

Josh Cosden Career Beats Fiction

A spare, broken man came out of his cubby hole in 1939 to a seat of honor beside Lord Duff Cooper, first lord of the British admiralty. The distinguished Briton had come to Fort Worth on his nationwide tour and found a gala affair arranged in his honor. He made one requirement: Joshua Cosden was to ride with him.

Once a prince in the world of petroleum, Cosden was now reduced to a small office and meagre circumstances. He had been all but forgotten if not ignored. Duff Cooper stood his ground and Josh Cosden rode that day in his last moment of glory. Within a year he was dead.

More fascinating than fiction is the story of this man who rose from frail drug clerk to head a \$50 million oil empire, and when he lost it, bounced back to another \$20 million stake. He was acquainted with both ends of the economic ladder; he was a genius in manipulation; he left a memorial of three companies, one which vigorously bears his name today.

The saga of Joshua S. Cosden began in July of 1889 in Kent County, Maryland. As a young man he became a \$20 per week drug clerk. In delicate health, doctors advised him to go west. Not long after he settled in Oklahoma, he became a refiner on less than a shoe string. His initial source of supply was to skim crude oil from rivers and ponds. When his wooden tank wagon leaked, he walked along holding a bucket to catch the oil. Cosden personally peddled his kerosene from house to house.

Discouragement plied upon discouragement for his little "teapot" plant at Bigheart (Barnsdall), Okla. during 1911-12. Twice it was destroyed, once by fire and once by tornado, but somehow he replaced it. The approach of World War I strengthened the market and Josh Cosden was beginning to get on his feet when he had an offer to sell. Without hesitancy he accepted, set out for Tulsa and immediately made plans for another plant on the river.

Before long he had a 40,000 barrel refinery going and his Cosden & Company was well on its way to becoming a \$50 million empire. Once Leo Myer, his tax man, showed him how he could liquidate within 24 hours for \$24 million, and Cosden reportedly refused a syndicate offer of \$100 million for his vast holdings.

Meanwhile, he and his wife, Ottilie, who had borne him three children—Ottilie, Stanley and Josh Jr.—had been divorced. There had been talk of the pretty young wife of Charles F. Roeser, an independent oil man and a neighbor, having become involved in a triangle. Daughter of a wealthy Oklahoma lumberman, she had a polish the Cosdens then did not possess, and she helped in decorating their new lavish home and later the

palatial penthouse of the 13-story Cosden building erected at 4th and Boston. The gossip mill worked overtime and there were stories of a substantial cash settlement. At any rate, Mrs. Roeser was divorced and she and Cosden were married in 1918.

Appointed in regal splendor, the penthouse had a private elevator leading to it, a \$25,000 combination pipe organ and piano. The Cosden riverfront home had the first tiled indoor swimming pool in Oklahoma. The \$10,000 tennis court had imported French clay that would not get muddy.

The first Mrs. Cosden had been given \$1,500,000 and the New York place. Now with his new bride, Cosden set out to cut a swath in the social as well as financial world. He bought the 310-acre William B. Cochrane estate, next to the Astors and near the Guggenheims and Whitneys. Then there was the Newport mansion next to Stuyvesant Fish family. At Palm Beach he acquired from Charles A. Munn the celebrated "Guardiola" with its 800 feet of seawall and Jose Sert murals of the seven episodes of Sinbad the Sailor.

Cosden reportedly had a string of 32 race horses at Saratoga and was called the "Sir Thomas Lipton of the Turf." He and Mrs. Cosden bought a yacht and pointed for a tour of Europe.

While on this junket, they were privileged to meet Edward, Prince of Wales. They also met Duff Cooper. Later when the Prince came to America and there was a clamor among the 400 for entertainment, it was the Cosdens who made the catch and they were "in."

During the visit thieves stole \$150,000 in jewels, and the loss list revealed Lord and Lady Mountbatten were among the victims.

Josh Cosden had visions of even greater riches. The commodity market beckoned and soon he was trading successfully in sugar and then was deeply involved in cotton. The market broke in the 1921 depression with such rapidity he dropped \$300,000 in half an hour one day. His trading had been on margin, and he put up Cosden stock as security. Cosden & Company was jolted and by 1925 Cosden himself was ousted and the concern changed to Mid-Continent Oil Company. He and Nelle Cosden abandoned the penthouse in 1923.

Their good friend Vincent Astor took the Long Island estate off their hands for \$1 million; Mrs. Delphine Dodge bought "Guardiola," but other property went for a song. One estate brought only \$66,500.

The "prince of petroleum" had only his integrity and reputation for business sagacity and energy. He found little encouragement in Tulsa among his old friends, and he pointed for Texas to glean in the oilfields. From 1924-27 he operated an extremely modest lease



JOSHUA COSDEN

business, but fortune smiled again in 1927. He turned a Brown County spread to Prairie Oil Company for \$975,000 and the "rubber ball of the oil industry" was about to bounce dazlingly.

Returning to the East, he enlisted support from Pforzheimer & Co. (the Standard Oil broker), J. A. Sisto & Co., Calvin & Co., and others. It was rumored that Vincent Astor was a principal backer but Cosden denied this. Financial and lay press began circulating stories of a \$5 to \$10 million Cosden Oil and Gas Company. The former figure was nearer correct.

"I do not care for publicity," he told a Daily Oklahoman reporter in 1928. "I simply want to move along quietly and conservatively." "I had to do it," he said. Tall, white-haired, soft of voice,

When he acquired the Gardner lease in Logan County, Okla. for a fancy figure, his staff urged caution in plans for a tank farm and spread.

"The trouble with you fellows," he retorted, "is that you have no vision."

One of the 80,000 barrel tanks was never used, being later dismantled and erected in Ector County, Texas. As it was, his Gardner lease didn't turn out too well but the transferred tank pulled him out of a tight place. Without knowledge of his key officers, he ordered a voluntary proration jumped and filled the tank in time to close a vital trade with a major company.

"I had to do it," he said. Tall, white-haired, soft of voice,

possessed of eyes that pierced and danced, Josh Cosden was magnetic. Some accounted him a ladies' man. He had a gambler's instinct; he smoked a special imported blend of monogrammed cigarettes; he drank only socially but lightly. While he could turn a deaf ear to Tulsa as his new fortunes mounted, he could not to New York and Palm Beach society. He bought estates in New York and Florida, and a smaller yacht.

Given assurances from John Lancaster, T&P president, that the railroad would take his fuel oil, he announced a refinery at Big Spring on July 14, 1928. Already he had made some fabulous trades including the purchase of the Riverland Oil Company in Oklahoma for \$600,000, the Milham Company in Texas. In Howard County he was reported to have paid Mrs. Dora Roberts \$1,000 per acre for 320 acres, then \$119,000 for 1,237 acres on the Stewart ranch. Another trade was rumored for \$1,200,000 in cash and oil for a 160-acre lease.

By the end of 1928 he was said to have had \$2 million in investments in Howard County, and his refinery and a \$550,000 pipeline were well under way.

"Come back to Tulsa," his old cronies urged.

"Where were you fellows when I needed you?" Cosden retorted.

He took a large party with him and spent a week at the Mayo Hotel in Tulsa, but threw only a small bone in saying the Tulsa World was a great oil paper. The first units of an 800-tank car fleet were being delivered. Cosden took them 50 at a time with instructions that they were to be delayed a week or so en route at Tulsa. Later, he sent them back from the Big Spring refinery via Tulsa to Chicago. Thus, his former associates were probably already well impressed when it was estimated in mid-1929 that he could have sold out for \$19½ million.

"His comeback oil men saw in one of the outstanding achievements in the history of the industry," an Associated Press dispatch recorded in June 1929. Cosden's first fortune had been made in seven years; the second in only three.

In Fort Worth, where headquarters for Cosden & Co. were centered around his plush office with its long one-piece, specially woven carpet, members of the staff sometime snatched his sweet-smelling cigarettes and debated whether to sell Cosden stock at \$130.

John Cosden frowned at such timidity, predicting that "it will go to \$510." Confidence was so high that he floated a 50,000-share preferred stock issue at \$100 par value for 105, picking up \$250,000 for himself. Then came the great market crash which none recognized as the trumpet heralding the his-

toric depression. Cosden kept saying it was temporary, that it would be over in six months. Finally he saw his stock sink to 37½ cents and eventually to 25 cents a share.

Notwithstanding, his company was in reasonably good shape but starved for cash. It had shown a profit of \$1,202,000 the first half of 1929 and \$936,187 for the corresponding period in 1930. Still, current bills piled up and the company went into receivership.

George Moore, receiver, brought in J. J. Purcell of Chicago as secretary-treasurer. This crisp ascetic had an almost impossible situation. One day he talked to Cosden in New York, pleading for money (the phone company had just promised to disconnect the phones).

"Don't worry," reassured Cosden "that's what I'm up here for. I'll take care of everything."

Before the day was out Purcell had a telegram from New York. "Please wire me \$25,000 today. (Signed) JSC." This was about every cent of cash the company had, but Purcell sent it.

The crisis had been heightened by Cosden's illness in 1930. For weeks he lay in a critical condition in his more modest Florida home. By 1931 he was back with the company and in 1933 his friends laid \$500,000 on the line, and he stood on the veranda of the refinery office in Big Spring and jauntily bid in the property at a receiver's sale.

Big Spring Daily Herald

COSDEN EDITION BIG SPRING, TEX., SUNDAY, JULY 18, 1954 COSDEN EDITION

Company Stands Today In Solid Financial Position

To appreciate the solid position of Cosden Petroleum Corporation today, one needs to go back to the reorganization of the company in 1937.

One of the elements of the capitalization was the authorized issue in excess of 44,000 shares, par value \$50, of five per cent convertible preferred stock. More than 43,000 shares were issued. Dividends were payable up to five per cent during the years of 1937 and 1938 or to extent of earnings, and thereafter cumulative at the rate of five per cent per annum.

In 1937 there was available something like \$71,000 for dividends and directors paid 2½ cents a share on preferred, or about \$27,000. The next year there were no funds available, and when R. L. Tollett became president in 1940 he could safely predict that the accumulat-

ed arrearage, which then amounted to \$168,938, would get worse before it got better.

One of the first things the management did was to tackle some of the long term indebtedness and pressing current obligations to consolidate the company's position. War, while presenting multiple problems, increased demands for products and Cosden's earnings climbed steadily. Still management pumped earned surplus into the blood stream of the company instead of cutting any melons.

By 1943 the arrearage reached \$506,000, the following year it hit \$586,000, and in 1945 it was \$639,000 or \$16.25 per share. The peak came in 1946 with an accumulation of \$629,000. This issue, which had aged once to below \$10 had eased back up to \$20.

Management had by this time

He changed the name to Cosden Oil Corp.

No piker, he immediately set a modernization and expansion program in motion, but by July 3, 1935 the company was back in receivership with his friend W. D. Richardson as trustee. A plan of reorganization with Cosden as president was advanced by C. Shelby Carter in New York, but Curtis Dall, former son-in-law of President Roosevelt, and other common stockholders contended "management plans are unreasonable and unwarranted." Ultimately, a modified plan was adopted March 17, 1937, and still it seemed Cosden would be back at his post as president. This did not materialize, however, and he was, in a settlement, enjoined by court order from interfering with the management of the company.

This was a bitter pill, but Cosden didn't take it lying down. He and Nelle Cosden brought suit for \$2,500,000 in 1939 against the company alleging that during a time he was severely ill he had been falsely accused of misappropriating \$137,000 of company funds and forced to sign away his company under duress.

In the end the matter was settled for a modest sum, and Cosden was forever out of the company he had established. He was not entirely through. With a small

worked itself into a healthy position and with the passing of the war, the arrearage was tackled systematically. The last of it was cleared out in 1950, and in the fiscal year of 1951 the preferred stock was retired.

While all of this was going on Cosden had been taking care of its \$550,000 tank car certificates and \$1,932,501 first mortgage bonds. There had been some new financing for major refinery improvements and substantial sums out of earnings had gone into plant modernization. By 1951, the company paid 80 cents per share on common stock, a stock that had practically no liquidating value back in 1940. Quarterly dividends have been regular since then and last year the company provided a 20 per cent stock dividend. Today that common stock is around \$24 a share on the New York Stock Exchange.

Legacy of Josh Cosden Jr., he went to Wynnewood, Okla., missed his old persuasiveness with an announced intention to junk an idle refinery, and came away with promise of a \$50,000 from local sources. With this, he went to see Jesse Jones and obtained a \$100,000 RFC loan. The refinery was reconditioned, put into operation as he pledged. It was later sold to Kerr-McGee.

When he had gone into receivership in 1935, he had to sign stack after stack of documents. His shoulders slumped and several times he paused to rest.

"You know," he said, "I don't think I can stand another one of these. The next time I'll just tell them they can have it."

His fighting spirit, easing away, had its ebb and flow. With his faithful valet, William Hudson, serving as his secretary, he opened a tiny office in Fort Worth. Then illness cut him down and as he lay almost between life and death in Coker Memorial Hospital he begged the doctor: "Make me a well man again and I'll make a million. You'll get your cut."

In November of 1940 he was discharged with a 50-50 chance to recover. He started to Palm Springs, Calif. to regain his strength, but this time the Great Receiver took over. Game Josh Cosden was dead when the train reached Wilcox, Ariz.

In extending our Congratulations to
COSDEN PETROLEUM CORPORATION . . .

. . . we wish to include an expression of gratitude and appreciation to Mr. R. L. Tollett, all the officers, and personnel for their many contributions to our community, which are represented in so many different ways. The influence of this outstanding leadership which has made Cosden one of the largest inland refineries in the United States is enjoyed by the citizens of Big Spring and Howard County in every aspect of our civic, social and business lives.

Every worthwhile civic activity is always well represented by Cosden officers and personnel who unselfishly devote their time, diligent efforts and intelligent leadership, and financial support. All this has been of inestimable benefit to the growth and prosperity of Big Spring and West Texas.

**HAMILTON
OPTOMETRIC CLINIC
and
Rx LENS LABORATORY**

106 West Third

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Cosden Brings Other Firms Into Area

Not only has Cosden Petroleum Corporation been a key industry of Big Spring for 25 years, it has played a leading role in establishment of other industries here.

A prime example is the location of Cabot Carbon Company's furnace black plant just east of Cosden's refinery. When Cabot began thinking about moving a Guyton, Okla. plant and expressed some interest in West Texas, Cosden officials and chemists got busy.

Why not locate next to us and eliminate the cost of transporting raw materials? they asked. Cosden researchers went to work and came up with a furnace black oil which was suited to Cabot's process. Cosden also provided an adequate site on siding and later shared in its supply of effluent for process water. Today Cabot has a thriving plant producing in excess of 65 million pounds of high grade black per year, an industry that has approximately 75 men on its own payroll which last year approximated \$400,000.

The presence of Cosden provided a ready market for the natural gasoline output of Reef Fields Gasoline plant, which is located in northern Howard County and which has a terminal point at Sand Springs, three miles east of Cosden.

Cosden interested Phillips Chemical Company in constructing a plant adjacent to its BTX unit to extract paraxylene, which is used in synthetic fibre manufacture, from the BTX unit's xylene output.

Cosden operates this small but pioneering unit for Phillips.

At least two trucking firms have large operations here because of Cosden's need for this type of transport. They are Art Tucker, who concentrates chiefly on New Mexico and Arizona deliveries of asphalt, although handling some specified shipments in Texas, and C. & R. Transport, which this year took over the responsibility of Texas deliveries. Texas Consolidated and the Oil Transport companies also maintain sizable fleets here to handle gasoline shipments as common carriers.

In addition, there are many other industries, shops and businesses which are largely dependent upon the needs of Cosden for their existence.

Since Cosden prefers to make deals for others to acquire raw materials and thus relieve the company of infinite details of marketing, etc., it is not impossible that other industrial developments will stem from Cosden's gregarious and progressive nature.

Into Synthetic Rubber

One product from the Cosden refinery has gone into the production of synthetic rubber.

For a brief period in 1953, Cosden delivered butylene fractions from its BTX plant to the Reconstruction Finance Corporation for use in the manufacture of synthetic rubber.

Accounting Department

Calculating and other business machines are kept humming and clicking in the accounting department at Cosden Petroleum Corporation. Some 40 workers handle the accounting chores. Shown is a scene in the general accounting section, fourth floor of the Permian Building.

48 EMPLOYEES IN DEPARTMENT

Accounting Department Uses Great Mountains Of Paper

It takes something besides wrenches, alderules, welding torches and drilling rigs to run an outfit like Cosden Petroleum Corporation.

It takes "paper work"—and lots of it.

If all the paper used in a year by Cosden could be placed in one stack, the pile would be about five times as high as the 15-story Statites Hotel.

A. V. Karcher, secretary and treasurer for the Cosden Corporation, says his staff uses about 2,000,000 pieces of paper each year. Allowing 250 sheets to the inch, that amount of paper would make a stack 12,000 inches, or 1,000 feet high.

And Karcher doesn't count the inter-office memos, "scratch" paper, etc. Cosden uses 3,000,000 pieces of stationery, statement forms, ledger sheets, purchase orders, billing forms, time sheets, IBM cards, receipts and similar papers.

All of Cosden's personnel aren't engaged in the direct, physical operation of the refinery, either.

Karcher's staff of accountants, stenographers, and other clerical workers make up nearly 10 per cent of the Cosden employe list.

There are 48 of these "pencil pushers" in the treasury and accounting department. They handle all general accounting for the company, including credit and customer's accounts, tax records, mail, the telephone switchboard and stenographic work.

The 48 workers haven't put in a year's work just because all those 3,000,000 pieces of paper happen to have been handled at least once, either. Much of the paper has to be handled four, five or six times before the accounting staff is through with it. Each voucher—and there are about 12,000 issued each year—must be handled by 10 persons.

Here are some of the papers handled in Cosden's treasury and accounting department, and the number of copies of each used per year:

Manifests 90,000; IBM cards 480,000; delivery tickets 480,000; regular checks 120,000; payroll checks 18,000; sales reports 1,800;

cash reports 1,600; stock reports 1,800; manifest copies 60,000; billing copies 60,000; crude oil checks 9,500; crude oil run tickets 30,000; invoices 95,000; time sheets 18,000; and yield reports 3,000.

Journal vouchers 12,000; cash receipts 90,000; delivery ticket checks 30,000; customer statements 180,000; customer ledger cards 60,000; customer analyses 6,000; purchase orders 160,000; IBM paper 120,000; financial statements 24,000; letters 60,000 and courtesy cards 24,000.



Congratulations

To Cosden on 25 Years of Steady Growth and Business Development

Appreciation

To Cosden for Continuous Service and Contributions Toward Building Big Spring

HOWARD COUNTY HOSPITAL FOUNDATION

We're happy to say . . .

Congratulations to COSDEN ON THIS THE OCCASION OF YOUR 25th ANNIVERSARY

We want to take this opportunity to say . . . "We're proud to play a part in helping Cosden celebrate their Silver Anniversary and wish them the best for the future!"

25 Year of Progress . . .

WENDLAND Manufacturing Company

Established 1921 — Phone 6777
401 W. 11th St. San Angelo, Texas

Corrosion One Of Major Problems Of Maintenance

The corrosive element in the sour crude oil produced in the Howard-Glasscock and Iatan-East Howard fields creates a tremendous maintenance problem for Cosden Petroleum Corporation.

For the corrosion eats away pumping equipment, rods, tubing, lines, tanks and other metal equipment.

Not only are producing wells

hindered by the corrosion, but the pipe lines also suffer, according to R. W. (Stormy) Thompson, Cosden's vice president in charge of production and pipe lines.

For many years Cosden as well as other operating firms replaced the materials ruined by corrosion. Replacement was the only way of continuing operation.

Then in 1947 the treating of the wells with anti-corrosive chemicals began. Since that time a number of inhibitors have been marketed and used by firms operating in the shallow crude fields.

Before inhibitors, pits about an eighth of an inch deep were noticeable in tanks located in either of the two fields after an eight-month period. And two-inch flow lines were completely eaten up in eight months.

Now inhibitors and special applications of plastic coatings on pipe lines keep corrosion down to a minimum. The inhibitors save Cosden Pipe Line Company untold amounts of money yearly. Equipment now does not have to be replaced near so often as before.

In addition to protecting flow lines, the plastic coatings on rods and tubing do much to prolong the life of equipment on wells. Inhibitors are dumped into the wells of the Howard-Glasscock and Iatan-East Howard fields daily to cut down destruction from corrosion.

Corrosion in the crude oil is caused by the hydrogen sulphide which is found in it. Thompson said.

Cosden has approximately 48 shallow wells in Howard County which must be treated for the corrosive element. Pipe lines and pump stations must also be cared for, especially those in the two fields mentioned.

Eight Have Been Boss At Refinery

Cosden has been served by eight superintendents of the refining plant here.

Wayne Rice was the first to fill this role when the plant was put on stream in 1929. Upon his death, he was succeeded by the late Stanley Cosden, eldest son of the founder. In turn, Cosden was succeeded by the late E. J. Mary.

At the time the thermal crackers were installed in 1934, J. W. Coast, himself holder of several patents in the field, was engaged by Jack Cosden Sr. to direct affairs of the refinery.

When Coast left, E. W. Potter became superintendent until he was succeeded in 1940 by J. L. LeBlou. Ernie Richardson served as acting superintendent for a time and when George Grimes came here following closing of the Graham refinery, it gave Richardson a chance to retire to his assistant superintendent's spot. Grimes has continued since then as superintendent of the steadily enlarging operations.

Pioneer Work In Taking Mercaptans

Cosden was a "pioneer" in the extraction of methyl mercaptans from gasoline.

Mercaptans are "chemical raw materials" and would give gasoline a bad odor if they weren't extracted.

In 1932, Cosden supplied 99 per cent of the methyl mercaptans that were used in the production of methionine, a feed supplement-biotic. Many other companies also supply the material now, however.

Need Demonstrated For Exploration

The experience of Cosden during the depression of the 1930's points up the necessity for continuous exploration for new sources of oil.

When the depression struck, Cosden was operating from 30 to 40 drilling rigs constantly. The company was producing 12,000 to 14,000 barrels of oil per day from its wells.

During the period from 1931 to 1936, Cosden's exploration and drilling activities ceased entirely. And although the company continued to produce oil from the wells it had drilled prior to 1931, daily oil production was down to 400 barrels by 1936.

Congratulations

On Your

25th

"Silver"

Anniversary



We are proud to have the association of such a progressive organization in our area as Cosden Petroleum Corporation and hope to extend business associations and friendship in the future.

QUALITY

BODY SHOP

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Dial 4-5741



Sincere Good Wishes

To A
GOOD FRIEND
GOOD NEIGHBOR
GOOD BUSINESS ASSOCIATE

It is wonderful to have witnessed the steady growth of a progressive member of the Oil Industry such as Cosden Petroleum Corporation.

It is gratifying to see the great good this company has done for West Texas.

DIAMOND-M INDUSTRIES

Snyder, Texas

Miller's Connection Goes Back 26 Years

Marvin Miller, senior vice president of Cosden Petroleum Corporation, can lay claim to a Cosden connection that goes back nearly two score years.

That was on his father's account, but he can, on his own, lay claim to a continuous connection of 26 years. In tenure, he is second only to Mrs. Alma Golnick, who is in Miller's division now as head of the land and lease department.

If anyone was ever born into the oil business, Marvin Miller fits into that category. Almost from the time of his birth in Muncie, Ind., on June 10, 1908, he was on the move with his father, O. F. Miller, through the oil fields of Illinois, Oklahoma, Kansas and Texas. One of the elder Miller's positions had been that of production superintendent for the old Cosden Oil & Gas Company at Okmulgee, Okla., Josh Cosden's first great empire, in 1917.



MARVIN MILLER

Upon young Miller's graduation from Abilene, Texas High School in 1923, his father put him to work as a roustabout in Eastland County for the States Oil Corporation. During the next two years he took courses in accounting, electrical engineering, petroleum engineering. In 1925 he joined the production department of the Milham (now Mills-Jake Hammond) Corporation of Texas at Vernon and eventually became material and equipment supervisor.

