salinas, California
 MASTER OIL COMPANY.....Salem, Oregon

5 YEARS

HAVENSCOURT GARAGE.....Oakland, California
 TERREBONE LUBE COMPANY.....Houma, Louisiana
 WILKINS MARKET.....San Jose, California
 ZIA OIL COMPANY.....Albuquerque, N. M.

DEALERS

September 1961

20 YEARS

HENRY F. FIESEL.....Oregon City, Oregon

15 YEARS

R. H. BAILEY.....Whittier, California
 ROBERT C. CLARK.....Merced, California
 DONALD HUENEMEIER.....Reseda, California
 BERT T. KOGA dba BERT'S SERVICE & SALES
 INC.....Honolulu, Hawaii
 MACK SHORT.....Los Angeles, California
 ED SMITH.....Montebello, California
 J. W. TULLY & C. A. BURROW.....Spokane, Wash.
 CECIL WORTHEN.....Las Vegas, Nevada

10 YEARS

BOYD CARLSON.....Garden Grove, California
 R. ENTNER.....Los Angeles, California
 TONY PARINO.....Sacramento, California
 PETER PARRE.....Rogue River, Oregon
 RICHARDSON MINERAL SPRINGS.....Chico, Calif.
 ROWLAND STANLEY.....Leevining, California
 ROY WARFIELD.....Bonanza, Oregon
 JACK WIEGELE.....Beaver Creek, Oregon

5 YEARS

RAY L. BOYCE.....Bakersfield, California
 CEDAR CREEK TRADING POST.....Whiteriver, Ariz.
 JACK E. CONLEY.....Oroville, California
 WILLIAM A. COX.....Ventura, California
 J. R. GILLERAN.....Glendale, California
 L. O. HARRISON.....Phoenix, Arizona
 CHARLES HICKS.....Los Angeles, California
 PINON MERCANTILE COMPANY.....Pinon, Arizona
 THOMAS PRUDE.....Lawndale, California
 J. E. REDDING.....Long Beach, California
 C. C. RICHMOND.....Imbler, Oregon
 ROY RIDER & SON EQUIP. COMPANY Roll, Ariz.
 LOUIS A. & MARION C. SEMAS Hood River, Ore.
 MILTON SNYDER.....Inglewood, California
 SOLVANG MOTORS.....Solvang, California
 SOUTH BAY CHEVROLET.....Chula Vista, California
 STARNES TIRE SERVICE.....Los Angeles, California
 BOYD E. STOLBA.....Glendora, California
 WESTED TIRE COMPANY.....Tacoma, Washington

RETIREMENTS

September 1961

Service Date

LLOYD V. CRITTON
 Southern Field February 13, 1920

RUBY M. FITZGERALD
 Oleum Refinery April 22, 1935

MARIE R. NEHR
 Secretary's February 21, 1923

LAURITS SORENSEN
 Southern Field May 3, 1926

RALPH M. WADGE
 Oleum Refinery April 27, 1923

IN MEMORIAM

Employees:

MYRON ROBERT DUNGAN
 Calif. So. Cstl. Div. July 31, 1961

HARVEY E. GAEDTKE
 Oleum Refinery August 7, 1961

HARRY N. McCRAE
 Industrial Relations July 6, 1961

Retirees:

ARTHUR A. FAWVER
 Research—Brea July 6, 1961

JOHN J. FITZPATRICK
 Seattle Terminal July 6, 1961

MARVIN W. KEMP
 Pipeline & Transportation July 3, 1961

ELROY T. KERWOOD
 Pipeline & Transportation July 4, 1961

GUY WILLIAM SANDERS
 Pipeline Dept. July 29, 1961

BERT WOOD
 Los Angeles Refinery July 21, 1961

UNION OIL COMPANY OF CALIFORNIA
P. O. Box 7600
Los Angeles 54, California

Pipe Organ



HAROLD MILLER — BLENDER OPERATOR

You hear its music
in the West's
most powerful
gasolines

The purr of an automobile engine is created by gasoline that is a mixture of many ingredients.

In some refineries, the mixing is still done by stirring gasoline in big tanks. This method works fairly well, but it is costly and slow.

At Union Oil, we blend the different gasoline stocks electronically, right in the pipeline. Our "pipe organ" combines separate stocks electronically, somewhat like a great cathedral organ blends individual notes into chords.

The Electronic Blender is the first of its kind. One section blends jet fuels, aviation and motor fuels at rates up to 210,000 gallons an hour; another blends turbine and diesel fuels at rates up to 147,000 gallons an hour.

As part of our more than \$20 million Quality Improvement Program at Union Oil's Los Angeles refinery, the Electronic Blender demonstrates again our dedication to finding new ways to improve our products and services to our customers.

So long as we are independent and can remain free to compete — while serving the best interests of our country and customers — the Electronic Blender is simply the forerunner of many new things to come.

YOUR COMMENTS INVITED. Write: Chairman of the Board, Union Oil Company, Union Oil Center, Los Angeles 17, California.

Union Oil Company OF CALIFORNIA



THE WEST'S OLDEST AND LARGEST INDEPENDENT