This was his position in 1928 when Cosden Oil Company acquired properties of Milham. The crack Milham baseball team vanished and so did about everyone else, but Miller was one of the few that Cosden retained. After a year he was transferred to Cosden's Oklahoma properties and then to headquarters in Fort Worth as chief clerk in the production department.

To this day he remembers how he was required to make a daily report to Josh Cosden.

"That office was a mile long. I would enter the door with my reports, march with fear and trembling up to Mr. Cosden's desk where he sat listening in one phone, talking into another and puffing a cigarette all the while. I would lay down the report and point to significant developments and maybe to something that looked good. Mr. Cosden would arch his eyebrows and purse his lips. I would march the length of the room to the door and lay my hand on the knob when it seemed Mr. Cosden would storm out: 'Miller! How come it takes four days of fishing on this well?'"

Things were riding high, for Cosden's stock was finding a good market on the curb for \$130 a share. Then came the crash. In 1931 he

was sent to Okeman, Okla., as assistant superintendent of production with the encouragement that "this will all be over in six months and you'll be back." The adjustment turned out to be a historic depression so Miller and his young bride, whom he had just acquired, stayed on in Oklahoma. By 1935 he was made general superintendent of Cosden's entire production department in Oklahoma.

Four miles east of Graham, Cosden had developed the Sewell field in 1939 and there was no outlet for the crude. The company decided to construct a refinery at Graham and for a year and a half Miller was busy opening up sales territory in North Texas for distribution of products. His assignment was broadened in 1940 to include management of drilling, producing, refining and marketing of all of Cosden's North Texas properties. The following year he was elected director and vice president of the company.

Crude supply was dwindling at the Graham refinery and R. L. Tollett, president, needed a good experienced man to shape up distribution. Miller took over this role as well as serving as assistant to the general manager and president. He coordinated sales and transportation until 1952.

Two years ago when Cosden set out to mend its production fences, which had fallen into sad repair in the days following reorganization and during war years, Miller was assigned the task of breathing life into the new land and exploration division. Besides strengthening existing components, he added new parts such as a geophysical department and branch offices in Den-

ver, Colo., Midland and Corpus Christi.

He was married to Pauline Smith in Fort Worth in December 1931 and he and Mrs. Miller have two daughters, Marilyn and Carolyn. He is an elder in the First Presbyterian Church and a member of its board of religious education. Miller served repeatedly as president of the Big Spring Independent School District Board of Trustees during the period when the district was in financial straits and repaying excess collected when a tax increase was voided. He stayed on until April 1954 when he retired after seeing the district get on its feet, catch up on a long overdue building program. Once, when the picture had looked hopeless, he had told his wife that "I don't know how we're going to do it, but I'm going to stay with this (school) job until we get a new high school and children here have as good a chance as others."

He is a member of the Lions Club; has served as a director in the Big Spring Chamber of Commerce (he did first spade work toward getting the Veterans Administration hospital in Big Spring); is a past president of the Big Spring Country Club; served as West Texas chairman of the Oil Industry Information Committee; and has been regional director for industrial safety of the Texas Safety Association. He is a director of the West Central Texas Oil & Gas Association and the Independent Petroleum Association, and is a member of the American Petroleum Institute and the Texas Mid-Continent Oil and Gas Association.

Oldest Lease, Dating To 1927, Has 21 Wells

The late Joshua S. Cosden, founder of Cosden Petroleum Corporation, got into the Howard County "oil play" in a hurry and in a big way when he came here in 1928.

Cosden started by paying the late Mrs. Dora Roberts \$1,000 per acre for a 320-acre lease in the Howard-Glasscock field. This transaction occurred on April 6, 1928.

To this investment Cosden quickly added \$118,000 for 1,327 acres on the Stewart Ranch. Then there was the reported, but unconfirmed, payment of \$1,200,000 for another 180 acres.

By mid-1928, Cosden's investment in Howard County was estimated at \$2,000,000. A few weeks later, he paid \$400,000 for another 80-acre lease.

From this point, it was just a few strides into the pipe line and refining industries.

Johnson Began As Salesman, Is Now Sales Coordinator

A salesman who became coordinator of sales for the Cosden Petroleum Corporation is Richard M. (Dick) Johnson, who has put in nearly 13 years with the company.

Johnson's job involves the coordination of the various sales divisions—with each other and with production at the Big Spring refinery. The sale of branded products (through jobbers), tank car shipments, including fuel oils into the Midwest during the winter season, asphalt (45 varieties) and chemical products all come under his supervision.

In addition, Johnson supervises advertising and the credit department for Cosden. The truck transportation department, and the purchase of all automotive equipment, are included in his responsibilities.

The sales coordinator started to work for Cosden in October, 1941, as a salesman. He first lived in Big Spring, but was transferred to Albuquerque, N.M., to open some new accounts for the company and to handle Cosden's obligations in connection with a government contract during the early days of World War II.

Johnson entered the service himself in June of 1943, and was discharged in October of 1945.

He returned to work for Cosden as a salesman and in 1948 was made manager of the credit department. He served in that capacity until Sept. 1, 1952, when he became sales coordinator.

Born Mar. 2, 1915, in Brownwood, Johnson attended public schools there and enrolled in Texas Military Institute in San Antonio. He put in one year at Howard Payne College, Brownwood. His parents,



RICHARD M. JOHNSON

the late Mr. and Mrs. E. V. Johnson, operated a ranch near Brownwood and the family alternated between ranch and city homes during the time Dick was in school.

Johnson married Elbertine Corbin, daughter of Dr. and Mrs. W. E. Corbin of Brownwood, on June 20, 1937. He operated an automobile agency in Sonora from 1937 until 1941, when he disposed of the business and subsequently joined Cosden.

In his capacity as coordinator of sales for the company, Johnson is a member of the Southwest Petroleum Credit Association, the American Petroleum Credit Association,

the American Petroleum Institute, Oil Industry Information Committee, and is area chairman for the Texas Motor Fuel Committee. He serves as a director of the Permian Basin Oil Show, and also is a director of the Henry Ford Memorial Highway Association.

Vice President Got Start As Roustabout

You might say that Marvin M. Miller, Cosden vice president, knows the oil business from the top to the bottom.

Miller started at the bottom—as a roustabout—in 1924. Since that time he has held positions in about every phase of the industry.

The Cosden vice president worked as field scout and field purchasing agent for the Milham Corporation back in the twenties. When Josh Cosden purchased the Milham properties, Miller joined with Cosden and subsequently became chief clerk, production superintendent, manager of production, sales manager and exploration manager. He now is in charge of exploration for the company.

Big Spring (Texas) Herald, Sun., July 18, 1954

HAPPY BIRTHDAY

Cosden Petroleum Corp.

We have enjoyed our associations with you . . . May they continue for many, many years.

SNACK BAR

PERMIAN BUILDING

TWINS CAFE

206 W. 3rd

LEONARD and LONNIE COKER

To Mr. R. L. Tollett
And All Employees
Of
Cosden Petroleum Corp.

We Offer Our Very
BEST WISHES

You are a real asset
to our community . . .

CRAWFORD HOTEL

CONGRATULATIONS

To
Cosden Petroleum Corporation
On Your
SILVER ANNIVERSARY

We of Mathis Studio pledge our most conscientious efforts, as always, when you have need of our photographic services or supplies.

Mathis Studio

311 RUNNELS DIAL 4-2891

Birthday Candle

Today marks the twenty-fifth anniversary of the Cosden Petroleum Corporation.

Ethyl Corporation wishes to congratulate Cosden on its anniversary. And we know that for many years to come its forward-looking management will cause the people of Big Spring to point with pride to the East—to the Cosden refinery.

ETHYL CORPORATION

NEW YORK 17, NEW YORK



Subsurface Study

David M. Hopkins, subsurface geologist for Cosden, studies cuttings from deep in the earth. Ultra violet light shining on the material reveals any oil stains which the sample might contain. Cosden's geology laboratory is located on the third floor of the Permian Building.

Transport Companies Do Big Business With Cosden Hauls

Truck hauling is big business. The fact that Cosden spends over a million and a half dollars a year having asphalt and road oils hauled by other companies substantiates this statement. The two largest firms having con-

tracts with Cosden are Art Tucker and C&R Transport. Tucker maintains 70 trucks while C. & R. has 35 here.

Common carriers also haul out of the Big Spring refinery. Among these firms are Oil Transport, Tex-



Asphalt Transports

Some of the more than 100 trucks which carry Cosden products out of Big Spring are these vehicles on the Art Tucker parking lot, just east of the city on Highway 80. Tucker operates 70 trucks and C&R Transport has 35 trucks engaged in hauling asphalt and road oil for Cosden.

TRAFFIC CHIEF Orme Has Lifelong Railroad Interests

It was only natural that Douglas L. Orme should become associated with the traffic department at Cosden, the branch of the company that is charged with the responsibility for shipment of products by rail.

Orme was born into a railroad family at Strawn, Oct. 17, 1906. His grandfather was freight agent for the T&P. His uncles were operators, agents and train dispatchers. Consequently, most of Orme's spare time as a youth was spent at the local depot. His early assignments—for pay—included sweeping floors, building fires, trucking freight and looking after mail and express shipments.

After winning the state Interscholastic League championship in debate, Orme graduated from Strawn High School as valedictorian in 1923. He attended Texas Christian University the following year, receiving a scholarship on the basis of his grades.

But Orme couldn't stay away from the railroad. In 1924 he accepted a job as utility clerk with the T&P at Abilene. In the next five years, he worked every job in the office, including that of agent.

Orme's attention was attracted to Big Spring and Cosden in 1929 when, after completing a correspondence course in traffic and management, he noticed a fleet of several hundred new tank cars consigned to Cosden.

The young railroad man applied for work in Cosden's traffic department and became a clerk there on May 1, 1929. By Aug. 1, 1929 he had been promoted to chief rate clerk and on May 12, 1931 he was admitted to the Bar of Practitioners before the Interstate Commerce Commission.

His appointment as traffic manager for Cosden became effective Feb. 1, 1936 and for the next several years his efforts were devoted chiefly to the preparation and presentation of several important rate cases before the ICC, and to the operation and maintenance of Cosden's 793 tank cars. Early in World War II he participated in the negotiation of special rates for the movement of petroleum products in tank cars to the east coast.

During the war Orme also served on the Petroleum Administration for War and the office of Defense Transportation committees. He was president of the Petroleum Shippers Association for three years.

One of his most interesting experiences has been the handling of the Texas trainload rate on gasoline, which resulted in the "pipeline on wheels" arrangement that became effective in December, 1946. Since that time, Cosden has shipped 1,383 trainloads of petroleum products under the special volume rates.

Orme became vice president in charge of traffic on Nov. 17, 1947. In 1948 he became the founder of the American Society for Traffic and Transportation. In 1951 he was appointed to the National Shippers Advisory Committee to the Administrator for the Defense Transport Administration. At present he is a member of the Mid-Continent Oil



DOUGLAS ORME

Traffic Committee, the Shipper Owner Tank Car Association, and the National Industrial Traffic League. His term as general chairman for the Southwest Shippers Advisory Board expired last May.

He has served as president of the Big Spring Chamber of Commerce, as president and district governor for American Business Clubs, and is now a director for the West Texas Chamber of Commerce, chairman of the Howard - Glasscock Chapter of Red Cross, and president of the United Fund. Since 1949 he has served as president of the Big Spring Hunting & Fishing Club, a Cosden employe group. He is a member of the First Christian Church and holds membership in several Masonic organizations. Orme and Miss Mildred Frazer of Fort Worth were married on July 1, 1933. She also comes from a railroad family. Her father, George W. Frazer, was a T&P trainman on the run from Fort Worth to Big Spring and was well known here.

Mr. and Mrs. Orme reside at 1600 Park Hill Drive in Big Spring.

Second Plant Once Operated At Graham

As recently as seven years ago, Cosden Petroleum Corporation was operating two refineries.

In addition to the main plant at Big Spring, the company had erected one at Graham in 1939 as an outlet to crude produced in the Sewell field east of that city.

The refinery was rated at 2,500 barrels as a topping unit for sweet crude. At the outset, the operation was a losing proposition. Brought in at first to develop sales outlets, Marvin Miller was put in charge of refining also. He called in George Grimes, superintendent and they agreed that the thing was badly overstaffed. Deadwood was pruned and operations streamlined. With half the personnel carried previously, the output was increased. Instead of losing money, the plant began to show a profit.

Gasoline, kerosene and Diesel fuels were marketed through a system of North Texas Cosden jobbers, and gas oil and fuel oil went to Fort Worth refinery markets.

By 1947 production in the Sewell Field had dwindled to 500 barrels per day and the operation of the refinery was becoming marginal. It was closed and the property sold for salvage. The Texas Company bought the gathering system.

Entomologists say that three-quarters of the known kinds of animals are insects.

1929 *Best Wishes!*



1954
We take pleasure in extending heartiest best wishes to Cosden and their employees on their 25th Anniversary . . . and with all Big Spring, we are happy that you are a part of us. We take a great deal of pride in your growth and prosperity down through the years.

J&K shoe store

Congratulations . . .
... and Best Wishes
To
COSDEN PETROLEUM CORP.
And Your Employees
On Your **25th** Birthday
Charles Harwell-Lula Ashley
TEXACO DISTRIBUTORS
101 Nolan Dial 4-6131

Precautions Are Taken Against 'Blowout' Well

Problems involved in "bringing in" a well are not near so numerous as they used to be, said R. W. Thompson, Cosden Petroleum Corporation vice president in charge of production.

Blow outs used to be numerous in West Texas as in other parts of the world, and occasionally a few of them are still seen when operators attempt to complete an oil well.

But Cosden has never had a blow out, Thompson said. "We make sure that our drillers have the good judgment not to take chances and let one of these wells get out of hand," he stated. "We try to maintain safety in everything we do, particularly on these wells that have pressure enough to flow."

Thompson explained that wells which do not have pressure are seldom dangerous. There is no chance for a blow out on these projects. "The main problem we have is to know where to drill the well," he said. "If we don't get over a producing formation, we don't get a well."

The vice president went on to explain that once a drilling operation begins, the main problem is in having the right kind of equipment. Then the geological problem of being able to tell when the bit is tearing through an oil producing zone must also be considered, he said.

Drillers through experience usually can tell when an oil zone is reached. Then testing the samples that flow up with the drilling mud is more definite proof. Cosden has never had any particular problem in bringing in a well, according to Thompson. But every well is completed differently and there has been much hard work involved in these completions.

A number of times water is encountered in a pay formation, and it takes a great deal of time to cut off the water. Sometimes this is done by cementing off the hole or cementing behind the casing up the hole. A sidetrack hole is required at times.

When a sidetrack hole is necessary, the driller must branch off from his main drilling tunnel into another track—aimed at the same pay.

A cubic mile of ocean water contains gold worth \$3 million dollars, but cost of extraction would be greater than the worth of the gold.

Best Wishes!



COSDEN

ON YOUR
25th Anniversary

Your influence in the oil industry has been favorably felt by everyone in West Texas . . . As you have grown during the past 25 years, so has Big Spring . . .

We Pay Honest Tribute
To The
Cosden Petroleum Corporation
It Is A Pleasure To Work With Cosden Petroleum Corporation

W. D. CALDWELL

Oil Field Work
Bulldozers
Ditching
Snyder Highway
Maintenance
Draglines
Backhoes
DIAL 4-8062
Big Spring, Texas

DIRT CONTRACTOR



Maps, Maps, Maps...

Kimball Guthrie, Cosden oil scout, studies one of the hundreds of maps maintained in the map room of the firm's geology department. The department has ownership maps of all the land in West Texas, and the maps are kept "up to the minute." In addition to ownership, the maps show location of leases, oil wells, abandoned holes, and active rigs.

Maps, Filings, Well Logs All Add To Big Stack Of Records

The average layman could get lost in the multiplicity of records which must be kept in the production department of Cosden Petroleum Corporation.

In addition to the Railroad Commission filings, which require time services of one and a half employees, records can be classified under the broad headings of maps and surveys, drilling, cost statistics, production, and reserves. Up to the minute maps concerning lease holdings and Cosden drilling projects are maintained, as well as survey data in prospective exploration areas. Geophysical and geological information must be kept accurate at all times.

Of extreme importance is the daily log on wells being drilled, according to R. W. Thompson, Cosden vice president in charge of production. All formations which are penetrated—complete with their depths—are logged.

When a well is being drilled, Cosden operators also must record the number of pipe feet used in the hole—along with size and depth set. This along with the number of days drilling time and the number of bits used are permanently filed in the exploration office.

Any shows of oil which might be encountered must also be noted for future reference. Lengths of tests taken and results are also a matter of permanent record.

And if a well is completed, such items as potential flow in 24 hours, gas-oil ratio, gravity, bottom hole pressure, depth, and pay top must

be noted. If it is plugged, the depth must also be tabulated.

All these figures can be compared over a period of time to learn pretty well what formations are under the surface in a given locality, Thompson explained.

It is also a policy of the Cosden exploration department to keep cost statements on each well. This

includes pay for employees and material costs as well as incidental well services costs.

Once a well is finished or abandoned, figures as to exact cost of drilling operations are available. Cost of such surface equipment as tanks and flow lines can also be obtained at a moment's notice.

Provided a well produces oil, records are necessary concerning the

Employees Encouraged To Aid In Civic Work

Cosden encourages employee participation in community affairs by two notable methods.

First, the company permits workers to take time off from their jobs to take part in community projects, such as the United Fund, Red Cross, Chamber of Commerce and other activities.

In addition, Cosden pays the dues of 57 employees who are members of various service clubs and other civic organizations.

Cosden officials and personnel also have held—and hold—important positions in public life.

R. W. (Stormy) Thompson, vice president of the company, is currently serving as a member of the school board for the Big Spring Independent School District. Cosden Vice President Marvin M. Miller is immediate past president of the board and Raymond L. Tollett, Cosden president, served several years as member and vice president of the school board.

J. A. Coffey, Cosden's insurance and tax manager, is a member of the board for Howard County Junior College. He also served as chairman of the board of deacons for the First Baptist Church for four years and is still a member.

Jack Y. Smith, Cosden personnel manager, served as a city commissioner for three terms. Alfred Goodson, an electrician at the Cosden refinery, now is serving as a city commissioner.

Doug Orme, another Cosden vice president, is chairman of the Howard-Glasscock Chapter of American Red Cross. Orme also is a director for the West Texas Chamber of Commerce, president of the United Fund of Big Spring and Howard County, and a past president of the Big Spring Chamber of Commerce.

Past presidents of the Big Spring Country Club who are members of the Cosden staff are Thompson, Miller, Smith and Franklin (Speedy) Nugent.

Cosden people also fill various offices of leadership in their

churches. Tollett is a member of the vestry at St. Mary's Episcopal Church and has served as lay reader.

Thompson is chairman of the board of stewards at the First Methodist Church. A. V. Karcher, Cosden secretary-treasurer, is chairman of the board for the First Christian Church. Other Cosden men on the board are Ray Shaw and H. C. Hudgins.

Miller is an elder in the First Presbyterian Church.

Clubs and service organizations for which Cosden pays the dues for its employe memberships are Desk and Derrick, 32; Business and Professional Women's Club, 4; American Business Club, 12; Kiwanis, 5; Lions, 22; Forsan Service Club, 17; and Rotary Club, 5.

Norfit Petroleum Only Purchase Of Another Firm

With one minor exception, Cosden Petroleum Corporation has grown entirely out of its own root stock.

The only instance in which Cosden absorbed a concern which it did not start, either as an auxiliary or subsidiary, was the small Norfit Petroleum Corp. This unit had become inactive and in November of 1952, Cosden bought the assets of Norfit from Curtis E. Norman, Brady, who as a major stockholder had come into possession of them. The deal, relatively small as oil transactions go, involved \$186,000. In return Cosden gained casing valued at \$75,000, at a time when tubular goods were difficult to secure. Also included were 11 shallow wells in the Durham pool of Sterling County with a 65-barrel per day potential, plus some scattered leases. As a result, Cosden did some exploration in Sterling County and discovered a small pool.

Refining Plant Attracts Many Groups Of Tourists

Cosden's refinery is a West Texas showplace for the oil industry, and a number of people tour the refinery facilities each year.

Most prominent among the visitors are the school children. Industrial tours are also made through the plant periodically, and scheduled refinery visits are made by airmen from nearby Webb Air Force Base.

Recently several chapters of the nationwide Desk and Derrick Club have visited the refinery. Members of the club are women working for oil firms or related businesses. Chapters from Austin, Midland and Odessa have been guided through the refinery.

School children from a hundred mile radius of Big Spring have made class trips to Big Spring in order to inspect Cosden's plant. For some reason most seem to be in the 6th grade, according to Jack Y. Smith, personnel manager who usually directs the tours.

ress Week, students from Howard County Junior College and the Big Spring High School are guided about the refinery grounds. It is also during this period that "open house" is observed by refinery officials.

When Cosden opened its cat crack and BTX units a number of tours were made by industrial groups. And people traveling through the country are never turned down when they ask to be shown through the plant. Last year, the Texas section of the American Society of Civil Engineers included Cosden in its official tour.

Production Takes In Bee County Wells

The Steinhilber field of Bee County has two oil wells producing 115 barrels of oil daily which are partially owned by Cosden Petroleum Corporation.

Physical Tests Required Of All Employe Prospects

Not everyone who goes to work for Cosden must undergo checks on physical condition and aptitude.

Those associated with the manufacturing division in capacities which require manual labor are subjected to a thorough physical before they are engaged. The nature of this examination may have a bearing upon its extent of emphasis. All executives who have passed the age of 40 are required to have annual physical check-ups. Department heads and supervisors take physicals.

Aptitude tests are open to all employees, although they are not compulsory. Though this means the management has discovered in advance that certain placements would be ill advised for certain personalities. These are given by an expert psychologist and the results are discussed personally by President R. L. Tollett with the employe.

Railroad Commission allowable and the actual production rate. The amount of oil produced each day is listed for each well.

Thompson said that the bottom hole pressure of all flowing wells must be constantly checked. When pressures fall too low, the wells must be pumped and in some instances swabbed.

Because the Railroad Commission

Big Spring (Texas) Herald, Sun., July 18, 1954

requires it and because it is sound business practice, Cosden also keeps records on reserve estimates. This is a guess—which is based on a number of known factors—concerning the amount of crude oil in the ground which can be produced.

Running records must be kept comparing production with the reserves, and the reserve figure must be readjusted at regular intervals. This way Cosden officials know at any given time just about how much each well and each lease can produce during its economic life.



BEST WISHES

COSDEN

PETROLEUM CORPORATION

On Your Silver Anniversary

25 Years of Progress

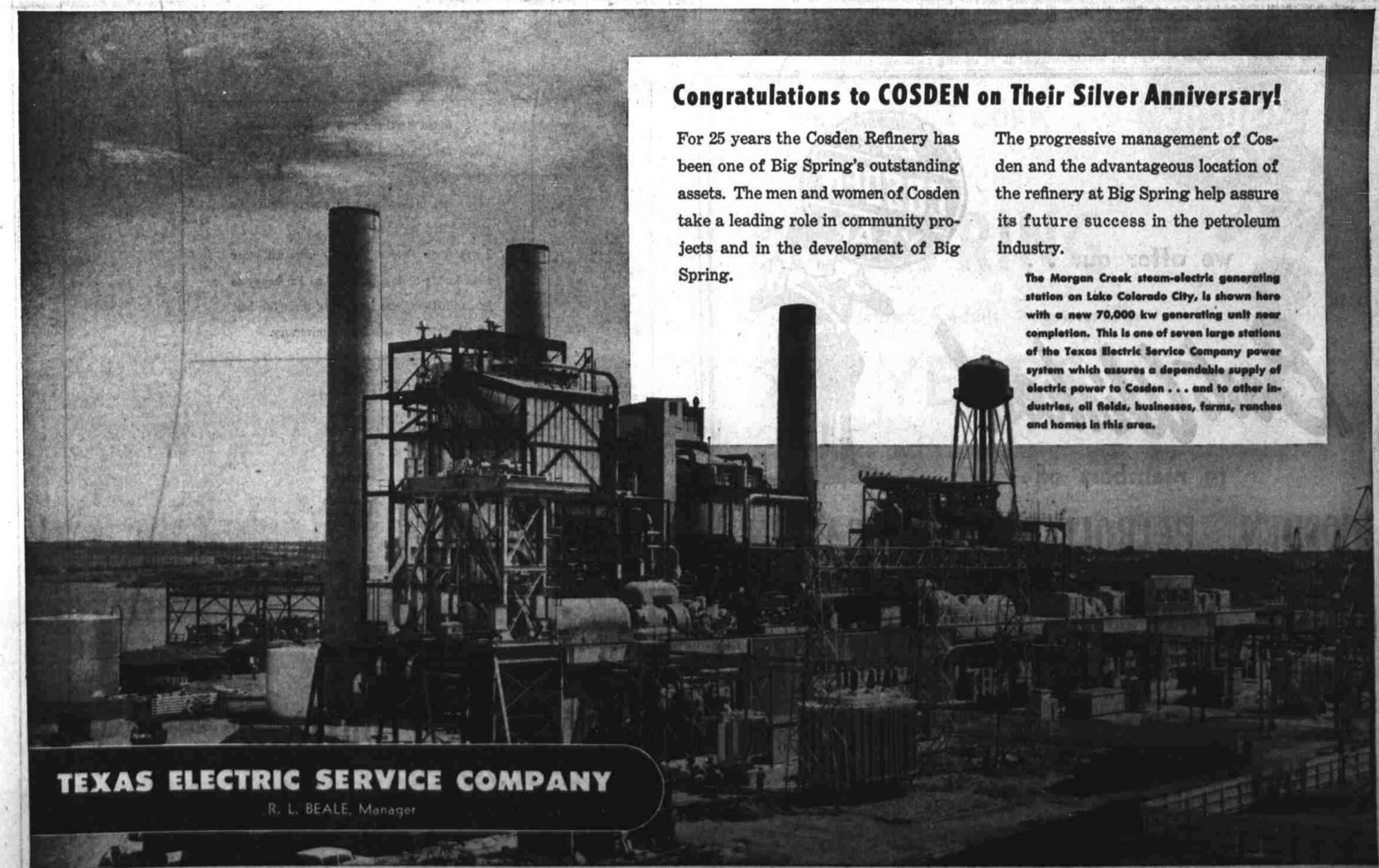
COSDEN PETROLEUM CORPORATION

BIG SPRING

We are happy to have the close association with you and your friends... we've enjoyed having so many of you as customers during these years.




202-204 SCURRY BIG SPRING



Congratulations to COSDEN on Their Silver Anniversary!

For 25 years the Cosden Refinery has been one of Big Spring's outstanding assets. The men and women of Cosden take a leading role in community projects and in the development of Big Spring.

The progressive management of Cosden and the advantageous location of the refinery at Big Spring help assure its future success in the petroleum industry.

The Morgan Creek steam-electric generating station on Lake Colorado City, is shown here with a new 70,000 kw generating unit near completion. This is one of seven large stations of the Texas Electric Service Company power system which assures a dependable supply of electric power to Cosden... and to other industries, oil fields, businesses, farms, ranches and homes in this area.

TEXAS ELECTRIC SERVICE COMPANY

R. L. BEALE, Manager

Research Work Has Interested Krausse

A mutuality of interests with Raymond L. Tollett brought Dan Krausse to Big Spring and an association with the Cosden Petroleum Corporation.

Krausse was a frequent visitor to Big Spring in 1947-48, coming here to see his fiancée, Miss Barbara McEwen.

Having graduated as a chemical engineer from the University of Texas, he was interested in activities at the Cosden refinery here. He became acquainted with Tollett, and found that the Cosden president was interested in the work Krausse was performing.

After several meetings of the two, both in Big Spring and in Chicago where Krausse was engaged in research and development work for Sinclair Refining Company, the young engineer joined the Cosden staff.

Starting as control engineer, he has advanced to the position of assistant to the president, as coordinator of processing and cost control.

Dan M. Krausse was born in Houston on Nov. 22, 1925. He attended public schools in Houston until 1939 when he enrolled in Schreiner Institute at Kerrville.

Completing the prep school in 1941, he enrolled in the College of Engineering at the University of Texas, becoming at the same time a member of the Naval ROTC.

At the age of 19, Krausse was commissioned an ensign in the USNR. He started a two-year tour of active duty in 1944, during which he served 20 months as gunnery officer on the light cruiser USN Wilkes-Barre in the western Pacific area around Japan and North China.

He returned to the University of Texas in 1946 and received his bachelor of science degree in chemical engineering early in 1947.

Krausse then joined the Research and Development Department of Sinclair Refining Company at East Chicago, Ind. While with Sinclair,



DAN KRAUSSE

was wrong? Tollett gave his assurances. Karcher said he would take the job, no mention of salary.

Another big case involved the New York Title & Mortgage Company for mail fraud, and in this he was on the stand once for an eight-day stretch. As key witness, his testimony was attacked bitterly.

Convictions resulted and on the appeal the court observed, regarding Karcher, that "reliability is not questioned . . . witnesses checked (his) figures and found no disparity, rather indeed that Karcher had been very fair." The appeal was knocked dead.

One unexpected dividend of the case was a junior accountant, R. L. Tollett, assigned to Karcher. Growing weary of being called upon for emergency work—he would jump out at midnight, strap on his .38 to work a plant or sit on a tap hours—Karcher left the FBI. One Sunday at 6 p.m. Tollett telephoned Karcher, who had scarcely heard of Cosden.

"How would you like to go to work with an oil company?" Karcher had two questions: was he suited for the job and the job for him, and had Tollett ever been asked to do anything he thought

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"I thought you would," said Tollett. "I already arranged a conference with two of our directors and you for 8 p.m." Karcher got home at about 1 a.m. and at 8 a.m. was at work with Cosden.

Fishing is his hobby. He did play golf but illness caused him to shelve his clubs. He has done considerable civic work, being a past president of the Rotary Club, former chairman of the Howard-Glasscock Red Cross chapter; former director of the Chamber of Commerce. He is a member of the Texas Society of Certified Public Accountants, of the Society of Former FBI Agents, of the financial and accounting committee of the American Petroleum Institute, and is treasurer of the Texas Motor Fuel tax committee.

His major emphasis is his church (First Christian). He has been a member of the board almost since coming here in 1940 and for the past year has been chairman. He has taught a Sunday School class all the time and devotes one or two evenings a week to lesson preparation.

He is a member of Tau Beta Pi, Phi Eta Sigma and Delta Tau Delta fraternities.

as worked on such projects as the extraction of oil from the Colorado oil shales, a process which has become practicable commercially, and on catalytic reforming, an operation now employed at the Cosden refinery here.

Prior to leaving Sinclair, Krausse became administrative assistant to the manager of the Research and Development Department.

In March of 1948, Dan and Miss McEwen were married. Krausse joined Cosden in November of 1949. He became assistant to the president of the company in 1952, a position in which his technical background comes to the fore in cost control and process engineering.

Krausse also has been extremely active in civic affairs since coming to Big Spring. He currently is a director and member of the executive committee for the Chamber of Commerce. He serves as district commissioner for Boy Scouts, is a member of the board of trustees for the United Fund, and is vice president of the Big Spring Rotary Club.

In the past, he has been president of the Knife and Fork Club and president of the Toastmasters Club. He was co-chairman of the 1952 Community Chest campaign and was employ division chairman for the United Fund drive last year.

Last spring Krausse was named "Man of the Year" by Big Spring Jaycees.

He is a member of Tau Beta Pi, Phi Eta Sigma and Delta Tau Delta fraternities.

Congratulations
To
COSDEN
PETROLEUM CORPORATION
On Its
25th ANNIVERSARY
R. L. COOK - JACK COOK
J. W. PURSER
PERMIAN BUILDING

Cosden's Fire Chief-With His Truck

Cosden has its own fire chief in the person of Bill Phillips, refinery safety officer. He is shown above with his "fire truck." Notice the fire extinguishers on the running board, front fender and truck bed. The truck is rushed to the scene of refinery fires whenever they occur. Water, steam and dry chemicals are available for fighting the oil fires. Phillips' "fire department" is made up entirely of volunteers, people on all shifts having been trained for the work. Phillips heads up all safety work on the refinery grounds and has a three-man employ safety committee which meets with him to make recommendations.

Took Job In Hurry; He's Happy With It

"I wouldn't work for anyone else."

That's how A. V. Karcher, secretary-treasurer, feels about Cosden Petroleum Corporation. Before he made a wholly unexpected connection with Cosden almost in a twinkling, he had served as accountant, as a FBI agent, and member of a large private accounting house.

Abram V. Karcher was born on Nov. 24, 1896 in Harris County, Texas, and was reared at Lawton, Okla. where he completed high school. Abe Karcher had his plans laid to enter the University of Oklahoma in September of 1917 when Uncle Sam took priority on his services. He found himself as one of the first half dozen men to report to Fort Benning, Ga. when the infantry school was opened in World War I. Assigned to the experimental and statistical division as a field clerk, he found that he couldn't get loose, war or no war. He was doing a tedious and difficult work and somehow his applications for separation got lost.

"I must have been the last man to get out of the Army in World War I," he complained. It was January 1920 before a friendly colonel arranged his discharge.

He had married Mary Marie Brown on April 20, 1918 and it dawned on him that here he was a married man and therefore school seemed out of reach. One day his eyes fell on an advertisement: "Be an accountant." So he enrolled in a correspondence school in accounting and by the time he achieved civilian status, he had just about completed the course. It was easy to step into a job with



A. V. KARCHER

the Audit Company of So. Atlanta, Ga.

By November 1920 he had gone with Alonzo Richardson & Co., CPAs of Atlanta. Two years later, yearning to be back in Oklahoma, he joined Wolf and Company, CPAs in Oklahoma City. In March 1927 he went with the Oklahoma Northern Utilities Co. as chief accountant at Ponca City.

From March 1929 to 1931 he practiced as a CPA in Oklahoma City on his own, going in October to be with the FBI. He left this service in October 1937 to become senior accountant with Peat, Marwick, Mitchell and Co. in Dallas. His Cosden connection dates back to April 15, 1940.

From the start his experiences

seem to set the stage for others. Banks had failed with such rapidity following the unlamented 1921 depression that bank examiners couldn't keep up. His firm was drafted to make the audits and as a result 38 men were jailed and four killed themselves. The first shortage he uncovered resulted in a suicide.

"This made me nervous to this day," he said. It also gave him some valuable banking background. His utilities experience was a natural when he went with the FBI. Among the cases he drew was that of the Associated Gas & Electric, the largest utilities holding combine in existence. He labored two years to find practically all counts had been outlawed by time, but work of the FBI and others did result eventually in Howard Hobson going to the penitentiary for tax evasion.

Another big case involved the New York Title & Mortgage Company for mail fraud, and in this he was on the stand once for an eight-day stretch. As key witness, his testimony was attacked bitterly.

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we offer our . . .

Best Wishes!

to members of

COSDEN PETROLEUM CORPORATION

On This Your 25th Anniversary

We're happy to wish the best for all of you, members of the entire Cosden organization. You are to be proud of your record in growth and progress and the great efforts put forward by you and your company helping this area of West Texas to go forward. Again . . . Congratulations on this a great year for Cosden and associates.

**BIG SPRING
LOCKER COMPANY**

100 Gollard St.

Dial 4-8011

**BIG SPRING
WHOLE MEAT CO.**

100 Gollard

Dial 4-6722

Owned and Operated By Jim Kinsey and Marvin Sewell



Cosden has been mighty good to me, in many ways through the years.

And Cosden has been mighty good for our town, too, in helping with every worthwhile project that has come along.

I appreciate Cosden, and I'm sure all other folks in Big Spring do, too. And I'm happy to join with the others in wishing them the best of everything, on this 25th Anniversary.

OBIE BRISTOW

Big Operations Call For Clear Organization Plan

It is elemental that a business employing 624 people and doing \$45 million of business annually just doesn't run itself.

There may have been a time when operations of Cosden Petroleum Corporation were of a scope and nature that they might have been directed in nearly every instance by one individual. But as Cosden has grown, so has its organization. Therefore, it is no paradox at all that today with its largest force and volume, it also has its most closely meshed machine for operations.

This has been accomplished through a well-defined plan of organization. All authority stems, of course, from the stockholders, to whom the board of directors is responsible. The board charges the

president with the responsibility of efficient management of the company.

The president, the key individual of the vast set-up, is general manager. Obviously, there are limits upon his time and physical capacities to direct specific affairs. So there are a number of executives upon whom he leans for help in operating the company. One is the senior vice president, who in turn directs all activities associated with drilling and exploration—the land and lease division orders, geological, geophysical, scouting departments and three branch offices. Another vice president is in charge of pipelines and production, and in turn directs the engineering required in this field, the operations of the pipelines, the produc-

tion of company leases, the delivery of oil to the plant.

Still another vice president is in charge of the complexities of rail traffic, of directing shipments, staying abreast of rate developments, of seeking new rate arrangements, of advising with all departments in reference to all matters of transport.

The secretary-treasurer heads up all the fiscal force with the almost endless ramifications of accountants, auditors, accounts receivable and payable departments, credits, taxes, disbursements, payrolls, purchasing, and infintum. The controller maintains continuous audit and supplies periodic and special reports.

Then there is the sales co-ordinator who draws the threads together on marketing — sales to jobbers of gasoline, other fuels and lubes; of tank car lots; of asphalt; of a variety of other items including petrochemicals; advertising, etc.

Most of the personnel is required in the manufacture division, known more popularly as the refinery. Here again the president as gen-

eral manager is in charge with two assistant managers (one the senior vice president) next in line. The line proceeds through the refinery superintendent, who in turn has two assistant superintendents, one in charge of the operation division, the other in charge of the engineering and maintenance. Each one of these has a myriad of divisions and foremen responsible for the specific functions, and under them are the skilled workers and craftsmen who perform the actual services.

Also under the superintendent are key divisions such as the chief chemist, process engineer, personnel director, chief clerk, and in turn they have foremen, workers and clerks under them.

There is another division, that of organic chemicals, which issues directly from the refinery manager. In turn this embraces the chemical plant, research and development and chemical by products, etc. The chart is complex, but the line is clear and logical, and like the gears of a great machine, the parts turn independently but are inter-dependent.

RUNS THE PIPELINES

Quit Teaching And Law For Oil Trade



R. W. THOMPSON

The oil business is actually the "third career" for R. W. (Stormy) Thompson, Cosden vice president in charge of pipe lines and production.

Thompson's first profession was that of school teacher and coach, a pursuit he followed for three years.

He then went to law school, was admitted to the bar, and practiced law for three years.

Then came the oil business and the job with Cosden. Thompson has been with the company for about 18 years—since 1936.

Management of petroleum production seems like a "far cry" from the classroom and courtroom where Thompson got his start. He admits it's a long jump.

The Cosden vice president has received no formal training in petroleum engineering. Nor in any other kind of engineering, for that matter. Thompson gained his knowledge of the oil industry through "practical experience" and

years of application.

"Stormy"—so called after his father, the late R. M. Thompson, a railroad man with a strong voice and boundless energy—was born in McLean on Christmas Day, 1905. He was reared at Vega, where he attended public schools.

He received a bachelor of arts degree from West Texas State College in 1928 and subsequently taught mathematics and coached athletic teams at Memphis, Bowie and Neocoma high schools.

Thompson decided to enter the legal profession, and received his LL.B. degree from Cumberland University in Lebanon, Tenn., in 1929. He passed the bar examination that same year, returning to Bowie where he was associated with the law firm of Benson & Benson.

A client of the firm was O. V. Beck, independent oil man. Thompson became interested in the oil business, through Beck, and became associated with Beck in 1933.

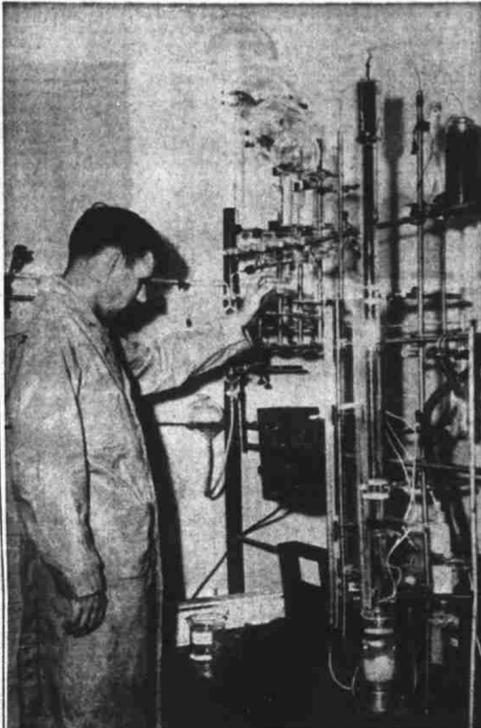
In 1936, Thompson shifted to Cosden's bulk plant on June 1 of that year. Later he shouldered the duties of pipe line department superintendent. In 1940, he was made superintendent of the pipe line and production department.

Thompson served in that capacity until July 21, 1952 when he was made superintendent of the pipe line and production department.

Stormy married Nancy Jo Haymes of Big Spring in 1941 and the couple have two children, Carolyn and Jodie. The family resides at 808 W 17th Street.

Thompson is active in the First Methodist Church, where he has served as president of the board, and in civic affairs. He is a member of the State Bar of Texas, a past president of the Big Spring Country Club, and a past president of the Rotary Club. For several years he has been president of the Cosden Employees Federal Credit Union.

Under Thompson's supervision in pipelines and production department are approximately 50 Cosden employees.



Laboratory

Glenn White, technician in the Cosden laboratories, runs a fractional distillation check on charge stock for the new alkylation plant at the refinery. Constant study and evaluation of processes serves to keep equipment running efficiently and production flowing at a uniformly high level.

Four Name Changes But Cosden Stayed

Corporate structure of Cosden Petroleum has functioned under four different names.

Having recuperated mildly, Joshua S. Cosden returned to the East with a modest stake and succeeded in organizing a new company.

On Feb. 4, 1928, Cosden & Co., Inc. was organized under the laws of the State of Delaware, and on May 5, 1928, Cosden & Co., Inc. was granted a permit to do business in the State of Texas.

Because the company's title was confused with an earlier creature of Josh Cosden—the Cosden & Co. in Oklahoma—he filed an amendment with Secretary of State Jane Y. McCallum on May 31, 1929 to change the name from Cosden & Co., Inc. to Cosden Oil Co.

Nov. 8, 1930, Cosden Oil Co. went into receivership with George N. Moore and Henry Zweifel as receivers in Texas. Then, on May 28, 1933, a permit was granted by the United States District Court for sale of the properties by the receivers. Two days later Josh Cosden bid in the company on behalf of the reorganization committee.

Thus, the company name became Cosden Oil Corporation according to a deed of trust dated May 8, 1933. Then on July 3, 1935, W. D. Richardson was appointed for Cosden Oil Corporation under Section 77-B of the Bankruptcy Act. The U. S. District Court appointed Richardson as permanent trustee on Jan. 18, 1937.

It was on April 26, 1937 that a plan of reorganization of Cosden Oil Corporation was approved by Federal Judge James Wilson. This plan provided for transfer of the properties of Cosden Oil Corporation to Cosden Petroleum Corporation.

Delivery of the properties from Cosden Oil Corporation was made by a deed of conveyance dated April 30, 1937. Neither corporate structure nor name has been changed since that date.

**Congratulations To
Cosden Petroleum Corp.
And All Of Its Employees On This
SILVER ANNIVERSARY
RALPH YARBOROUGH
Democratic Candidate For Governor**

We Salute You Cosden Petroleum Corporation For 25 Years Of Progress

You are important to Big Spring in economic and civic affairs.
We sincerely hope that the next 25 years will be as progressive for you and Big Spring as the past quarter century.



Serving Men and Boys in Big Spring For 37 Years

Howard-Glasscock Crude Is Purchased

From the start Cosden Petroleum Corporation has been a major user of petroleum in the Howard-Glasscock field.

The pace set the first five years is indicative of Cosden's participation.

In 1934, five years after Cosden had been processing crude oil, the field had yielded nearly 53 million barrels. Cosden had bought just a fraction less than 17 million barrels of that oil.

Original Underwriter Is Still On Board

When Cosden Petroleum Corporation was born as result of a reorganization plan approved March 17, 1937, for Cosden Oil Corporation, Karl W. Loeb & Co. and B. H. Roth & Co. were listed as principal underwriters. Mr. Roth continues on the board until this day. Among details in the plan were \$1,322,501 in first mortgage bonds, \$550,000 tank car certificates, 44,204 shares of \$50 five per cent preferred stock, and up to 1,200,000 shares of common authorized although less than half this amount was issued.

Cosden Maintains Birthday Record

Cosden Petroleum Corporation keeps the personal touch with its employees. In fact, everyone in the organization is alerted when a birthday is coming up.

Personnel records reveal this information and a calendar is maintained so the company paper can report birthdays soon to be observed. The company also makes note of certain anniversaries with the company, although only one service award, that for 25 years in the company, is given.

Cosden Meant Business In 1928

When the late Joshua Cosden, founder of the company which bears his name, hit Howard County in 1928 he meant business. In less than a year's time he reputedly had more than \$2 million (some of it in promised oil payments) tied up in leases. Few of them proved very productive, but from those that did he extracted considerable returns—for instance in May 1929 he produced 111,000 barrels from seven wells.

Congratulations

Mr. Tollett
on
A job well done
for

Cosden Petroleum Corp.

and for your
splendid
community
spirit.

FIRST FEDERAL SAVINGS and LOAN ASSOCIATION

R. L. Cook, Pres. Robt. Stripling, Secretary
Elmo Wasson, Vice Pres. Obie Bristow, Director
R. V. Middleton, Director

COSDEN PETROLEUM CORP.

And

BIG SPRING 25 YEARS

It is with deep gratitude that we salute the men and women of Cosden Petroleum Corporation for 25 years of progress.

Cosden Petroleum Corporation is an asset to our community in many ways. It has influenced many of our good citizens to choose Big Spring as the place to make their home... their interest and work in the community's affairs have helped make our town a good place to live and work.

We are proud of our associations with Cosden Petroleum Corporation in both business and civic matters.

BEST WISHES COSDEN ON YOUR SILVER ANNIVERSARY

McEwen Motor Co. Buick & Cadillac . . . Sales And Service

403 Scurry

Dial 4-4354



Congratulations!

Orchids to the
COSDEN
Petroleum
Corporation
 On Your
25th
Anniversary!



- | | | |
|--|--|--|
| COTTAGE OF FLOWERS
1309 Gregg Dial 4-8992 | YOUTH BEAUTY SHOP
Douglass Hotel Dial 4-4431 | TATE, BRISTOW & PARKS
506 Main Dial 4-5504 |
| ASIA CAFE
106 E. 3rd Dial 4-6732 | MODERN CLEANERS
303 E. 2nd Dial 4-2151 | BRADSHAW STUDIO
508½ Main Dial 4-5811 |
| PACKING HOUSE MARKET
110 Main Dial 4-8761 | ORA E. JOHNSON
Chiropractor 800 Main Dial 4-5423 | Toby's Drive Inn & Fast Chick
1801 Gregg Dial 4-9302 |
| AIR CASTLE DRIVE INN
1012 E. 3rd Dial 4-9223 | CECIL THIXTON
Harley Davidson Motorcycles 908 W. 3rd Dial 3-2322 | ENGLE MILL & SUPPLY
705 E. 2nd Dial 4-5412 |
| GIRDNER ELECTRIC CO.
209 Austin Dial 4-2131 | WALKER AUTO PARTS
408 E. 3rd Dial 4-7121 | DERRINGTON AUTO PARTS
And MACHINE WORKS 108 N. Johnson Dial 4-2461 |
| CACTUS GRILL
805 W. 3rd Dial 4-9224 | BUILDER'S SUPPLY CO.
210 W. 3rd Dial 4-7791 | EASON BROS. GARAGE
507 W. 3rd Dial 4-7801 |
| ODELL'S PIT BAR-B-Q To Go
802 W. 3rd Dial 4-9082 | WILLIAM'S SHEET METAL
201 Benton Dial 4-6791 | BIG SPRING NEON
811 W. 3rd Dial 4-8961 |
| SETTLES BEAUTY SALON
Sattles Hotel Dial 4-5111 | HULL & PHILLIPS
611 Lemoss Highway 303 Bell | West Texas Sand & Gravel Co.
Dial 4-5531 1403 Birdwell Lane |
| HAIR STYLE CLINIC
1487 Gregg Dial 4-5851 | | McCrary Garage & Battery Service
305 W. 3rd Dial 4-6831 |

EXTENSIVE RECORDS

RR Commission Tracks All Oil

The Texas Railroad Commission, whose job it is to prevent waste and set allowable production figures in accordance with market demand, has a direct bearing on the operation of Cosden Petroleum Corporation.

Practically every move made by Cosden has to be reported to the Texas governmental agency. In fact the Railroad Commission has to know of every barrel of oil processed through Cosden Pipe Line Company facilities and through Cosden Refinery.

The commission keeps control on the Texas oil industry by its complex system of reports, he explained. Records on every drilling, production, transportation and refining operation in the state are on commission file.

Because of the records which must be filed, Cosden Pipe Line Company is actually in the position of a law enforcement agency, Thompson explained.

The pipe line company has to file reports on the exact number of barrels purchased on each lease which it services. These figures are used to check the lease holder to see that the correct production figures are reported.

If the figures from the lease holder and the pipe line company do not jibe, the reason is determined. Occasionally the lease holder is "cut off" by the Railroad Commission, and no one is allowed to buy his oil.

The Railroad Commission enters the picture with the drilling rig, for operators must file an application to drill. Then a complete well drilling record must be submitted. Reports must also be made when a well is completed or plugged.

When Cosden completes a well, the ability of the well to produce must be reported to the commission so that a daily allowable production can be set. Then a proration schedule concerning the number of wells on the lease is determined. Also on this floor is the mail and duplicating room.

Cosden has two suites on the sixth floor. These are occupied by the purchasing agent, Otto Peters Sr., and staff; and by Chief Geophysicist G. D. Larson and associates.

Expansion of activities in recent weeks forced the removal of geophysical and purchasing offices to the sixth floor of the building. Formerly, they were situated on the third floor.

ber of days the well can produce is issued by the commission.

Not only does the oil operator get a proration schedule, but so does the pipe line company which buys the oil from the well. The producer must file a report to the commission each month on the number of wells on each lease along with the amount of crude flowing and the allowable and production.

The producer must also list the amount of oil sold, and which pipe line company is buying that oil. If this report is not filed, the Railroad Commission refuses to allow pipe line companies to buy the oil.

This strict rule is enforced to maintain Railroad Commission control and insure conservation, Thompson said. Cosden Pipe Line Company has been prohibited from buying oil from particular lease holders a number of times.

When Cosden Pipe Line Company buys oil, a report on just how much is run from each lease must be listed with the commission. Operating by the tender system, the pipe line company must also report where the oil goes.

The refinery reports must also jibe with the pipe line company reports. At the refinery, the crude is processed and authority is obtained to move the products on. The products are sold by tender to the service station transport trucks.

All the Railroad Commission reports for Cosden require the full time services of one and a half men, Thompson said. The pipe lines connect with from 500 to 550 wells, and reports have to be accurate.

Annual Cosden Throughput Close To 8 Million Barrels

Enough crude oil to float a young armada is processed each year at the Cosden Petroleum Corporation refinery here.

Last fiscal year, which ended April 30, the total put-through was 7,808,833 barrels. And it all came from oil fields in this immediate area.

Bulk of the crude processed at Cosden is the "sour" variety which has a high naphthene content and is a source of the aromatics which the local refinery extracts and which is used in the manufacture of products ranging from plastics to pharmaceuticals.

The Cosden pipe line delivers the complete load of sour crude—19,000 barrels daily. It is piped into the refinery from the Howard, Glasscock and East Howard Fields and from Coffield & Guthrie sources in Mitchell and Scurry Counties.

Desk-Derrick Club Includes 32 Cosdenites

Thirty-two of the 44 members in the Howard County Desk and Derrick Club are employees of Cosden Petroleum Corporation.

Cosden is also well represented in the ranks of the officers. Mrs. Sue Ratliff, stenographer at Cosden, is president. Corresponding secretary is Miss Marguerite Cooper, another stenographer.

Mrs. Alma C. Gollnick, manager of Cosden's lease department, is a club director. The Howard County Desk and Derrick Club was organized in May of this year. It is a member club of the Association of Desk and Derrick Clubs of North America.

The local club has made one field trip and has had one guest speaker at a meeting. The trip was through Cosden refinery, which was also made by the Odessa D. & D. Club.

Following the field trip, Dan Krause, assistant to Cosden's

Plants One Time Operated in Graham And In Oklahoma

Big Spring isn't the only place Cosden has operated a refinery or other processing plants.

Cosden constructed a natural gasoline plant in Logan County, Okla., in 1929. This facility was operated until 1938. After discovering a new field in Young County, near Graham, in 1939, Cosden built a refinery there. This plant was sold in 1947.

president, spoke to the club members. He explained in detail the different units and processes which the women had seen on the refinery tour.

Purpose of the local club is to promote among the women employed in petroleum and allied industries a clearer understanding of the industry, according to Mrs. Ratliff.

This is done through information and educational programs. She points out that all meetings will be devoted to some phase of the complex petroleum industry.

"Programs are designed so that women in all segments of the industry can enlarge their scope of service," she said. "Education and closer fellowship are the prime objects of the members of the association."

The first Desk and Derrick Club was formed in New Orleans in 1949

so that oil industry women could be more useful employees by becoming better acquainted with their industry.

Other officers of the club include Mrs. Sue Broughton, vice president, Westex Oil Company; Miss Bonnie Lindley, recording secretary, A. K. Turner Production Company; and Mrs. Billie Smith, treasurer, Basin Oil Company.

CONGRATULATIONS

To

COSDEN

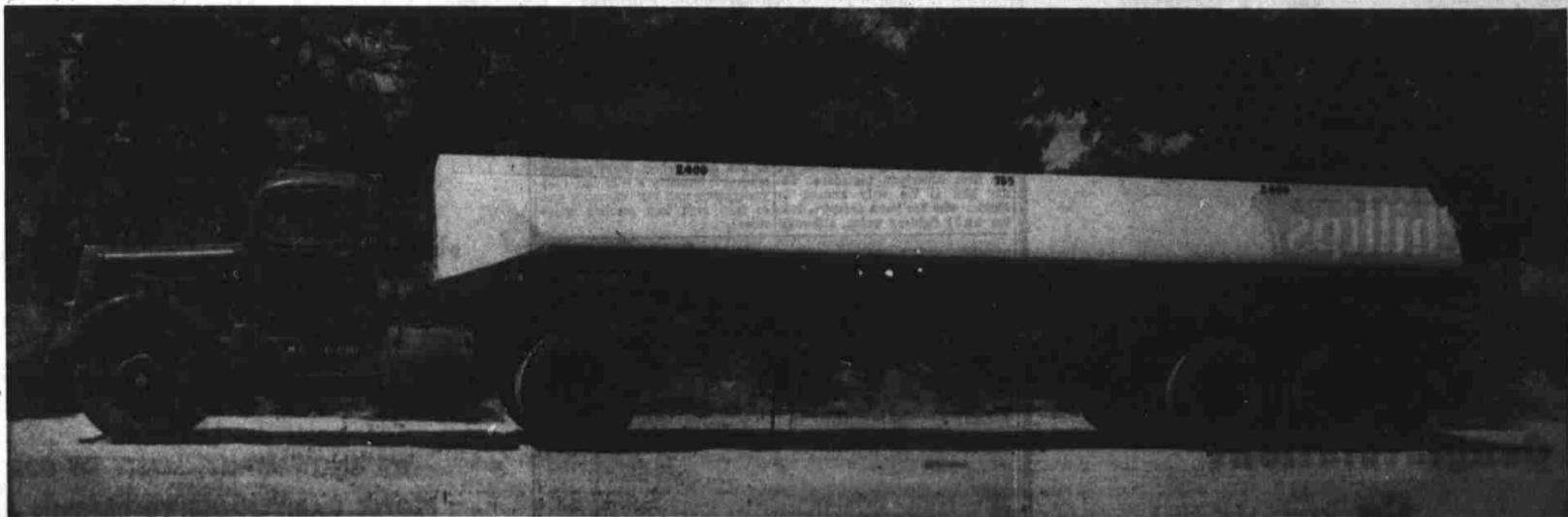
Petroleum Corporation

On Its

25th Anniversary



OIL TRANSPORT COMPANY Big Spring, Texas



Offers Congratulations to Cosden Petroleum Corporation On Their 25th Anniversary Occasion . . .

Yes . . . we of Oil Transport Company take this opportunity to offer Congratulations and Best Wishes to Cosden Petroleum Corporation on this their Silver Anniversary. 1954 marks 25 years of progress in industry, in petroleum advancement in most every field and a multitude of great works for the dire benefit of their local and surrounding communities. The greatest amount of praise given is small compared to services rendered by such an organization.

OTHER TERMINALS AT: ABILENE, AMARILLO, GOLDSMITH, EAGLE LAKE (HOME OFFICE) AND GEORGE WEST



Premium Oil Coming Up

Joe Cunningham and Robert Meeks are shown here canning Cosden's famous Parafine motor oil. This product is carefully blended by Cosden to meet specific driving needs of the Southwest. It is packaged for convenience of station operators. Bill Jackson, Cosden's research director, says that there simply isn't any better oil than the lubricating division has compounded in its Parafine series.

Various Methods Used To Boost Well Production

Cosden Petroleum Corporation uses all the methods employed by other oil operators to "step up" production of wells.

Among the most common of these methods are sandrac, acidizing, clean-out, and water flood. The old method of shooting nitro has been practically abandoned, said R. W. Thompson, production vice president.

The method of completing an oil well depends entirely on the sand or lime of the pay zone, Thompson stated.

If the oil is in a lime zone, acid will more than likely be used to loosen the pay, making it more porous. Thousands of gallons of acid are sometimes used to make one well produce.

If the oil is found in sandy formation of some type, the Cosden operators use sandrac. This is the name applied to a process of forcing sand and load oil into the hole under pressure. The sand forces its way into the pay formation opening up the pay. The load oil sticking in place is later pumped or swabbed out, and flow usually follows through the small tunnels which have been made.

The fracture treatment, including hydrafrac (water fracture), has practically replaced the nitro shooting. It has been demonstrated that nitro serves many times to close up the porosity of the productive zone, while fracturing opens the pay.

Declining wells are reworked a number of times, Thompson explained. The entire well project is cleaned out in hopes that production can be increased.

In a number of cases the wells cannot be brought back up to peak production. No amount of acid will help in such cases. Last year Cosden sandraced three old wells and lost everything. The "strippers" could not be made productive again.

Water flood is utilized on one Cosden lease to increase production. Water is pumped into the pay formation in one well, filling up the space left vacant by oil which has been produced and building up pressure. Oil in greater quantities is consequently forced out the producing wells.



In Charge Of Research

Charged with responsibility of exploring new possibilities for Cosden Petroleum Corporation's production and processing facilities is W. K. Jackson, director of research and development. Bill Jackson's job, he explains, is for him and his aides to be dissatisfied with what Cosden is doing. From this division have flowered such items as the chemical, BTX plants and the polybutene unit. It has also had a hand in development of the asphalt and alkylation units.

PROUD OF HER SUCCESS

He's The Father Of A Famed Matadora

Cosden's chief engineer, E. B. McCormick, is the father of America's first lady of the bull fighting arena—the famed Patricia McCormick.

And though he at one time fought his daughter's attempts to become a matadora, he readily will admit that he is now proud of her success.

McCormick still prefers, however, that his daughter would have chosen another career. He points out that she is a talented painter and sculptress.

In fact, Patricia was studying art at Texas Western University when she became interested in bull fighting. Since the university is located at El Paso, it was only a simple matter for her to cross the bridge into Juarez and watch the bull fights.

Her interest increased, and she soon found herself "passing" the bulls with a cape instead of watching. On the weekends Patricia and other students would go to Morris stockyards to "work out" with the half-wild steers there.

It was during this time that Alejandro del Hiero, who is now her trainer and manager, noticed a picture of Pat which was taken at the stockyards. He made a trip to watch her and decided that he would try to teach her the trade.

Pat was a rapid learner, and in 15 days time was doing quirts—directing the charging bulls from the fighter. It wasn't long until she had her first bull fight at Juarez.

She was still in college at this time. McCormick says today that Pat used the expense money he sent her to pay attendants at the stockyards to let her practice. This activity was unknown to her family.

When Pat told her parents she was going to become a bull fighter, the roof nearly came off the McCormick home. But McCormick and his wife, Frances, decided to give her a year to see if she could master her new found art.

She did, and in doing it received nationwide publicity as becoming the first American matadora. Today she is the only woman in Mexico who has been accepted into the bull fighters union, although

several American models, actresses and other women have entered the field after seeing Patricia in the limelight.

Pat has killed 52 bulls in her arena fights. She has been a professional for more than two years, and during that time has been seriously gored twice.

Pat has appeared on TV programs and has recently completed an autobiography concerning her bull fighting experiences. The book will be published this fall, and it is illustrated with her drawings.

The 24-year-old lass spends most of her time in Mexico and lives with the Del Hiero family when between tours. Her last bull fight was at Nogales on July 4, and several others are scheduled in coming months. She will also go on a tiente in November and December along with the top matadoras in Mexico. Pat has always been a tom boy, according to her father. She was born in St. Louis and went to grammar school in three states—Kansas, Missouri and Illinois. At that time McCormick worked for Shell Oil Company.

The McCormicks have been in Big Spring more than 12 years, and Pat entered high school and graduated here. The family home is at 709 West 17th.

Abbreviations Of Names Is Popular

Cosden goes in for alphabetical designation and nick-names on some of its divisions.

For instance there is the TBA—which simply means tires, batteries and accessories. There is the BTX unit which turns out benzene toluene and xylene. There is the alky unit to turn out avgas (alkylation unit producing aviation gasoline); or the cat cracker (fluid catalytic cracker); formerly a poly unit (polymerization unit for reforming gases into high test gasoline molecules).

AVGAS GOES TO CARSWELL AFB

Cosden's first contract for output from its alkylation unit calls for delivery of nearly 17 million gallons of 145 avgas to Carswell AFB.

This must be made and delivered over a period of six months. At the end of that period, the government will have executed another contract covering the grade and point of delivery for the next period.

\$5 Million Per Month Is Expended

Scope of the work carried on in Cosden's accounting department covers a broad field of activities. The department must pay for all crude oil purchased for the refinery. It must handle all crude "run" tickets.

The company's payrolls, supply purchases, refinery maintenance and other expenditures are made and kept track of by the accounting department.

Clerical workers in the department must prepare bills for all of the refinery's products that are shipped out and must handle collections from customers. All cash disbursements are made through this section, also, and all vouchers are prepared and processed here.

A. V. Karcher, secretary and treasurer for the company, estimates that personnel in the department write 60,000 checks per year. That's about 250 a day and expenditures amount to nearly \$5,000,000 each month.

In addition, after merchandise is sold to Cosden's jobbers, the accounting departments must process the jobber accounts. There are about 400,000 transactions of this type annually.

Credit clerks also must follow up on all customer accounts, of which there are about 7,000.

First Paraxylene Produced In 1953

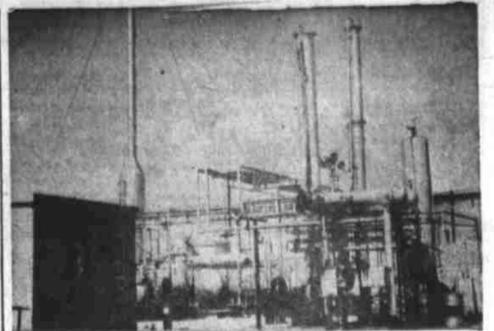
Cosden produced its first tank car of paraxylene under a joint arrangement with Phillips Petroleum Company on Dec. 21, 1953.

The product was 98 per cent pure. It was sold to the Du Pont Company for use in the manufacture of synthetic fibers.

Production of Cosden's BTX plant in 1953 included 38,544 barrels of benzene; 98,874 barrels of toluene; and 122,922 barrels of xylene.

Cosden's BTX plant was "on stream" for only a brief period in 1952.

Production that year, however, consisted of 5,717 barrels of benzene, 21,578 barrels of toluene and 10,513 barrels of xylene.



Works Chemical Magic

Small in comparison to other units in Cosden's vast outlay is the chemical plant, shown above. Mercaptans, which otherwise would impart objectionable odors to fuel, are extracted from gasoline. The mercaptans are marketed as odorants for natural gas and liquefied petroleum gases. The plant also blends ethyl mercaptans and propo and butyl mercaptans. Formerly methyl mercaptans were yielded for use in livestock feeds. The chemical plant also produces polybutene which is marketed through another company. This specialized but versatile material results from a Cosden process developed in its research and experimental work.

**CONGRATULATIONS
COSDEN
PETROLEUM CORPORATION**

For
**25 YEARS
Of
PROGRESS
In The
OIL INDUSTRY**

McDONALD MOTOR
Studebaker Sales and Service
206 Johnson

**BEST WISHES
COSDEN PETROLEUM CORP.
On Your
25th ANNIVERSARY**

May the next 25 years be as
progressive as these past 25 years.

SETTLES HOTEL

**Phillips
66**

**Congratulations
On**

25 Years of Progress
COSDEN PETROLEUM CORPORATION

May Your Future
Years Be As Bright.

K. H. (Chub) McGibbon
Phillips "66" Jobber



Helps Keep Finger On Pulse

L. T. King, above, as assistant secretary-treasurer of Cosden Petroleum Corporation, must keep his finger on the fiscal pulse of the organization. He is associated with A. V. Karcher, secretary-treasurer, in direction of the accounting sections.

**Congratulations
From
Coca-Cola**

We're happy to offer our best of
wishes to your most progressive
organization and wish you the
best for years to come. Again we
say... congratulations COSDEN...

**WE KNOW MANY, MANY OF COSDEN'S
PEOPLE DAILY PAUSE TO REFRESH AND...**

Drink
Coca-Cola
Delicious and Refreshing

**TEXAS COCA-COLA BOTTLING COMPANY
Big Spring, Texas**

Pioneering In Refining Processes Has Been Characteristic Of Cosden

Pioneering has been perhaps the most persistent characteristic of Cosden during its first 25 years of business activity.

From the time Cosden Oil Company started construction of its refinery at Big Spring, the concern and its corporate successors have been reaching out on the petroleum frontiers.

Hardly had Josh Cosden, founder

of the company, started work on his topping plant here than he ordered something relatively new, in this area at least. He had started with Foster-Wheeler topping units, which went on stream in March 1929. He decided to go one better and ordered in Jenkins stills, the first thermal crackers in West Texas.

On June 14, 1929, he announced

that he was installing the first desulphurizing plant in West Texas. The unit was designed and constructed by W. J. Anson who used a compound he called Ansonite to "sweeten" the crude. The initial phase was to be for 1,000 barrels per day going through a series of bubble towers to remove the hydrogen sulphide. If it worked, as Cosden was sure it would, the capacity would be kicked up to 35,000 barrels per day. Moreover, he had plans for units in Crane, Upton and Winkler counties. Also, it didn't work as contemplated.

There followed an experimental sodium process, under the orders of Stanley Cosden, then superintendent. It worked but was regarded as too dangerous at the time and was never developed.

After the reorganization in March of 1933, Josh Cosden set about a modernization program. Accordingly, he pioneered in this section with the Dubbs thermal crackers, processes which still fit into the refinery's operations. Almost simultaneously, he latched on to the Lachman process, which Ernie Richardson, assistant superintendent who has seen progress unfold over a 25-year period, described as a zinc chloride liquid phase treatment. This was supposed to sweeten the gasoline, but while it succeeded in part, it had to be abandoned six months later.

Before this, the irrepressible Stanley had set up a pilot plant for producing oil from shale. Two box cars of raw material were shipped in from Colorado and although oil was extracted successfully, sulphur content was too high and so were costs. Stanley and his father gave up the idea of erecting a big extraction plant in Colorado. Later a Cosden man, J. B. Mull, went to Rifle, Colo. on a government project which did develop a feasible process for this.

When fire destroyed one of the Dubbs units, R. L. Tollett, president, was convinced in 1948 that replacement should be made with a fluid catalytic cracker and a polymerization unit. Thus, in late 1949 Cosden was one of the first refin-

eries in this region to begin production of gasoline with octane rating up to 92.

Previously, Cosden had begun its researching on a modest scale with a small plant that extracted mercaptans from gasoline. This venture opened the door to other and major petro-chemical pioneering. First there was another small program in manufacture of crystalline acids. The big pioneering, however, came with the installation of the BTX (benzene, toluene and xylene) and platforming plant. This

Plant Studied In Puerto Rico, Later Dropped

Two years ago Cosden came within a breath of jumping across the Gulf into a refinery operation. Management of Cosden conceived the idea of erecting a refining plant in Puerto Rico to utilize South American crude. The possibility was explored and some overtures made. Over a period of approximately 20 months, the project emerged from the idea stage and elicited firm support.

By Nov. 23, 1952, R. L. Tollett, president of Cosden Petroleum Corporation, announced that financing had been arranged for a refinery to be operated by Cosden in San Juan Harbor.

The list of subscriptions had been completed on Nov. 21 and included Gulf Oil as an equal partner. Among others were the J. H. Whitney interests and Pontiac Refining Company. Cosden was to design, construct and then operate the facility which was estimated to cost about \$6 million. It was to be a Dubbs thermal two-coil cracking unit capable of handling 8,000 barrels of low gravity crude oil from eastern Venezuela.

During 1951, Cosden officials spent considerable time in San Juan and had selected a site for the affiliate which was to be known as Caribbean Refining Company. Cosden was to have 35 per cent of the property.

There was a delay at the time when the plans were crystallizing and Cosden had to make a choice between holding off on this or going ahead with an alkylation unit at Big Spring. Under the circumstances, the latter course appeared the sounder course. Gulf and others paid Cosden \$75,000 for its studies and advance planning. Today Cosden is operating its alkylation unit and the other interests have a refinery going up in San Juan harbor.

was the first of its kind in the world and turned out these petro-chemicals in unsurpassed purity. Cosden in turn joined with Phillips Chemical in another pioneering venture, a refrigerative crystallization process to extract para-xylene from the xylene output. Almost parallel with this Cosden developed a polybutene process. Cosden also developed a cracked oil specially for furnace type carbon black.

Only recently, Cosden became

the first West Texas plant to install an alkylation unit making high test aviation gasoline.

Cosden also pioneered in the use of sewage effluent for industrial purposes. About the time Cosden turned to this project there were two other concerns tinkering with the idea but gave it up. The city had gone to the Hayes process of treatment and yielded a practically pure effluent, which Cosden took and treated to meet its needs and thus gain an adequate source of industrial water.

Cosden also pioneered on the traffic front. During the war Cosden shipped the first solid trainload of gasoline from the refinery here to the East. Later, a train of Cosden tank cars carried the first trainload of crude to the East. Multiplied thousands of cars were to follow. Then Cosden joined with the T&P to pioneer in the "pipeline on wheels" rate, a structure which permitted products to move in trainload lots at tariffs comparable to pipeline costs for equivalent tender.

In a variety of other ways, including human relations, Cosden has not been afraid to embark upon programs which management had reason to believe would be beneficial and sound. Cosden's traffic cop wears a coonskin cap in spirit if not in fact.

THE SUPERINTENDENT

Grimes A Veteran In Refining Work

George Grimes, refinery superintendent for Cosden, has been recognized as a person of authority ever since he started working for the corporation more than 25 years ago.

When he first obtained a job at the refinery back in 1929, he had already spent four years in the business. And he was one of the few people at the Cosden plant familiar with the operation of a pipe still.

Consequently he began his association with the corporation as a crude still operator on the pipe still.

At that time Grimes was working under Wayne Rice, the original superintendent of Cosden's refinery. Rice had previously been Grimes' superintendent at the Marland Refining Company at Ponca City, Okla.

When Rice took over Cosden Petroleum Corporation's refinery, Grimes followed him here.

In 1933, only four years after arrival, Grimes was made night superintendent. He held that position until May, 1939, when he was transferred to Cosden's refinery at Graham as assistant superintendent.

Only a few months later, in September, 1939, Grimes was made superintendent of the Graham refinery. He returned to Big Spring in September, 1945, as still foreman.

In October of 1946 he was made superintendent of the Big Spring refinery, the position which he now holds.

Not only did Grimes gain four years experience in the refinery business at Ponca City before coming to Cosden, but he also gained a wife there. He and Miss Emma Sherbon were married at Ponca City in 1926.

They have a daughter, Mrs. John E. Brown, and two sons, Richard and Clarence, all of Big Spring.



GEORGE GRIMES

They also have three grandchildren.

A native of Marshall, Mo., Grimes was reared and educated at Slater, Mo. He later took a business course in Chillicothe, Mo., and in April, 1925, went to work for the Marland Refining Company.

He celebrated his 25th anniversary with Cosden on March 15 of this year.

Grimes is a member of the Chamber of Commerce, the Country Club and the Rotary Club. He likes to play golf and bowl.

Fluid Catalyst Used

Cosden uses the fluid catalytic cracking process in its "cat crackers." By this method, the catalyst is continuously being "regenerated" as the unit operates. The catalyst comes in the form of small particles, each 0.0006 of a meter in diameter.

1934 PROPHECY HOLDS GOOD

The Big Spring Herald was somewhat prophetic in a headline on Feb. 11, 1934.

"Big Spring's Future Depends Largely on Cosden," said a banner. With a record of well over 600 employees, an annual payroll approaching \$3 million, the position of being the county's largest taxpayer, plus employees in responsible community positions of all sorts, the headline was on solid ground.

221 W. 3rd

Montgomery Ward

Dial 4-8261

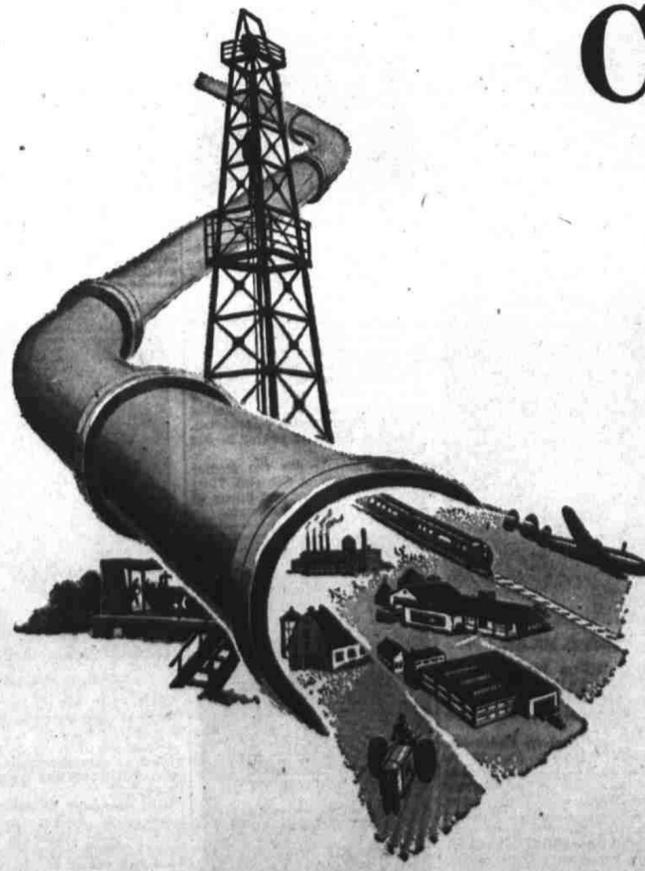
CONGRATULATIONS

Cosden Petroleum Corporation

We extend to you our congratulations on your Twenty-fifth Anniversary and wish you continued success in your future operations.

Congratulations

COSDEN



It is indeed a pleasure for us to add our congratulations to Cosden as it observes its 25th Anniversary. Cosden has been an active leader in many facets of Big Spring's development during the past quarter of a century and as Cosden has grown and progressed, so has our city. They are to be commended for an outstanding civic attitude. It has been our privilege to have supplied Cosden with natural gas during the past years. For the pleasant business association with them, we gratefully say thank you.



EMPIRE GAS CO. SOUTHERN CO.

Champ Rainwater, Mgr.

419 Main

Dial 4-8256

Meet The Old Timers Of The Cosden Petroleum Family



DIXON BIDDISON

A Big Spring resident for most of the time since 1915, Dixon C. Biddison rates among Cosden's group of veterans by virtue of his employment on April 24, 1935. He first worked in the maintenance department. In May 1941 he was made gauger, was later promoted to stillman and in 1950 became an operator No. 1.

Biddison was born in Fort Worth and attended grade school there. He went to high school in Big Spring. He served in the Navy and Army during World War I and upon discharge worked for the Fred Harvey Newsstands in Texas and Oklahoma. He returned to Big Spring in 1928.

He and Mrs. Biddison, the former Miss Gussie Parrish of Fort Worth, have one son, Charles D. Biddison's hobby is maintaining a trailer park on some property he owns east of Big Spring.



LONEY BUNGER

Loney Bunger is a Cosden veteran of 18 years service. He began in September, 1936. Bunger was born in Hartford, Ky., and was reared and schooled there. He moved to East Texas and farmed for several years until he went to work for the Frisco Railway in Fort Worth. From that job he joined Cosden.

He started to work as a tank car inspector and worked up to be railroad tank car repairman.

Bunger was married to Miss Bertha Thompson of Healdton, Okla. They have one daughter, Mrs. H. C. Tidwell. Bunger is a member of the Masonic Lodge. He was a charter member of Hemphill Heights Lodge No. 1164 A.F.&A.M., Fort Worth. He is a member of the Church of Christ. Raising chickens is his hobby.



H. C. WALLIN

H. C. Wallin has been with Cosden for 19 years. Though born in Dallas, Wallin later moved with his family to Fort Worth. He was educated in the Fort Worth public schools. After graduation from Central High, he attended Texas Christian University where he received a degree of Bachelor of Business Administration.

Before coming to Cosden, Wallin worked for Armour & Co. in Fort Worth. His association with Cosden began on June 17, 1935, when he was hired as a tester. Since 1935 he has worked at the refinery as tester, gauger, still foreman and shift foreman. The latter position he now holds.

Wallin was married to Miss Juanita Young of Dawson in 1941 and they have two children. The Wallins are residents of Coahoma. They attend the Baptist Church. Wallin has served as City Alderman.

For hobbies Wallin chooses all types of sports. At one time or another he has participated in prac-

teally all of them. He played on both the baseball and basketball teams for Cosden and has also played professional baseball. However, hunting and fishing now rate first with him.



RAY SHAW

A Big Spring resident for most of the years since 1925, Ray Shaw rates among Cosden's group of veterans by virtue of employment that dates back to Sept. 2, 1934.

He joined the company on that date, going to work in the yard. In February, 1935, he was made boiler fireman helper, was promoted to water tender in June, 1936, and in 1945 became boiler and water foreman, the position he now holds.

Native of Hunt County, Shaw was reared and schooled there. He worked for a pipeline contractor out of Dallas for four years beginning in 1921. In 1925, he came to Big Spring on a visit and has been here since, with the exception of brief periods of residence in Abilene and Hobbs, N. M. From 1936 to 1934 he was in sales work, wholesale and retail.

Shaw was married to Vanna Bell Horton of Big Spring, March 13, 1930. They have one son.

Shaw is a member of the American Business Club and is a member of the First Christian Church. His outside-of-work interests include farming, fishing and baseball.



JAMES HOWARD SHEATS

Another of Cosden's veterans is James Howard Sheats, who has been with the concern since 1937. He was born in Dublin and attended public schools in Estelline. He also attended King's Business College in Lubbock for one year.

Prior to his joining Cosden, he farmed for several years and was later employed by Montgomery-Ward as warehouseman. When he joined Cosden in August, 1937, he was assigned to the laboratory and remained there until he was promoted to mechanic No. 1.

In 1929 Sheats was married to Velma Smith of Denton and they have two children. The Sheatses live at 501 Gollad.

He calls his favorite hobbies fishing, baseball and basketball. He is a member of the Assembly of God Church.



A. C. WILKERSON

When A. C. Wilkerson joined Cosden 17 years ago he started in the laboratory. He worked at various jobs there and in 1944 he was promoted to boilermaker No. 1.

He was born in Justin and attended public schools in Keller. After completing his schooling, he moved to Big Spring. Before coming to work with Cosden he was employed by the Planters Gin Co., the T&P Railroad and the Southern Ice Co.

On Sept. 28, 1928 he was married to Miss Julia Ann Allison of

Big Spring and they have four children.

He is a member of the Mullen Odd Fellows Lodge No. 372, Encampment No. 153, Canton No. 23. He is Past Grand of Mullen Lodge No. 372, Past Chief Patriarch of Encampment No. 153. He is also a retired Captain, Canton No. 23 and is a member of the Grand Lodge of the State of Texas.

His hobbies are hunting and fishing and scouting. He has been a scoutmaster. He is a member of the Presbyterian Church.



ALLEN MONROE WIGGINS

An 18-year man with Cosden is Allen Monroe Wiggins. A native of Oklahoma, he was born, reared and schooled in Amerada, Okla. After completing his schooling, he farmed in Oklahoma until he moved to Big Spring and accepted a job with Cosden Pipe Line Co.

He came to work on March 25, 1936 as a pumper and maintenance worker and worked up to operator No. 1, a position he was assigned in December, 1951, and which he still holds.

In 1933, he was married to Miss E. A. Reigh of Sulphur, Okla. They have three children.

Wiggins is an avid follower of sports. He particularly likes baseball and has been a pitcher most of his life. Shortly after his association with Cosden, he began pitching on the Cosden baseball team. Hunting and fishing are now his favorite hobbies.

He is a member of the E. 4th St. Baptist Church.



OTTO PETERS JR.

On Aug. 5 Otto Peters Jr. will observe his 18th anniversary with Cosden.

Otto was born in Syracuse, N. Y.; however, he has spent most of his life in Oklahoma and Texas. He attended elementary school in Breckenridge and high school in Big Spring, where he graduated.

A Cosden associate throughout his working career, Otto has been employed by the company since 1936. He worked in the maintenance department and operating department in the refinery and was time and yield clerk before assuming his present position as paymaster and treasurer of Cosden Employees Federal Credit Union.

On Aug. 6, 1938 Otto was married to Bobbie Lloyd of Big Spring. They now have two children and live at 811 Runnels.

Otto is a past treasurer of the ABC Club, is treasurer of St. Mary's Episcopal Church and a member of the choir at the church. He is interested in all sports but fishing is his favorite.



M. H. BOATLER

Born and reared in Big Spring, M. H. Boatler took naturally to Cosden for a career. His service with the company began Sept. 19, 1934. He began as a laborer, in 1936

he was made labor gang pusher and in 1945 was advanced to maintenance foreman.

Boatler married a Big Spring girl, Miss Edith King. They have two children. He raises horses as a hobby.



G. K. CHADD

G. K. Chadd, chief chemist for Cosden, is a native of Oklahoma. His connection with Cosden began Nov. 19, 1938, when he became chemist foreman.

Chadd attended grade school and three years of high school at Ada, Okla. He graduated from Big Spring High. He was awarded his B. A. degree from the University of Oklahoma in 1936.

Chadd was married to Freda Wood in 1940. They own their home at 806 Dallas. They have two children, Marilyn Kaye and Kenneth.

Fishing and hunting are Chadd's favorite sports. He is a member of the First Methodist Church.



L. D. GILBERT

A visit to Big Spring in 1937 with relatives probably changed L. D. Gilbert's whole life. While here he decided to go to work for Cosden.

The company put him to work in the maintenance department and in 1943 he was promoted to stillman. In 1949 he was made Operator No. 1.

He is a native of Pennsylvania and is married to the former Catherine Averil Sturm of Chicago, Pa. They have five children. Gilbert was born in Clarington, Pa., and attended school in Bruin, Pa. After graduating he worked for Ultra Penn Refining Co. in Pittsburg, Pa.

He loves fishing and other sports, particularly golf and baseball.



A. B. WEST

A. B. West came to Big Spring to join the Cosden force May 12, 1939. Native of Dunn, Scurry County he had been reared and schooled at Lorraine, and after completing high school there, worked for a time in a grocery store before coming to Big Spring and Cosden.

He is known to his many friends as "Skeet." His first employment was in the refinery laboratory, where he worked for a year and a half. He held various jobs in the refining plant, then went to the pump house as a pumper, working there until September, 1946, when he became loading rack foreman, his present assignment.

When he isn't working, "Skeet" is an ardent devotee of golfing and fishing.

He was married, June 15, 1935, to Miss Emma Kate Spurger of Lorraine, and they reside on a farm northwest of town. They are members of the Country Club and of the First Methodist Church.



RAYFORD LILES

Frank Rayford Liles is another native of the "Sooner" State who chose a future with Cosden in West Texas. He has been with the company since Aug. 16, 1935.

He was born in Duncan, Okla., but was schooled in Forsan. His first job was with Cosden and he has been with the company ever since.

He is now district pipeline gauger. On July 10, 1937 he was married to Edith Johnson of Big Spring. They have one daughter.

They are active in all civic activities in Forsan and are members of the Big Spring Country Club and Howard County Athletic Club. He is interested in all types of sports.

Liles served as a Petty Officer in the Coast Guard during World War II. He is a member of the Baptist Church.



WALTER D. WILLBANKS

The business association of Walter Daniel Willbanks and Cosden dates back to 1936. He has been continuously employed by Cosden ever since.

He was born in Brownwood, attended elementary and secondary schools in Brady, and then attended the University of Texas. He enlisted in the Army while at the University. In 1919 he went to work for Waples-Platter Grocery Company of Brady and Amarillo.

He left them in 1924 to take up newspaper work. After having worked on three different newspapers—The Amarillo Globe News, San Angelo Standard Times and Big Spring Daily Herald—for a period of 11 years, he came to work for Cosden.

Willbanks worked in the yard for several years and then was promoted to foreman in the security department on July 24, 1937.

On Oct. 26, 1930 he was married to Miss Agnes C. Decker, of Menard. They have one son, Willbanks is a member of the First Methodist Church.



BERT D. SHIVE

Among the veterans of the Cosden organization is Bert D. Shive. His association with the company dates back to Aug. 1, 1939. He is a district gauger.

Shive was born in Lamesa and attended public schools in Big Spring. After completing high school, he attended Texas A&M College.

He worked for Miller Bros. Cleaners and No-D-Lay Cleaners before accepting a job with Cosden as gauger. On April 15, 1939, he married Hattie Belle Mullens of Big Spring, and they have a son, Donnie. The Shives live in a company house on South Route, Coahoma. He is very active in Lodge work. His membership is in the Staked Plains Lodge No. 586, Big Spring. He is past president of all York Rite Bodies, which entitled him to membership in "Knights of the York Cross of Honor." He received

this honor in Waco in December, 1951. He has been recorder of Big Spring Commandery of Knights Templar No. 31, and has been a steward in the First Methodist Church.

His hobby is fishing.



RAY GROSECLOSE

Ray Groseclose is another Cosdenite whose affiliation with the company dates back to 19 years ago.

He began with Cosden in the Maintenance department in May of 1935. He has held a variety of jobs and in 1946 was advanced to operator No. 1. Before coming to Cosden he was employed by the Lone Star Gas Co. and Humble Oil Co.

Groseclose was born in Breckenridge but was graduated from Abilene High School. His wife is the former Lella Wilson of DeLeon. He is interested in all sports and at one time or another has participated in most of them. At Cosden he has played on the Cosden Oilers basketball team and on the Cosden Laboratory softball team. Fishing and hunting are now his favorite hobbies.

He is a member of the First Christian Church.



R. W. HALBROOK

Nearing the 21st anniversary of his association with Cosden is R. W. Halbrook.

Halbrook joined the company on Oct. 10, 1933. He first served as a boilermaker helper and after a short period was advanced to machine shop foreman, the position he holds now.

Halbrook is a native of Baird school. He went to work for the Texas and Pacific Railroad in 1924 as a machinist apprentice, advanced to machinist four years later and worked at that trade with the T&P until he joined Cosden.

Mrs. Halbrook is the former Clara Frances Bailey of Big Spring. They own their home at 1111 Wood. They have a daughter.

Halbrook goes in for sports, is particularly keen on baseball. He is an avid follower of the Brones and the high school teams.



ODIS G. MILAM

Odis G. Milam began his 17-year career with Cosden as a member of the maintenance department. He worked up to be mechanic No. 1.

Milam was born in Henderson. He received his schooling in the public schools of Olney. After completing his school work, he farmed for several years; then he worked for the Wichita Falls and Southern Railroad Co. for two years. After leaving the railroad he worked for oil field contractors until coming to work for Cosden. In 1923 he was married to Miss Maude Caw of Olney and they have two daughters. Milam is a member of the Fraternal Order of Eagles. Hunting and fishing are his hobbies.



OSCAR JOHNSTON

The association of Oscar F. Johnston with Cosden dates back to April 22, 1935.

Born in El Paso, Johnston was reared and schooled in Lamesa. His first job was with Cosden. He began as a sampleman and has held various jobs around the refinery before assuming his present position as Laboratory Foreman.

He goes in for fishing and devotes all leisure hours to this pastime. He is a member of the Baptist Church.



F. R. CUNNINGHAM

Once a member of the well-known "Cunningham" baseball team, is F. R. Cunningham, a Cosden veteran of 19 years service. He was born, reared and schooled in Fannin County. After completing his school work, he farmed for a few years then went to work for the Texas and Pacific Railway. From that job he joined Cosden.

He first went to the maintenance department and worked up to salvage repairman.

He and Mrs. Cunningham have a son Billy. Cunningham is not strictly a baseball man, he likes all sports.



JAMES D. CAUBLE

James D. Cauble began his career with Cosden as a maintenance laborer. That was in September, 1936.

His employment began at the Big Spring refinery. He worked here until 1945 and was then transferred to Graham. There he was superintendent of the refinery. In 1947 Cauble returned to Big Spring. He worked as a pumper helper and electrician helper before assuming his present position as selectorian.

He was born and reared in Big Spring.

He is married to the former Dorothy O. Hill of Gibtown. They have two daughters and belong to the Wesley Methodist Church.



ROLAND A. SCHWARZENBACH

Roland A. Schwarzenbach has been with Cosden 18 years. He began his career as a loader and

blender. He has held various jobs during his 18 years and is now an operator No. 1.

Schwarzenbach is a native of Big Spring. He attended public schools here. He is a veteran of World War II in which he served in the Navy for two years. On Oct. 24, 1942, Schwarzenbach was married to Virginia Whitney. They live at 211 W. 9th St., Big Spring.

Schwarzenbach was business manager of Local No. 826 for two years and has been its president. He is a member of the Presbyterian Church. He likes football and softball but his favorite hobbies are fishing and hunting.



VIRGIL HOLDEN

Nineteen years ago Virgil Paul Holden began his service with Cosden.

Born in Roscoe, Holden went through public school in Dublin and later attended Electrical Trade School in Kansas City, Mo.

He went to work for Bennett Electrical Trade School in Sweetwater, then owned and operated an electric and refrigeration shop in Big Spring before joining Cosden as an electrician. He worked up to electrician foreman.

Holden is a member of the Church of Christ. Hunting, fishing and working in his home workshop are his hobbies.

He was married to Miss Ruth Hargrove of Colorado City in 1931. They have a son.



OTIS O. CRAIG

Otis O. Craig is a veteran of 19 years' service with Cosden. His present position is alkylation still foreman.

He joined Cosden in May of 1935 as an asphalt tester. He has held several different jobs in the refinery. Craig was employed by Col-Tex prior to his coming to Cosden.

Born in Ballinger, Craig attended grade school in Eastland and high school in Oklahoma City, Okla.

His hobbies are golf, photography, football and bullfighting. He is a member of the Lions Club. He belongs to the Protestant Episcopal Church of America.



CECIL E. MILAM

Cecil Elvin Milam has been a Cosdenite since March 2, 1937 when he joined the company as a painter.

During the 17 years he has also worked as a gauger, fireman, stillman, and in 1951 was made operator No. 1.

Born in Elbert, he received his schooling in Padgett and South Bend. Before coming to Cosden, he was a cafe operator in South Bend and worked for Marvin Hull Motor Co. in Big Spring.

During World War II, Milam served in the Army Combat Engineers from March 1942 until September 1945. He served in nine different foreign countries and was awarded three battle stars.

Many Cosden Employes Have Long Records Of Service



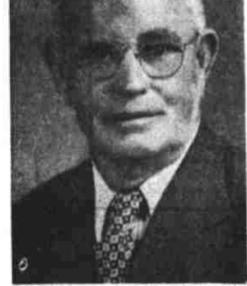
SAMUEL MORELAND

Samuel N. Moreland can count 23 years with Cosden. His association with the company began July 24, 1931.

Another of the many native Texans in the Cosden family, Moreland was born in Parker County and was reared and schooled in Young and Wise Counties. After completing school, he farmed for a few years, then went to work for the Santa Fe railroad in Brownwood. From that job he went with Cosden.

Moreland started to work as a still cleaner, worked up to still foreman, which he is now.

He is a member of the Masonic Lodge and has been a member of the board of deacons of E. 4th St. Baptist Church. Hunting and fishing comprise his leisure pleasures.



HERBERT MCCLUSKEY

A 21-year veteran of Cosden's pipeline department is Herbert McCluskey, who started as a maintenance employe on Jan. 1, 1933 and is now a pumper.

McCluskey was born in Tennessee and attended school in the state. He moved to Oklahoma and was engaged in construction and railroad work in that state until 1929 when he moved to Coahoma. He did highway work for three years, moved for a time to Breckenridge, then returned to Coahoma in 1926 to go to work for the Marlin Pipeline Co., in the Chalk field.

He left Marlin for employment with Cosden.

McCluskey was married to Miss Nadine Schultz of Coahoma in August 1922. They have four daughters and two sons. The McCluskeys are members of the First Christian Church.



C. A. TONN

Here's a Cosden old-timer who didn't plan to be one.

He is Charles A. Tonn, who, when he started to work at the Big Spring refining plant back in November, 1932, intended to work only through the winter. But he liked the work so well that he changed his mind, became a permanent employe, and now dates his Cosden career back more than 22 years.

Tonn's first job was with the clean-up gang, and he was transferred to the stills in 1935. At the present time he is an operator No. 1.

Native of Menard County, Tonn moved from there as a small boy and received his schooling in Douglas, Ariz.

He moved back to Texas, to Odessa, in 1916, was a truck driver for a couple of years, and then went into farming, in which he spent eight or ten years before trying his hand with Cosden.

Tonn was married to Miss Mary Ola King of Llano May 5, 1917, and they have five children. Four are married and away from home.

The Tonns live at 410 NW 10th St. He is a member of the Baptist Church and the Masonic Lodge. He enjoys working around the yard, but admits that attending a baseball game is a lot better.



JOHNNY B. HARRISON

Another native West Texan who is a Cosden veteran is Johnny Benjamin Harrison Sr., whose first employment dates back to 1930.

He came to Big Spring in 1930 and worked briefly as a carpenter's helper, then joined Cosden in May. In September he went to work as the gauger for the Tidal Oil Company in Hobbs, N. M., but after about six months returned here. He worked "extra" for Cosden beginning Aug. 9, 1931 and was placed on the permanent payroll Oct. 21, 1931, in the maintenance department.

He was transferred to the operating department as a gauger in December, 1933, and has spent 15 continuous years in that department. He is now shift foreman.

Harrison was born in Abilene, but moved with his family to Haskell County and then to Stonewall County where he attended high school. He moved to Howard County in 1927 and settled near Knott and farmed until coming to Big Spring.

Harrison and his wife, the former Jewel Irene Marsh of Cooper, are active workers in the E. 4th St. Baptist Church.



LOWELL BAIRD

Lowell Baird, Cosden sales representative, lacks just one year being a 25-year man. He joined the company in 1930.

Lowell has had several types of work with Cosden and has been located at various places.

He went to work at the plant here, in the laboratory, Feb. 16, 1930, and was assistant chief chemist for seven or eight years. On May 15, 1939, he was transferred to Graham as superintendent of the Cosden refinery there. In August 1946, he went to Sweetwater, where he helped construct and put into operation the company's first products terminal.

Baird is a native of Sweetwater, was reared in Loraine and graduated from the high school there in 1937. He was married to Miss Allene Bass of Big Spring March 7, 1932.

Baird served for three years in the Air Corps.



C. L. PATTERSON JR.

C. L. Patterson Jr.'s continuous employment with Cosden dates back to July, 1933.

Native of Menard County, Tonn moved from there as a small boy and received his schooling in Douglas, Ariz.

He moved back to Texas, to Odessa, in 1916, was a truck driver for a couple of years, and then went into farming, in which he spent eight or ten years before trying his hand with Cosden.

He left the company's employ in 1930.

Patterson joined Phillips Petroleum at Borger, in the sales department, later went to Ballinger to operate a filling station, then returned to Cosden in 1933. He has held various jobs in the refinery and now is an operator No. 1.

Patterson is a member of the First Christian Church, is affiliated with the Masonic Lodge in Big Spring (a 32nd degree Mason) and belongs to the Scottish Rite Consistory in Dallas. Hunting and fishing are his hobbies.

He was married to Miss Oreta McWhirter of Ballinger in 1930 and they have three children. They own their home at 2200 Runnels.



RUPERT A. CHAMBERS

Rupert A. Chambers has been continuously a Cosdenite since Jan. 1, 1933.

He was born in Danville, Ark., and moved with his family to Oklahoma when he was 8. He farmed in Oklahoma and New Mexico until 1928 when he moved to Fectus and helped in the construction of a refinery.

He also moved to Forsan in 1928 and went to work for Cosden in the production department. He was transferred to Penwell before a brief layoff, then rejoined the company in 1933 in the pipeline department.

In 1946 he was made maintenance foreman, the job he now holds.

He was married to Miss Lillian Yarbrough of Oklahoma in 1911. They have four children, Walter, Audrey, Edgar and Virginia. Chambers is active in the Forsan Service Club and likes all kinds of sports.



RUBE R. MCNEW

Advancement to better jobs has been one of the chapters in the Cosden story for Rube R. McNew, whose service with the company began Aug. 17, 1933.

McNew started out in the maintenance department. He held various jobs in the refinery and in October, 1936, was made maintenance gang pusher. In June, 1946, he was promoted to maintenance foreman, a position he now holds.

Native of Dawson County, McNew moved to Big Spring while he was a boy, and went through the schools here, graduating in 1928. After his school days, he farmed until he joined Cosden.

Mrs. McNew is the former Ruby Boutler of Big Spring. The McNews have two children. McNew is a member of the Presbyterian Church. Ranching and hunting claim his interests outside of work hours.



H. W. WALL

A 17-year man with Cosden is H. W. Wall whose first job was in the maintenance department; however, during the years of his employment, he has worked in various departments of the refinery. He was made relief shift foreman

on Oct. 1, 1950, and now holds the position of shift foreman.

Nall was born in Coleman, but received his education in Big Spring schools. He was married to Margaret Cruse of Honey Grove on May 14, 1928. They have no children of their own but have reared two children who are now married and have families of their own.

Before joining Cosden, Nall was shipping clerk and bookkeeper for M. J. Radford and Co. He also worked for Piggy Wiggly in San Diego, Calif., and from 1928 to 1934 he was in grocery business with his father and brother.

He likes sports, particularly football and baseball. He is also an ardent fisherman. He was temporary president of Local Union 826 at the time of its organization and was elected president the first year after receiving the charter. He is a member of the Methodist Church.



DAVID J. HOPPER

David J. Hopper began his career with Cosden in 1933 when he started as a fireman at the stills. He has held various jobs at the loading rack, the treaters and was a stock gauger. He is now pumper No. 1.

Although he was born in Roscoe, he spent his boyhood in Big Spring and graduated from high school here. He attended Baylor University for a year.

Hopper served in the U. S. Navy for three years. A part of his combat duty included time on the U. S. Cruiser Helena, which was torpedoed and sunk in the Kula Gulf during the New Georgia Island invasion July 3, 1943. Hopper was injured in that action. He was a first machinist's mate (shop) when he was discharged from the Navy.

Hopper is married to the former Jewel Irene Meek of Robert Lee. They own their home and farm in Martin County near Stanton. He enjoys all types of sports during his leisure time.



THURMAN GENTRY

Thurman Gentry could have turned out to be a farmer. He was born on a 168-acre homestead in Oklahoma. But neither his father nor he clung to the farm and when the elder Gentry turned to the oil fields, so did Thurman.

He worked in the booming fields during the summers of his teens. He managed two years at the University of Oklahoma and then went to Southeastern Oklahoma State Teachers College in Durant where he studied to become a teacher.

In March of '29 he wrote his friend, Johnny Erter at Cosden, for a job. Thurman didn't become a teacher.

He started in the laboratory and was there until 1937 when he was promoted to treating and pumping. Some people may remember how Gentry after he went to work at treating and became known as "Wrong-way Gentry" because he always tried to turn valves the wrong way when he opened them.

His favorite football team has always been Oklahoma University. He is an expert grandstand fan of both football and baseball and can quote off Yankee statistics like Bill Stern.

He persuaded Miss Dorothy Jordan, a member of the pioneer publishing family, to marry him on June 6, 1937. But the new Mrs. Gentry continued her teaching of speech and English at the high school.

Thurman's hobby is plainly his son Tommy. He serves as committeeman of Part 1 of the Cub Scouts, Tommy's pack. He spends hours on the stamp album. He reads to him and plays all kinds of games with him—including chess at which Tommy claims he is better than his dad.



JOHN W. WOOD

Another of those Cosden veterans who helped in the original construction of the refinery and gathering system is John W. Wood.

He first went to work for the company in 1928, helping to lay the pipeline from Forsan field to the refinery, and helped in construction of the first loading rack.

He left Cosden in 1931 to farm for a time near Roscoe, then returned here Sept. 1, 1933, as a mechanic helper. In January, 1939, he was made mechanic leadman. He is now a mechanic foreman.

Native of Haskell County, Wood moved with his family to Stonewall County while he was a boy, and received his schooling there. He worked for refineries at Fort Worth for several years before joining Cosden.

Wood was married to Miss Ruby Donnell of Peacock in 1925 and they have three sons. Gardening and poultry raising are Wood's hobbies. He is a member of the First Methodist Church of Coahoma and has been treasurer of the Coahoma School Band Booster Club.



W. O. MCCLENDON

Carpenter work with the Cosden Petroleum Corporation has occupied William O. McClendon for the past 24 years since he joined the company in 1930.

McClendon was born near Midlothian and attended high school in that town. He moved with his parents to Arkansas in 1914 and then to Oklahoma the following year.

He taught school in Oklahoma for a few years and when World War I came he joined the Army and served at Camp Pike, Ark. After his discharge he went into oil field work and from 1920 to 1923 was associated with the Kingwood Oil Co. at Okmulgee.

McClendon served his carpenter's apprenticeship at Albuquerque, N. M., with the U. S. Veteran's Bureau, then moved to Big Spring in 1927 and worked here as carpenter. He is now carpenter foreman.

McClendon was married to Elva A. Blackwell at Octavia, Okla., in 1917. They have a son and two daughters. He is a member of the E. 4th St. Baptist Church.



GENE FLEWELLEN

The late Victor H. Flewellen, always a booster for Big Spring and its industries, organized the first company to sell Cosden products in this area.

Today, on the same downtown lot where his father's business operated for more than a decade, his son, Gene Hardy Flewellen, has a Cosden station. It is within the shadows of the headquarters of the company the elder Flewellen never tired of extolling.

When Cosden Oil Company first began production of gasoline at its refinery here in 1929, there was no local marketing set up. The fuel went principally to the Midwest and some to the East. The late W. H. Homan, who had operated the city's first service station at 107 E. 3rd since June 21, 1922, had sold Cosden fuel right along, but it remained for Flewellen to organize a company for distributing to retail outlets.

This he did in the middle of 1930 "believing that such products

as Cosden's could be marketed profitably to all concerned." He went on to say that he was convinced that "great economic good would accrue to our community as a whole for practical support of such a wonderful industrial asset as Cosden."

He not only erected a station at 2nd and Scurry Streets, where Gene Flewellen now is in business with Cosden products, but he also had a station at 4th and Scurry Streets.



GARRETT PATTON

Garrett E. Patton started his career with Cosden on June 25, 1936, in the laboratory. He served as a sampler, tester No. 2 and tester No. 1. In 1947 he was promoted to the job of machine shop helper first class. He is now machinist No. 1.

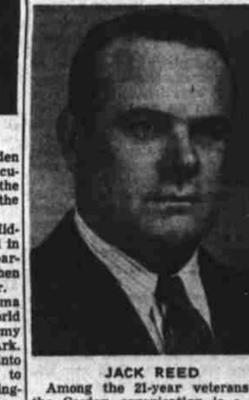
He was born in Haskell and received most of his schooling there. However, he moved to Big Spring before he graduated from high school so he completed his schooling here.

After his graduation he was employed by the Southern Ice Co. and later moved to Ballinger to work for the Fort Worth Paper Agency. It was from this job that he went with Cosden.

In 1937 Patton was married to Miss Mae Dell Wilson. They have two children.

Patton's hobbies are golf, baseball and fishing. He also enjoys working with Boy Scouts. For a period of five years he was very active in Scout work. He served as Assistant Scoutmaster and also as Scoutmaster.

He is a member of the Baptist Church.



JACK REED

Among the 21-year veterans of the Cosden organization is a native Big Springer, Jack Reed, whose association with the company goes back to Dec. 4, 1933.

Reed was reared here and had his public schooling in the local schools. After finishing school, he farmed for a while and then went to work for the N. C. Converse Contracting Co. of Tulsa, Okla. On this job, he assisted in the construction of the Cosden refinery in Big Spring.

Later he worked for the contracting firm at Houston and Fort Arthur, then joined the Gulf Refinery force at Sweetwater. He was with that concern for about three years before accepting a place with Cosden.

Reed worked in the yard for a short time and then was an insulator for several years. In June, 1948, he started welding and now is a welder No. 1.

Reed married Miss Violet Barryhill of Fort Worth on July 29, 1939, and they have one son. The Reeds live at 1205 Nolan. Reed is a member of the Church of Christ.



H. L. WEEKS

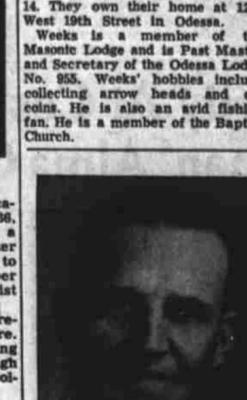
A twenty-five year employe of Cosden Petroleum Corporation is

H. L. Weeks, Weeks' employment with Cosden dates to August 20, 1928. Before being employed by Cosden he worked for the Montgomery Drilling Company in Eldorado, Ark., for Imperial Oil Company in Eldorado, and the Reasee-Allen in Amarillo.

Weeks was hired in the production department as a roustabout. He was later made Pumper and then Production Foreman of the leases at Penwell. In 1948 Weeks was made Production Superintendent for the Western Division of the Production Department. He has been on the leases at Penwell since 1931, and has been in charge of the wells, either as pumper or Foreman since 1936.

Weeks was born in Warren, Ark., and attended the public schools there. He came to Texas in 1926. He was married to Miss Betty Calder of Odessa on Jan. 21, 1936. They have one child, Donald Ray, 14. They own their home at 1204 West 19th Street in Odessa.

Weeks is a member of the Masonic Lodge and is Past Master and Secretary of the Odessa Lodge No. 955. Weeks' hobbies include collecting arrow heads and old coins. He is also an avid fishing fan. He is a member of the Baptist Church.



GEORGE PHILLIPS

George Phillips, who is a 25-year man with Cosden, is one of the company's best and most trusted "pump doctors."

But before he joined Cosden he graduated from high school at Kearsen in Navarro County then went to Kansas City for an intensive course at Bab's Auto and Tractor School. Then he put his trade to use back home in a garage.

Seven years followed during which he married his school-days sweetheart, Nora Lane, and started on his career as a spinner of yarns.

Now he has an unlimited supply of fishing tales and it's not just a few people who have been kept awake as he spun yarn after yarn. In 1941 the Phillipses built their home at 1205 Wood. They hope that one day they can retire to a certain lakeside retreat and finish out their days fishing.

If you ask about his hobby George will show you a bait box holding 116 plugs, thirty-odd which he made himself. He is also an amateur tinsmith and his half-way walls prove it.

For years this No. 1 mechanic at Cosden has prepared breakfast for himself and his wife—the only variety in the menu of bacon, eggs and toast being sometimes ham or sausage.

Mr. Phillips' first association with Cosden was in Oklahoma on a wildcatting operation. He had been working in the Spindletop oil field near Beaumont prior to that. Mr. Chapin worked on the first well to pump oil in Texas.

A native of Marietta, Ohio, he was schooled there and attended Marietta College for two years. In 1896 he moved to Toledo and saw service in the Spanish-American War. During World War I he saw service with the Canadian forces, later transferring to the British services and served in Italy and France. His association with Cosden in Big Spring started in 1928 when he helped build the first still. Until his retirement he was continuously employed by Cosden.



J. A. HOFFMAN

They're not "old men" by any manner, but J. A. Hoffman and Albert L. Souders are the only retired members of the Cosden family.

Hoffman, a native of London, England, came to the United States when he was still a baby. He was reared in Big Spring and received his schooling here. Working on a ranch as a youth, he joined the Texas & Pacific Railway Company in 1907 and put in 15 years as a railroadman. Part of that time he was a locomotive engineer on the Big Spring-El Paso run, and he still holds his B.L.F.&E. for 36 years.

From 1927-31, he was employed by the Pan-American Oil Company, and on July 24, 1933 went to work for Cosden in the tank farm department. Mr. Hoffman retired from service on Feb. 1, 1954.

Al Souders' connection with Cos-



HENRY J. COVERT

Henry J. Covert attended three colleges before going into the oil industry. After finishing high school in Big Spring he went to Greenville Junior College, McMurry College and the Texas College of Mines.

After his college days Covert worked in the oil fields for a time as a tool dresser, then owned and operated a body shop for about two years.

He joined Cosden in 1933 in the rigging gang of the construction department. In June 1934 he was transferred to the pumping and treating department. Later he became foreman of the asphalt department.

He is a native Big Springer and married a Big Spring girl, Miss Theo Fuller. They have two children, Jewel and James.



LOUIS CHAPIN

First man to retire under Cosden Petroleum Corporation's company supported pension plan was the late Louis C. Chapin.

He died March 25, 1953, a little more than a year after he had taken his retirement in Nov. 1, 1951.

Mr. Chapin's first association with Cosden was in Oklahoma on a wildcatting operation. He had been working in the Spindletop oil field near Beaumont prior to that. Mr. Chapin worked on the first well to pump oil in Texas.

A native of Marietta, Ohio, he was schooled there and attended Marietta College for two years. In 1896 he moved to Toledo and saw service in the Spanish-American War. During World War I he saw service with the Canadian forces, later transferring to the British services and served in Italy and France. His association with Cosden in Big Spring started in 1928 when he helped build the first still. Until his retirement he was continuously employed by Cosden.

Hoffman, Souders Rate As Company's Retired Workers



A. L. SOUDERS

Souders dates back to May 14, 1889. A Missourian, he was born at Oak Hill where he went to school. Later he became a street car conductor in St. Louis for three years. After his marriage in 1905, he moved to Ponca City, Okla., to farm. Subsequently he engaged in the restaurant business.

Six years later he gave this up to join Mariand Refining Company, a concern which later became Continental Oil. Two years later he came to Big Spring because he knew Cosden's superintendent and went to work for him in the maintenance department.

Eventually he settled down in the machine shop and because the No. 1 pipe man's wife, before he retired July 5, 1953, he said he had thinned enough pipe to lay a pipeline around the world.

Company Has Encouraged Talent, Cultural Events

There is a human side to Cosden Petroleum which not only manifests itself among its family but in community affairs as well. On several occasions, Cosden has sponsored concerts to present promising young artists, or otherwise has encouraged in the development of their talents. Mrs. Cornelia Frazier Barlow, who sang Friday evening at the dinner honoring R. L. Tollett, president, upon his 15 years with Cosden, was encouraged through the concert medium and as a member of the summer staff of Cosden. Jimmie Lee Pitts, in whom many saw great possibilities as a singer, drew help one way and another through Cosden in pursuance of her vocal development and career. As in many instances, Tollett was a personal supporter of the efforts. Last spring Larry Evans, who has been making rapid strides as a rising young pianist, was presented here in concert by Cosden. Not long after, Cosden joined hands with Howard County Junior

College in presenting the outstanding Cisco Junior College choir in concert. Tollett has not stinted personally, nor has Cosden, in backing the cultural forces of the community. At a crucial juncture many years ago when women were trying to establish an organization to bring good entertainment to Big Spring, Tollett personally underwrote a large block of tickets. This provided the impetus which resulted in the formation of the Big Spring Town Hall Association, later the Big Spring Civic Arts Association and its successor the Big Spring Concert Association. Scholarships, particularly those encouraging language study as a foundation for careers in the sciences, were posted by Cosden at Howard County Junior College. Cosden also has supported the college's annual senior day program. The company also has sponsored a Cub pack for many years, and this pack—No. 29—has one of the

outstanding records in the Buffalo Trail Council. Recognizing that financial loss might be incurred in the performance of civic duties, Cosden follows a policy that pays an employee the difference between his venire pay and what he would have earned on the job when selected for jury duty. There is a liberal policy also concerning sick leave, and another for paid leave when death occurs in the family. During summers, sons and daughters of Cosden employees are given jobs in the offices and at the refinery and in the field if they are attending college or have graduated from high school. Typical of how Cosden maintains the human touch is the two instances where an employee died on the job or of job injuries. In one instance, a son was allowed to go to work at the plant and despite his age was advanced as rapidly as he could qualify. In another, the son who worked in a company owned service station, was the best paid service hand in Big Spring.

Audit-Control Dept. Charts Every Cost

How much does it cost to process a barrel of crude oil? How shall these costs be properly distributed? How do Cosden operations compare with similar ones in the industry? Are all the fiscal functions of the company in good order? How about inventories? These and many other questions must be answered constantly by one of the smallest but one of the most sensitive departments of Cosden Petroleum Corporation. It is the auditor and control department. One of the prime functions headed by George Zachariah and his force is internal audit. On a fixed schedule, known only to himself and Zachariah, Louis Carouthers checks into every department of Cosden. Some of these may call for visits once a year, some more often. This department also works with the outside auditors, simplifying their work. A constant stream of reports courses through the department. One of the most vital is that on costs. Formerly copies went only to top management, but now the circulation has been broadened. As a result, operators scan the columns for 20 different process and 18 different service units in increased cost consciousness. Frequently Mrs. Beth Kay translates the statistical information which she compiles into graphs and charts. All the while there are reports to outside agencies, many in industry, on production, processing, etc. At the same time there are many reports which go to the government through agencies such as bureau of mines, tender board, census bureau, etc. If there is a special report that the president needs, the division is charged with the task of whipping it promptly into shape. If there is a contract to be renegotiated, the division follows through. There are several other functions which stem from this department's work, such as maintaining a record on the tables of organization. In short, if you want to know anything about Cosden in graphic, concise fact and figure form, this is the department with a finger on the heartbeat.

Real Authority At Cosden Is 'Lease Woman' Alma Gollnick

Cosden Petroleum Corporation's lease "man" is a woman, the acknowledged authority on history of the company, its senior and perhaps its most beloved employe. She is Mrs. Alma Cleveland Gollnick. In her rich Georgia drawl, as pleasant as a Southern morning, she sometimes protests that her longevity with the company makes her sound like a matriarch. Actually, she began her association with the late Joshua S. Cosden when she was just out of high school.



ALMA GOLLNICK

was in Kansas and South Dakota, and ultimately her appointment as acting head of the department was made permanent. She yielded the secretary's post to Blanche Young. There were lean days during the two receiverships, and Mrs. Gollnick worked once in the purchasing department and later in the tax and insurance division. Always, she kept her hands on leasing activities. When R. L. Tollett became secretary of Cosden Petroleum in 1939, Mrs. Gollnick became his secretary as well as handling the leasing activities. She came to Big Spring with transfer of the general headquarters in 1940 but left her post in 1944 to marry H. R. (Jack) Gollnick in Fort Worth. He died suddenly in 1947 and not long afterwards she was back at her desk in the leasing department. She had never severed connections, for the company had maintained her on the payroll to conduct quarterly audits of the lease records. She was made an assistant secretary of the company.

Born to Mr. and Mrs. Pitman B. Cleveland in LaGrange, Ga., she was left motherless at the age of 18 months. Her father and other relatives reared her in the strict code of the day and endowed her with all the gentle graces of a Southern lady. An aunt, who lived in Fort Worth, had repeatedly asked her to come live with her, but Mr. Cleveland would consent to nothing more than a visit. Her visit was so pleasant that she soon discovered that her money for the return trip was exhausted, so she hit upon the idea of working until she earned enough to replenish her funds. There were some temporary jobs, and in a round-about way she learned Josh Cosden needed a girl. She applied for the post just before Christmas in 1925 and was told to report Jan. 2, 1926. Thus, began a long association that has kept her close to the top level of management of Cosden company through its ups and downs and ups. She was not aware, but soon learned, that her boss was a fabulous character in the world of petroleum. Through the intervening years until he stepped out of the company and died in 1940, she had great admiration for him. "Oh, he had a quick mind," she remembered. "They said he could talk pretty straight to men in the field, but in the office he had a drawing room manner. He had such

a soft voice. 'Would you please get me this file' and 'Thank you very much.' " There were only five men in the organization in addition to her. Cosden himself was busy trading and time, she was assigned to help in the lease department. Soon she was helping to write leases, assignments, lease records. She took books home at night to study oil and gas law along with real and property law. Although she makes no pretense at legal knowledge, several lawyers have paid her the compliment of saying she is far more expert in oil and gas leases than most attorneys. Mrs. Gollnick can remember vividly the incident that started game Josh Cosden on the comeback trail. He had secured some leases in Brown County and turned them to the Prairie Oil Company for \$975,000. She saw the check and never forgot it. With this Cosden went back East and soon had organized Cosden Oil Company. Cosden still insisted that she be his private secretary, although during his absences to New York and other points, she continued her connection with the lease department. The lease man was obliged to spend a year in Florida blocking acreage for a test. There were long periods of absence when he

She maintains a complete file of maps of all leases owned by Cosden along with supporting documents. She processes all division orders. Mrs. Gollnick's knowledge of company transactions and history is almost encyclopaedic. Whenever the records do not readily reflect the answer to a question, the stock recourse is to "ask Alma." It was therefore appropriate that Cosden should inaugurate its plan of honoring its 25-year veterans by staging a gala dinner in May 1951 to pay tribute to her. President Tollett climaxed it by an announcement he had made to her casually several months before: "Alma, we're going to send you to Europe." No one ever enjoyed a trip more, but her happiest moment came when she was back behind her desk in the leasing department directing its activities and sometime easing out into the field now and then to make a trade herself. Selection of symbolic state birds is a modern custom started by Kentucky when it picked the Cardinal in 1926, says the National Geographic Society.

Water Supply Is Assured By Use Of City Effluent

One resource which Cosden has taken pains to arrange in good supply is water. For process and cooling purposes, Cosden utilizes the treated effluent from the city disposal plant, virtually eliminating all its hardness. The supply is ample for all needs at present. However, with an eye to the future, Cosden shared in a 10-inch line which Cabot Carbon Company, just on the east side of Cosden, laid to its plant from the Colorado River Municipal Water District. Thus, if Cosden ever needs great amounts of raw lake water, it will be readily available. Three types of fuel are used to fire the "heaters" for the various petroleum processing units at the Cosden refinery. Bulk of the fuel used at the refinery is natural gas. However, Cosden also burns "waste gases" from the stills and other units. And at times when an excess of fuel oil exists, it also is used in the heaters.

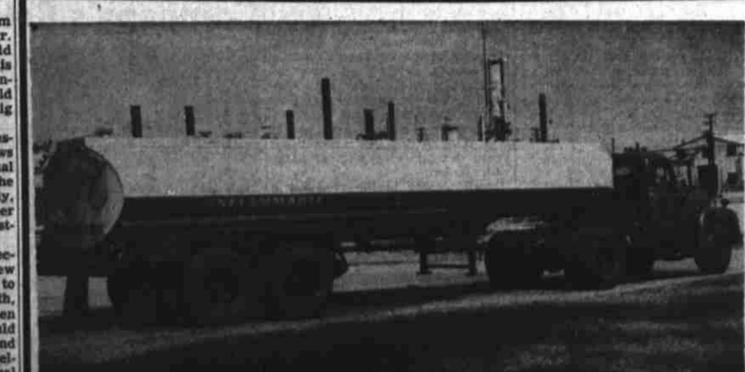
Directors Meet 10 Times Year

Directors of Cosden Petroleum Corporation meet 10 times a year. Nine of these meetings are held in New York, the other—which is the meeting which follows the annual stockholders session—is held at company headquarters in Big Spring. Directors skip the monthly session in August because it follows hard on the heels of the annual meeting and because it is at the height of vacation time. Similarly, there is no meeting in December when everyone is busy with Christmas. Prospects are that all the directors except James L. Carey, New York, who recently submitted to surgery, and Benjamin H. Roth, also of New York, who has been in ill health, will attend. This would include Thomas I. Sheridan and Leo M. O'Neil of New York, Nelson Phillips Jr., Dallas, general counsel, in addition to R. L. Tollett, Marvin Miller and A. V. Karcher of Big Spring. The board, of course, will go into session after the stockholders meeting has been held and a board meeting for the year. In turn, the board will name officers and attend to such other business as might be at hand.

Company Supplies Part Of Additive

That "ECP" you see advertised as a gasoline is tri-cresyl phosphate. Cosden supplies some of the material that goes into the additive. Cresylic acid was one of the first petrochemicals produced in the Big Spring refinery.

The "Black House" at Gullford, Conn., was painted black by a French seaman when he learned of the coronation of Louis XVI.



We Salute COSDEN ON THEIR SILVER ANNIVERSARY

We are indeed proud that Cosden has chosen Gorbett semi-trailer tanks to help them serve their customers with the utmost efficiency and economy.



2548 NE 28th Street Fort Worth, Texas

To The COSDEN PETROLEUM CORPORATION

On Its **SILVER ANNIVERSARY** We Offer Our

Best Wishes!

The progress that has been made in the petroleum industry by Cosden Petroleum Corporation is a feat that everyone in West Texas is proud of. Cosden is an asset to our community . . . and the men and women who are employed by Cosden are among our very best citizens . . .



3rd at Main

Dial 4-6371

Big Spring Daily Herald

COSDEN EDITION BIG SPRING, TEXAS, SUNDAY, JULY 18, 1954 COSDEN EDITION

No Community Affair Without Cosden Help

Although it is made up of more than 2,500 stockholders, Cosden Petroleum Corporation is accounted as one of the foremost citizens of Big Spring and West Texas. Legion are the examples of how this corporation participated actively in community affairs, but none is more typical than that by which it came into the city's school district.

Located three miles east of town, Cosden's refinery was well outside the then existing boundaries of the Big Spring Independent School District. However, virtually all of the families which worked at Cosden resided in Big Spring. R. L. Tollett, Cosden president, was a member of the school board and he was interested in the problem. Petitions were circulated and an election ratified the transfer of territory into the Big Spring district. Tollett had felt that the company had an obligation of citizen-

ship to aid in providing as adequate educational facilities as possible for the children of its employees. This step proved to be one of the turning points for the school system.

No concern has participated so liberally as Cosden in support of welfare and character - building agencies. In fact, Tollett was president of the Community Chest, when it was incorporated and participated in its conversion into the United Fund. Generosity of the company habitually has been met with pace-setting support by Cosden employees.

Tollett personally invested several thousand dollars in fielding a professional baseball team last year, and despite his own losses, was a leader in efforts to bring it back this year. Cosden had aided in the program, having special nights at which fans were guests of the company. Products were effectively advertised at these occasions, one of which recently drew 3,000 people, the largest number to ever see a baseball game here.

Cosden has backed high school football as a radio sponsor. Numbers of community affairs have found Cosden supporting through program and similar advertising, or in posting products as prizes.

It has fielded teams in city leagues, has sponsored baseball, softball, and bowling units. In most of the 4-H Livestock Sales, Cosden has bought in the grandchampion steer for the top price, and several times turned round and gave the meat to the Boy Scouts for their annual Round Up barbecue. Similarly, Cosden always has had displays at the Howard County Fair Association. Recently, Cosden posted prizes for all winners of first heats in the Soap Box Derby.

There are many more instances in which the company has stepped forward in the role of good citizen—such as encouraging jury duty, voting, participation in community affairs. Hence, it is only natural that if individuals were called upon to nominate outstanding citizens, a corporation—Cosden—would be right up in the top of the list.



JOSHUA S. COSDEN JR.

Josh Cosden Jr. Is Manager At Denver

Another Cosden is now in charge of one division of the Cosden Petroleum Corporation.

He is Joshua S. Cosden Jr., youngest son of the founder of the Cosden Corporation.

Young Cosden now is manager of Cosden's Rocky Mountain office, in Denver, Colo. He was to be in Big Spring this weekend in connection with the observance of the 25th anniversary of the company founded by his father.

Josh Cosden Jr. has been manager of Cosden's Rocky Mountain division since the fall of 1952. This is the second time he has been in

the employ of the company his father established.

The Rocky Mountain manager started with Cosden in the summer of 1934, working in various capacities at the Big Spring refinery.

In 1936, he moved to Wynnewood, Okla., where he held jobs in various capacities with the Cocco Oil Company refinery, another facility started by his father. In the fall of 1940, Josh became president of the company, a post which he filled until he entered the Marine Corps as a private in the fall of 1942.

Just prior to entering the service, young Cosden was instrumental in the construction of a \$12,000,000 government-sponsored, aviation gasoline refinery at Duncan, Okla.

After three and a half years in uniform—18 months of which was spent in the southwest Pacific—Cosden was discharged as a second lieutenant.

The Wynnewood refinery having been sold during the war, Josh Cosden Jr. became president of the Reiter-Foster Oil Company, with offices in New York City. He remained in that position until 1953 when he rejoined the Cosden Petroleum Corporation.

ON ROBERTS LEASE

Water Flood Work Boosts Production

Oil production from Cosden's lease in the Howard-Glasscock field has been increased considerably as a result of a water flood program being carried out by another firm.

The 19 wells which Cosden has on its Royal-Roberts lease now produce about 684 barrels daily. Before the water flood program these same wells yielded only around 460 barrels daily.

The water flood program began last January, and oil production has been increasing steadily since. Actually Cosden did not initiate the water flood program and is involved in it simply because the corporation has a half interest in the lease. Royal Oil Company operates the lease and agreed to the secondary recovery program, which was started by Sunray.

At present there are four water "imput" wells along the joint line between the Sunray lease and the Royal-Cosden lease. There is another water "imput" well along the line between Phillips' lease and the Royal-Cosden lease.

These four wells pump water into the producing sand, forcing the oil out of the producing wells in greater quantity.

Only three wells out of Cosden's 19 have been affected, according to R. W. Thompson, production

vice president. These wells are those closest to the water injection points.

Thompson pointed out that three additional wells are now being drilled on the lease to reap the full benefit of the flood.

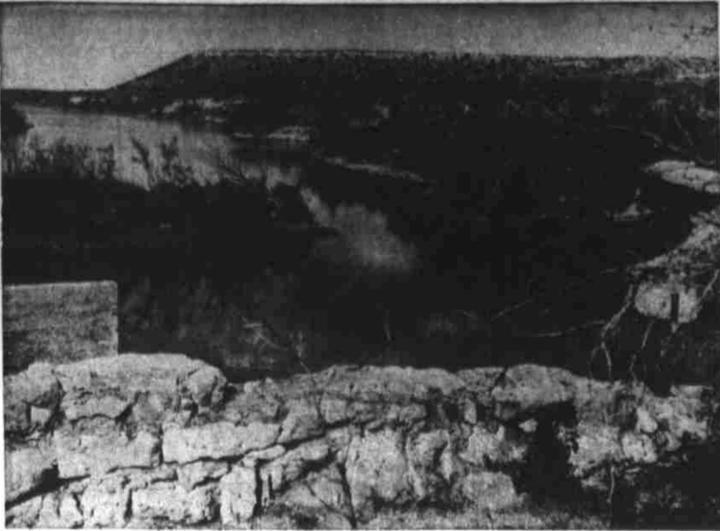
The effect of the water flood program has been terrific, Thompson said, and the results have been entirely satisfactory. Cosden, being a non-operating partner in the lease, has been able to sit back and reap the benefit without any work up until now.

To show the speed with which the water flood project reacted, production had risen from 460 to 684 barrels between January and May. By July the total production daily had reached 684 barrels daily. Additional climbs are expected.

Product For Arms

Most of the toluene from the Cosden BTX plant goes into munitions.

Bulk of the product processed here is shipped directly to the Joliet (Ill.) Ordnance Works where it is used in the manufacture of explosives—specifically, tri-nitro toluene, or TNT.



Where History Pivoted, Cosden To Settle

Cosden employees, who make up the Big Spring Hunting & Fishing Club, will settle down soon to building a lodge on the shores of a small lake just south of Big Spring. In the foreground, just below the rock retainer, is the historic spring from whence the city took its name. In the deep background at left the employees will erect their clubhouse. The spring area, whence came buffalo and Indians a century ago before buffalo hunters and ranchers pushed them back, has been set aside by Cosden as "Pioneer Park," dedicated as a historical shrine.

Recreational Program Builds Employee Relations At Cosden

Cosden Petroleum Corporation's extensive recreation program has done a great deal to build up its unusually good employee relations. Not only does Cosden field baseball and bowling teams, but it also has lodges for employees on three area lakes. Periodic parties are held for long time employees and Christmas parties are routine.

The lake cabins are owned by the Big Spring Hunting and Fishing Club, an organization made up of Cosden employees. The club is supported by proceeds from the sale of Cosden scrap and from money received in vending machines on the refinery grounds. Cosden also contributes \$1,500 monthly to the club to assure that recreation will be available for the employees. The employees themselves pay no dues.

The lodges are at Fort Phantom Lake near Abilene, Possum Kingdom Lake near Palo Pinto, and at Colorado City Lake. Any employee of Cosden wishing

to go to the lakes can make use of the Hunting and Fishing Club facilities. Reservations are made through Personnel Manager Jack Y. Smith.

One cabin and a boat dock, valued at about \$9,788, is owned at the Fort Phantom Lake near Abilene. Four cabins valued at \$15,000 are owned at the Colorado City Lake, and two are leased at Possum Kingdom. All lodge facilities are valued at about \$30,000.

Another recreational area is owned by the Hunting and Fishing Club just south of Big Spring on the old T&P Lake. A large club house will be built there in the near future.

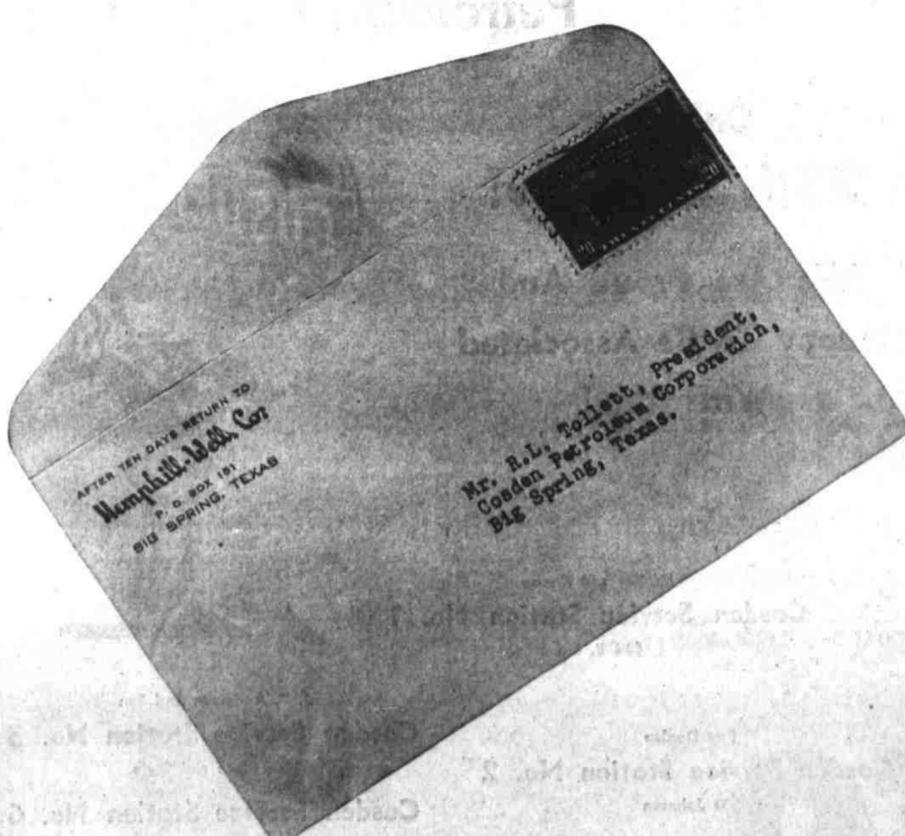
Cosden purchases uniforms for the baseball and softball teams organized among its employees. Each shift has a team, and they play an intramural schedule. Each year the corporation spon-

sors a bowling team to compete in the city league. Here again the uniforms are purchased by Cosden.

Smith points out that any time employees want to try some program of recreation, they are given the chance. Approximately 87 per cent of the requests are filled, he explains. Only when such a program would be detrimental to others employed by Cosden is it turned down.

Christmas parties used to be held for all employees, but for the past few years Cosden officials have encouraged individual parties. One such party is held annually for the office force, and several of the sections have Christmas get-togethers.

Every 25-year employee is honored at a party and presented a special Cosden pin. The party is usually held on the exact anniversary date, if possible.



Hemphill-Wells Co.
(INCORPORATED)
BIG SPRING, TEXAS
July 9, 1954

Mr. R.L. Tollett and all the Folks at Cosden:
Cosden Petroleum Corporation,
Big Spring, Texas.

Dear Raymond:

There would be no way to write a success story about Big Spring or any of its wonderful achievements in the last 25 years, without reserving a big shining chapter for the contributions of the Cosden Petroleum Corporation and the people who make it successful.

For there hasn't been a worthwhile program accomplished in our community in all these years in which the folks at Cosden were not in the forefront...contributing not only their time and money, but also honest, sincere leadership and intelligence.

We want you to know that these efforts are recognized and that we are deeply grateful for them. We recognize, too, a splendid town here...and it is because of people like you who help make it so.

And certainly from a personal standpoint we are most appreciative of the fine relationship that has been ours with Cosden people. For the privilege of gaining their friendship and having it grow and strengthen through the years is responsible, to a large extent, for the success of our own business.

And so, for these things...your contributions, your civic leadership, your public conscientiousness, your helpfulness toward us all...we are pleased no end to be able to wish you a genuine Happy Birthday, and many, many Happy Returns.

Sincerely,
HEMPHILL-WELLS CO.
Louis H. Price
Louis H. Price,
Vice President

LHP/egh

Hemphill-Wells Co.
"Big Spring's Favorite Department Store"



Busy Operators

Three telephone operators handle the flood of calls to Cosden each day. They also must place all long distance calls made by Cosden personnel. Shown at the PBX switchboard in the Permian Building are Evelyn Arnold and Nellene Rhea White. Chief operator is Anna Mae Berry.

HUNDREDS OF CALLS PBX Nerve Center Of Communications

The 'phones ring constantly at the Cosden Petroleum Corporation. Two telephone operators at Cosden's PBX switchboard have to stay on their toes to stay abreast of the tide of incoming calls. They also must place all long distance calls from the refinery and from the company's general offices in the Permian Building.

The PBX operators place up to 100 long distance calls per day, and receive about the same number of incoming messages. Local calls placed through the PBX run into the hundreds daily. Cosden officials and other personnel dial their own local calls, of course, but every call to either the refinery or the Permian offices must be answered by the operators.

The petroleum company requires a great many telephones to carry on its operations with the dispatch afforded through almost-instantaneous communication from one office to another, or from one section of the refinery to the offices or elsewhere in the refinery.

There are 140 stations on the Cosden network—60 telephones in the Permian Building and 80 at the refinery. Actually, the Cosden communications hook-up amounts to a private telephone system, with access, of course to "outside" facilities. Through the inter-office telephone system workers can dial any of the 140 instruments in the offices or at the refinery. The Cosden dial system utilizes one and two-digit telephone numbers which are handled by the private board exchange without the necessity of the calls being channelled through the phone company's regular dial switching exchange.

The inter-office calls run into the thousands each day, and no attempt is made to keep track of the number.

Cosden Petroleum Corporation is

Sitchler With Traffic Dept. Since 1929



J. D. SITCHLER

It was almost a Christmas transaction between Cosden Petroleum Corporation and J. D. Sitchler, 25 years ago.

It was on December 26, 1929 that Sitchler went on the Cosden payroll and he has been an associate in the company's traffic department ever since.

He started as a clerk in the department, became secretary to the traffic manager and then car accountant. In a sentence, his duties consist of handling much of the detail work in connection with the operation of Cosden's fleet of 600 tank cars. These proved a vital link in the transportation of badly-needed petroleum products in wartime, and still are a major factor in the distribution of Cosden's output throughout the nation.

Sitchler spent all his boyhood in Fort Worth where he was graduated from Polytechnic High. For three years he was a stock clerk with Armour and Co. before joining Cosden.

Sitchler was married to Miss Florence E. Hartman of St. Louis, Mo., in 1928. Sitchler's hobby is raising horses.

Tax Bill Runs Over \$1,000 Every Hour

A thousand dollars an hour—24 hours a day and 365 days a year. That's the rate at which Cosden Petroleum Corporation pays taxes. The annual tax bill runs to nearly \$9,000,000.

There are gasoline taxes (state and federal), butane taxes, lube

oil taxes, pipe line transportation taxes, ad valorem taxes, unemployment taxes (state and federal), franchises (Texas and Delaware), income taxes, and more taxes.

Cosden's total tax bill during the last fiscal year was \$8,913,217.85. That's a whopping \$24,430 a day. The Texas gasoline tax accounted for more than 60 per cent of the total. Cosden paid \$5,825,530.52 on this.

The federal gasoline tax amounted to \$1,131,106.54. The federal income tax amounted to an estimated \$1,417,000.

The tax on pipe line transportation cost Cosden \$220,883.86. New Mexico gasoline and butane taxes amounted to \$104,221.78.

Ad valorem taxes paid by Cosden during the fiscal year totaled \$127,096.95. Of the aggregate property tax, \$86,758.80 was paid within Howard County to the county, state and school districts.

Other taxes paid by Cosden Petroleum Corporation during the 12-month period: Texas butane tax \$6,243.20; federal lube oil tax \$17,614.48; federal old age benefit \$36,082; Texas unemployment tax \$1,801.97; federal unemployment \$5,138.25; Texas franchise \$17,169; and Delaware franchise \$3,327.50.

In addition, Cosden collects and pays to the federal government the income of employees. The company also must collect FOAB payments from its workers and transmit these funds to the federal government.

HEAVY USE OF LAMP GLOBES

Approximately 20,000 lamps are used per year at Cosden refinery. It is estimated by James Edwards, warehouseman.

Edwards says the huge use results from so many lights being burned on the refinery units. Most of these burn anywhere from 10 to 12 hours nightly.

By actual count the use last year included 3,684 lamps of the 100 watt size used, 3,750 of the 200 watt lamps, 300 of the 300 watt lamps, and 100 of the 1,000 watt lamps. Other bulbs, about 12,000, were of the 60 and 50 watt sizes. Some fluorescent lamps were also used.

Has Witnessed Big Growth At Cosden

A. V. Karcher has witnessed a tremendous growth during the 14 years he has been with Cosden Petroleum Corporation.

When Karcher, secretary and treasurer, joined Cosden in 1940, the entire office force consisted of but 38 persons. Now, Karcher has 40 workers on his staff as treasurer.

Annual volume of business has increased from \$6,000,000 to \$45,000,000 during the 14 years.

Employees Added In Other Cosden Units

Expansion of the Cosden Petroleum Corporation to Southwest Texas and the Rocky Mountain region will mean the employment of additional supervisory personnel.

A new production manager-engineer will be secured for the Cosden wells in Live Oak and Bee Counties. A similar position will be filled in the Denver office.

Cosden already has some personnel in Denver and at a new office in Corpus Christi.

Barrel Of Oil 'Split Up' By Accountants

A barrel of crude oil goes a long way in the accounting department at Cosden.

Accountants can spread the barrel of crude out to help cover its pro rata share of the expense involved in its discovery, production, transportation to the refinery, and the refining process itself.

Part of the barrel of oil goes to help pay for the lease. Another portion is applied to the cost of seismic and other exploratory work. Still another part helps pay rentals, and other portions are applied to the costs of drilling, logging, acidizing, completing and casing the well.

But the barrel has to go even further. It pays for its own pumping, storage and shipping, and for its own processing.

Actually, Cosden's accountants don't divide a barrel of crude oil into the infinitesimal fractions of a dollar that would be necessary if each individual barrel were distributed according to the various expenses it entailed.

However, cost of the various products made from the crude is broken down into numerous factors. For example, records in the accounting department might show that for each barrel of gasoline turned out at the refinery, the cost of processing included .3 cents for labor, .6 for storage, etc., until the value of the product is balanced by the total of the scores of expenses involved in its production.

Installations At Seven Other Points

Cosden Petroleum Corporation maintains offices at other installations in seven cities, not including Big Spring.

Division offices are in Denver, Colo., and Corpus Christi. A land office is situated in Midland. Another office is maintained in Dallas by Cosden's general counsel and a vice president of the company, Nelson Phillips.

Products terminals are operated by the company in Abilene, Sweetwater and Orme (Arlington).

Glasscock Producers

Only two Glasscock County producers are owned by Cosden Petroleum Corporation, and they are on the Vivian Hanson lease in the Spraberry Trend area. They produce a total of 97 barrels of oil daily, and gravity is 33 degrees.

Our
Sincere
Congratulations

On Your
25th
ANNIVERSARY

**COSDEN
PETROLEUM
CORPORATION**

**A. K. LEBKOWSKY
& SON
WHOLESALE**



309 E. 1st

Dial 4-6811



Our
Best
Wishes
To You
On Your



25th Birthday!

Coors

D.K.T. CO.

America's Fine
Light Beer

Dial 4-4596



to the
**COSDEN
Petroleum Corporation**

On Your
25th Birthday!
We Are Proud And
Happy To Be Associated
With You!



McNew and Knoop
Cosden Service Station No. 1
804 E. 3rd

Foy Dunlap
Cosden Service Station No. 2
200 Johnson

McCarty and Henderson
Cosden Service Station No. 3
1901 Gregg

Gene H. Fiewellen
Cosden Service Station No. 4
210 W. 2nd St.

J. T. Anderson and Son
Cosden Service Station No. 5
11th Place and State

Cosden Service Station No. 6
812 W. 3rd

Howard Shaffer
Cosden Service Station No. 7
400 Gregg

Earl Piew
Cosden Service Station
East Highway 80



They Represent The Laboring Force

Some of the men above, all employees at Cosden Refinery, are the newly elected officers of Local 826 of the International Union of Operating Engineers. Those in the back row are, left to right: J. C. Humphries, organizer; Dan Greenwood, treasurer; Alfred Goodson, business agent; and Palmer Smith, conductor. Seated left to right are: Paul Soldan, outgoing president; Milton Brown, recording secretary; Robert D. Kiser, vice-president; and John E. Brown, financial secre-

tary. The new president, William E. Pate, was not present for the picture. Other new officers include G. C. Griffice, guard; J. F. Gibson, auditor; and Ott Flynt, trustee. The union which these men head up has as its members all the operating and maintenance employees of the refinery and marketing facilities of Cosden Petroleum Corporation.

Union Record During 10 Years Harmonious

More than 10 years has elapsed since Local 826 of the International Union of Operating Engineers inked the first labor contract with Cosden Petroleum Corporation. And during this time there has never been a work stoppage at the refinery.

In fact a strike threat has never been made by union members in contract conferences, said Jack Y. Smith, Cosden personnel manager. The first contract between the union and the corporation was signed on Sept. 1, 1943. Since that time there have been 11 additional contract renewals and 22 conferences for wage reviews.

Each contract agreement is for one year, and wage conferences are held every six months. Though a number of the conferences have contained heated discussions, signing of a new contract has never extended past the anniversary date, Smith said.

An employee committee repre-

sents the union in these conferences. The corporation is represented by R. L. Tollett, president, and Smith.

Most of the union members are employees of Cosden, though quite a few members work for other industries in and around Big Spring. Membership is in excess of 400, with 392 being operating and maintenance employees at the refinery.

Each year the union members elect officers to head their organization. Bill Pate, an operator at the refinery, is this year's president. Robert Kiser, a pipefitter, is vice president.

Other officers include Edward Brown (tester), financial secretary; Milton Brown (tester), recording secretary; Dan Greenwood (operator), treasurer; G. C. Griffice Sr. (electrician), guard; Palmer Smith (electrician), conductor; J. C. Humphries (gang pusher), organizer; Tunney Good-

son (electrician), business agent; J. F. Gibson, auditor; and Ott Flynt (pipefitter), trustee.

Since the first union contract was made the pay scale at Cosden has for all practical purposes doubled. A yardman in early 1944 received 74 cents an hour. On the last contract signed, the salary scale called for \$1.74 per hour. Base pay in the various crafts at the refinery in 1944 was \$1.15 an hour. It is now \$2.30, exactly double.

The IUOE local was formed here after Tollett called a mass meeting of refinery employees one afternoon in 1943. He told those assembled that he personally would welcome a union at Cosden if the employees would pick a good one and get a good representative.

There had already been talk of forming a union, and Tollett's speech served to accelerate action. It was only a short time later

that the local was formed and the first contract signed.

Relations between the union and the corporation have always been at a high level. The difference in salary scale through the years shows that union members are being benefited, and corporation officials feel that peak production depends on contented employees, Smith pointed out.

Quite a bit of comment has been made by union and company officials from other cities concerning the large signs advertising Local 826 which are on the Cosden crude and product tanks. These signs are made available to the union by management, and Big Spring is one of the few places in the country where such signs can be found on corporation property, it was pointed out.

Local 826 has periodically made contributions to welfare funds and only recently purchased an iron lung which was placed in a Big Spring fire station for use in emergency cases in the community.

The union is also setting up a fund at present to provide money for members who might become destitute. Each member contributes a small amount each month to the fund.

Geology Department Seeks Oil With Use Of Scientific Tools

Cosden's geology department goes to all exploration from just about every angle possible.

Chief geologist is J. S. Kelly. He is assisted by Eli McComb and George H. O'Brien Jr., junior geologists; Dave Hopkins, subsurface geologist, and George Larson, chief geophysicist who holds a master's degree in geology and has 15 years experience.

The geology department operates its own laboratory, in the Permian Building, for the examination of geological samples — cuttings, cores, etc., from oil wells.

Hopkins, working from drilling reports showing materials encountered at various depths, currently is preparing subsurface maps of every horizon in Howard County and the surrounding area. These maps show underground formations almost as if they were graphs of surface terrain and serve to guide geologists in the pin-pointing of areas likely to produce oil.

Larson's 14-man seismographic crew also is "shooting" the entire county with new seismic equipment, purchased this year, as an-

other means of mapping subsurface structures.

Precise measurement of earth tremors, set off by explosives in "shot holes," and the time required for the impulses to reach various underground strata and return to the surface, discloses depth and variations of the various formations — oil producing or otherwise.

Also associated with the geology department is Kimball Guthrie, who works as an oil "scout," keeping his finger on the pulse of operations throughout the area.

Cosden's geology department also relies on geochemical, gravity meter and magnetic analyses and surface geological studies in its quest for oil. This work is secured on contract, however.

Geochemical tests involve the analysis of minute quantities of ethane and methane in soil samples taken from only a few feet below the earth's surface.

Certain quantities of the gases, in relation to quantities found in other soil samples taken from the area surrounding a potentially-oil-bearing formation, have proved to

be indicative of the presence—or absence—of petroleum.

Gravity meter and magnetic readings are used in a similar manner. Surface geology is similar to subsurface geology, with outcroppings of various formations being used instead of drilling reports in

the mapping of the subterranean structures.

More simply, whereas the subsurface geologist establishes his "points" on the basis of the depth at which various formations were found in drilling, the surface geologist gets his map positions from the elevations at which the formations "outcrop" or break through the surface.

Cosden ranks as one of the largest inland refineries in the country, a distinction which it not only has held over the years but has strengthened steadily.

We're Happy To Offer

Best Wishes!

To

COSDEN
PETROLEUM CORP.

On The Occasion Of Its
25th ANNIVERSARY

PRAGER'S
Men's Store

205 MAIN

Happy Anniversary!

to
COSDEN PETROLEUM CORP.

which brings your
car or truck

- Better Engine Performance
- Lower Repair Bills
- Longer Engine Life
- Greater Oil Mileage

through the championship
oil-filtering performance of

CHAMP Oil Filters & Refills

• • • • •

Congratulations!

from

Champion Laboratories, Inc.

Meriden

Connecticut



Cosden

Congratulations to
Petroleum Corporation

On Their 25th Anniversary

We are indeed proud to be associated with such an outstanding organization... proud to supply them with our "Blue Ribbon" Product.



Our Odessa Warehouse
400 W. First St.

OTM CORP.

HOUSTON
1318 Rance St.
Phone CA-7293

ODESSA
400 W. First
Phone 76862

TULSA
P. O. Box 1776
TWX TU-95
Phone 5-5182

NEW ORLEANS
316 Claiborne Towers
Phone
RAYMOND-7721
TULSA-8802

NEW YORK, N. Y.

DALLAS



23,000 Barrels Daily Coming Into Refinery

Cosden Petroleum Corporation's refinery at Big Spring is at present being supplied with approximately 23,000 barrels of crude oil daily.

This oil comes from various pipelines leading into the plant, said R. W. Thompson, vice president in charge of pipelines and production.

About 18,500 barrels of the daily intake at the refinery is sour oil, averaging about 30 degrees gravity. The other 4,500 barrels is sweet oil with the average gravity of 45 degrees.

The sour oil is piped in from shallow leases in the Howard County area. Sweet oil is obtained through batching operations of trunk lines belonging to major companies.

Approximately 12,000 barrels of

sour oil per day is purchased from leases in the Howard-Glasscock field and piped to the refinery in the Cosden Pipe Line Company eight-inch line.

In addition to this 2,800 barrels per day is produced in the Sharon-Ridge 1700 area of Mitchell and Scurry counties and piped to the refinery through a recently constructed four-inch line which is routed via the Iatan-East Howard pump station.

Another 2,000 barrels daily is produced in the Iatan-East Howard and Snyder fields and pumped to the refinery through a dual set of four-inch lines. Some of this oil comes from Coltex Refinery and the east sector of the Howard-Glasscock field, and part comes

from the Magnolia gathering system.

About 700 barrels of sour oil is trucked per day by the pipe line leases in Howard, Glasscock, Sterling and Tom Green counties. There is also some sweet oil trucked into the Cosden Pipe Line Company facilities.

Largest source of sweet oil for the Cosden Pipe Line Company is the Shell and Magnolia trunk lines running east and west across South Howard County. Cosden has connections with these lines and through batching operations obtains about 3,500 barrels per day.

Some 2,500 barrels of the sweet oil comes from the Wilshire (Ellenburger) Field of West Upton County. Another 1,000 barrels per day of sweet oil is obtained from the Benedum (Spraberry) Field of Upton County through batching operations.

A direct line was recently installed by Gulf Pipe Line Company from the Luther Southeast Field, discovered in late 1933, to the refinery. Approximately 1,000 barrels of sweet oil is marketed at the Cosden Refinery daily through this six-inch line.

Actually there are three grades of crude oil used at the Cosden refinery plant. And all are kept segregated, Thompson said.

The oil coming in from the Iatan-East Howard field—which is from Mitchell, Scurry and East Howard producing leases—is routed to specific tanks at the refinery. The sour crude from the Howard-Glasscock field is also segregated in separate tanks, as is the high-gravity oil.

THIS IS GOING BACKWARDS

They're reversing the process for extracting the paraxylene from among the other xylene isomers coming out of the Cosden BTX plant.

Formerly, paraxylene was removed by fractional distillation, which means heating the mixture of isomers to the point where paraxylene vaporized and could be drawn off.

In the new Phillips plant at Cosden, all of the isomers are in the gaseous form and are cooled to the point where paraxylene crystallizes, or becomes a solid. The latter process is called fractional crystallization.

Company Has Five Wells In N. Mexico

Five oil wells are owned by Cosden Petroleum Corporation in Lea County, New Mexico, and they produce a total of 100 barrels of oil daily.

Four of these wells are in the Drinkard pool and the other is in the Paddock field. All are on leases obtained from Edith Butler.

The Paddock field producer is making oil from the Giorietta sand, and the oil has gravity of 38 degrees. The four wells in the Drinkard field produce 75 of the 100 barrels, and the oil is 40 degrees gravity. Production is from the Drinkard formation.

Well In Jack County

A seven-barrel per day producing well is operated by Cosden Petroleum Corporation in the Jack Field of Jack County. The well makes 38 gravity oil and produces from the Dees Atoka sand. Location is on Cosden's W. C. Duncan lease.



Ticklish Job

One of the most tedious jobs in Cosden's vast operations is that of computing freight rates. The man to whom most of this falls is J. T. (Jake) Morgan, who combines an encyclopaedic memory of geography, railroads, bureaus, legal cases, increases, individual road exceptions, etc., to come up with the cost of moving a product from anywhere to anywhere.

Production From Company Wells 4,454 Bbls. Daily

Cosden Petroleum Corporation operates or has interest in oil wells which produce an average of 4,454 barrels of oil per day.

These wells are located on 47 different leases in Texas, Wyoming and New Mexico. The producing leases cover 5,375 acres.

By far the most of Cosden's producing leases are in West Texas, with only eight oil wells operating outside the state.

Thirty of the oil wells are on the 18 leases in which Cosden has only a partial interest. The other 17 wells are wholly owned by the corporation.

Though the oil wells produce around 4,454 barrels of crude per day, Cosden's net share averages only 2,092 per day because of the royalty payments and joint operating shares, according to R. W. Thompson, Cosden vice president in charge of production.

Thompson explained that a few additional wells which have been completed since these figures were compiled will raise this total

Lot Of Work In Handling Credit Cards

Behind the Cosden Courtesy Card issued each three months lies the work of 14 people.

In the customer accounting division, there are 10 girls with widely varying jobs. One handles credit applications, approvals and issues credit cards. Another checks all credit tickets while three post the accounts and payments to the ledgers. At one desk, a woman does nothing but check the remittances that come through the mail while at another the control clerk receives all charges and credits for the accounts receivable. Two clerks are required for billing delivery tickets. The analysis clerk keeps up with open invoices in the wholesale accounts.

Supervisor of the customer accounting division is Ladd Smith. His division is mainly one of service to the customers and to the credit manager, A. Glenn. Glenn approves all credit and terms and maintains an eye on collections. He is assisted by Sue Ratliff.

Residual Oil Meets Carbon Black Needs

The Cosden refinery produces a special type of residual oil for Cabot Carbon Company, which op-

erates a carbon black plant near by. For its operation, Cabot requires a highly-aromatic, low viscosity, low gravity oil. Cosden supplies the firm with an especially-cracked oil, which is known as "Cabot fuel oil."

"what man can imagine man can do"



In frantic haste to reach the westward sea, men scurried across this land never pausing to find fortunes at their feet.

An empire waited.

By the thousands they came and went. Years passed, until at last one man lay down his burden. "This is as far as we go," he said. "We are here."

Still the empire waited.

Others came. Seeing him, they learned that with work, luck, rain, prayer, and great cold courage, they could scrape a livelihood off these forbidding acres. They stayed, and together they built an empire of land and cattle . . . a new American heritage.

Still new horizons beckoned.

It was then that a few Americans began thinking big and bold. They dared invent a horseless carriage and take to the air in sputtering crates that stayed aloft minutes, hours at a time!

With hungry impatience, the sleeping giant woke. We needed men with imagination. We need miracles. We were not kept waiting.

For through the years, good and bad, men had made this land into a shining symbol of enterprise, and beneath their silent grasslands lay treasures beyond the wildest dreams of those who had hurried by. This became the new Mecca, bounded by resurging opportunity.

We at Sivalis proudly congratulate Cosden Petroleum Corporation on its 25th Anniversary, and the men and women of Cosden who have imagination big enough and bold enough to envision—and to build—a great industry.

It is a privilege to work for Cosden and with Cosden in promoting the growth of the oil empire we call the Permian Basin. It is good to know that throughout the ranks of Cosden you will find the imagination to give us even greater things tomorrow.

SIVALIS TANKS, INC.
Odessa, Texas

Our Best Wishes!



**MILLER'S
PIG STAND**

510 E. 3rd

Dial 4-9021

Our Compliments To

COSDEN

PETROLEUM CORPORATION

On Its

25th ANNIVERSARY

The

PERMIAN BUILDING

To The **COSDEN PETROLEUM CORPORATION:**

For The Good You Have Done . . .

● For Your Industry

You have been a pace-setter, contributing much to the development of petroleum refining processes, and improving your own variety of products.

● For Your People

You have been cooperative and helpful toward the many employes on your payroll, have encouraged them to be good citizens, and treated them as such.

● For Your Community

You have been unfailingly the leader in all things beneficial to Big Spring, particularly in adding strength to all endeavors of your Chamber of Commerce.

This is A 25-Year Record To Be Proud Of, And

Cosden Has Our Best Wishes



BIG SPRING

CHAMBER OF COMMERCE

Congratulations COSDEN PETROLEUM CORPORATION

on your

25th Anniversary

Eastman

CHEMICAL PRODUCTS INC.

KINGSPORT, TENNESSEE

Subsidiary of EASTMAN KODAK COMPANY

PRODUCERS OF TENAMENE GASOLINE ADDITIVES

To Cosden Petroleum Corporation...

Big Spring (Texas) Herald, Sun., July 18, 1954

Howdy, Neighbor...

Operation: "Good Neighbor"...

YOU'RE ON THE RIGHT TRACK!

Yes, since its beginning 25 years ago Cosden has been on the right track... a two-way track of service that builds strong companies and strong communities. Cosden has been good for West Texas... and West Texas has provided a fertile field for Cosden's steady growth.

The Cosden story is an excellent example of good neighbors working together, and the Texas and Pacific Railway folks are proud to have a part in that story.

During the past twenty-five years strings of cars have rolled in and out of the Cosden plant. Since Cosden is located on T&P's main line, our railroad has been privileged to serve as a vital artery of commerce for a good neighbor.

We have always tried to justify our neighbors' confidence and support with friendly and cooperative services, and recognizing our future obligations along with our past responsibilities, we are constantly striving to improve all T&P services.

To our good friends at Cosden, our heartiest congratulations on your 25th anniversary. We look forward to serving you for generations to come... effectively and successfully.

TEXAS AND PACIFIC RAILWAY





Cosden's Blacksmith

Pictured above is Cosden Petroleum Corporation's full-time blacksmith, D. C. Stutville. Though a blacksmith is most unusual in this modern era, Stutville has been with Cosden for more than 15 years. He is constantly engaged in repairs of some types and actually manufactures replacement parts and equipment. Stutville is working at his new jet-gas forge in Cosden's new \$130,000 "shops" building.

100 Jobbers Operate Independent Firms

Independent businessmen in the trust sense of the word—that's Cosden jobbers. From Presidio to Amarillo, from Albuquerque to Jacksonville, Texas, about 100 of these wholesale distributors are selling their Cosden products to approximately 400 service stations. Cosden has more jobbers than any other independent refiner in Texas. Among the veteran members of the Cosden jobber family are Paris

Yarbrough of Colorado City, Horace Blocker of Stanton, Hugh Dryer of Lubbock and Royce Henson of Abilene. There is no signed contract between the jobbers and the company. Any time the jobber fancies he is not in harmony with policy or products or just decides that he isn't making enough money, Cosden wants him to feel free to break away. Each jobber can expect of Cosden a credit account carrying service

and an aid in financing expansion. Some jobbers have started out with as little as \$3,000 capital. It isn't necessary for the small operator to own his own transport in order to get gasoline and other products to his warehouse. The company will deliver products to him. Wares may be obtained or delivered from either the refinery loading docks at Big Spring or the products terminals at Arlington and Abilene. Managers of these points are Sam Heifer at Big Spring, W. F. Coffman, Arlington, and Earl Cross at Abilene. Also helping the small jobber with limited finances is a station painting service. Stations are usually painted at least once every three years, by two company painters who are kept busy traveling Cosden's territory. Leonard Blackwell, merchandiser, promotes good housekeeping among the dealers, and assists with station openings, advertising and other problems. Aiding the businessmen in every way possible and helping him to sell difficult commercial and farm accounts are members of the field sales force. They include Lowell Baird, Doyle Bynum, Rex Baggett, John Rudeseal, all of Big Spring, and W. F. Coffman and Hugh K. Harris of the Arlington terminal. However, any problem that can't be solved by the salesman and the jobber is taken directly to the top. This is a policy of the company that is encouraged by R. M. Johnson, coordinator of sales, and C. W. Smith, sales manager. Carrying credit accounts is a big feature in the Cosden-jobber program. The dealer submits a credit application on a customer and gives his personal opinion of the risk involved. If the application is approved by A. Glenn, credit manager, the jobber is informed how much credit the company will be responsible for and the terms of the payment. As long as the jobber does not overstep a credit account, he can't lose. The company does not guarantee its jobbers a certain margin, preferring, instead, to work with each individual distributor in recognizing local market conditions. Cosden does try, however, to insure the jobber a good profit.

She Knows All The Voices From Long Tenure At PBX

Anna Mae Berry knows more people by voice than anyone in Big Spring. Her speaking acquaintance certainly is not bounded by the corporate limits, for she automatically puts voices with names from New York to San Francisco, from Canada into Mexico. Moreover, in her capacity as receptionist for Cosden Petroleum Corporation, she must put names with faces of those who call personally on business. She never ceases to be startled to see for the first time someone with whom she has had a telephone friendship perhaps for years. Although the work may become exacting, torrid and tense, she manages to take it in stride. She has 25 years of experience to ease her over the rough spots. After initial experience as a telephone operator, she worked on a PBX board in Fort Worth. There was a period in which she did not work and then she was operator for the Blackstone PBX before joining Cosden here seven years ago, relieving Nell Rhea McCrary (White). In that space of time she has seen the board grow from one to two positions; from around 50 stations to 147; from a situation that led her beg for something to keep her occupied to one where she and

an associate, Evelyn Arnold, find the day's volume of something like a minimum of 50 long distance calls and 2,000 or more local calls per day. Mrs. White, who now operates the addressograph, still does relief stints. When Mrs. Berry first took over on the board, it handled all inter-office calls as well as outside and long distance ones. Now there is an inter-office dial and a local dial that does not go through the board, and it is a good thing for the two of them keep adequately busy as it is. On several occasions she has handled calls to foreign countries, some to England, France and one to Spain recently. Now and then all eight trunks to the outside may be jammed, or the 16 lines between the headquarters office and the refinery may be busy, but logjams quickly subside. Once in a great while Mrs. Berry must set up a conference call which may see as many as four parties here in on the hook-up. She can almost tell what section of the country is calling by the manner of speech of the operator at the other end. "You don't have to tell me when New York is calling," she said, "I can tell." In almost every instance, she finds other operators and receptionists polite and pleasant. Now and then she hears a cheery personality over the phone. "You can sure size a person up pretty quick over the telephone," she observed. She loves her work because she is in touch with all parts of the Cosden organization and with the people who make it go, and in between she is flitting about over the wires of the nation to wherever Cosden may have business. But wherever it is, she is conscious of the fact the "people may form their opinion of the company through their contact with us."

First Ector Well Drilled By Cosden

Cosden Petroleum Corporation can lay claim to having discovered oil in Ector County. As a result of leasing by Josh Cosden before the company was created, a wildcat well was spotted in Ector County west of what is now the Penwell field.

It was the Cosden No. 1-A Connell Ranch, and it came in as a small producer in March of 1927. Instead of following up on this, Cosden turned attention to the then red-hot Howard-Glasscock play. Together with other companies, Cosden returned in 1929 and developed the prolific Penwell field. Today Ector is one of the most bountiful of all oil producing counties in the state.

16 Wells Located In Penwell Field

Cosden operates 16 oil wells in the Penwell Field of Ector County which account for daily production of 188 barrels. These wells produce from the Clear Fork formation, and gravity of oil is 23 degrees. Five of the wells on the Klou lease make 53 barrels. Three on the University "A" lease make 48 barrels, five on the University "B" lease produce 21 barrels daily, and three on the University "C" lease make 44 barrels daily.

Baylor County Lease

Cosden owns a lease in Baylor County which has six oil wells producing 75 barrels of 28 gravity oil daily. The wells are in the Parley field and produce from the Caddo lease. They are located on the J. S. Parley "A" lease.

Pipeline Firm Operates 124 Miles Of Line

Cosden Pipe Line Company, a wholly owned subsidiary of Cosden Petroleum Corporation, owns approximately 120 miles of pipelines which range in size from two to eight inches. The company also has under lease from Shell Pipe Line Company another 14 miles of pipe, according to R. W. Thompson, Cosden vice president. Largest of the company lines is the eight-inch carrier from the Howard-Glasscock field to the refinery. It is also the oldest line, having been built at the time the refinery was constructed. This eight-inch line is 12½ miles long, bisecting the south half of Howard County. From the terminal point in the Dora Roberts "A" lease of the Howard-Glasscock field, a number of gathering lines are extended. These small gathering lines—usually two inches in diameter—extend to numerous leases in the west part of the field. A six-inch line extends from the Dora Roberts lease to connect the eight-inch main line with a trunk line (east-west) belonging to Shell

Pipe Line Company. Another junction is maintained on the eight-inch main line with a trunk artery of the Magnolia Pipe Line Company. This second junction is four miles south of the refinery. Cosden has two lines leading from the refinery to the Itan-East Howard field. One is a four-inch line purchased from the Glenmoor Pipe Line Company, and the other is a six-inch line leased from Shell. Both the lines are about 14 miles long, and they have numerous 2-inch line connections to field leases. Connections are maintained with Magnolia Pipe Line Company and the Coltex Refinery from the field in the East terminal. It is also from the East Howard pump station that a four-inch extension—16 miles—goes to the Sharon Ridge-1700 Area of North Central Mitchell County. Here too a number of small lines are connected.

Cosden Has 12 Wells In Borden County

Twelve of Cosden Petroleum Corporation's oil wells are located in Borden County, and ten of them are in the Reinecke field. The twelve wells produce an average total of 653 barrels of oil daily, said Hubert Stipp, Cosden petroleum engineer. The ten Reinecke wells, which are on leases owned entirely by Cosden, produce 540 barrels daily of 43 gravity oil. Production is from the Canyon Reef formation. Of the Reinecke wells, two are on the Ida Holbein lease, two are on the A. L. Holley "A" lease, two are on the Holley "B" lease, two are on the J. L. McNeil lease, and two are on the W. Reinecke lease. One producer in Borden County in which Cosden has an interest is on the T. L. Griffin lease in the Reinecke Wolfcamp field. It makes on the average of six barrels of 34 gravity oil daily. The other well in which Cosden has an interest is in the Fluvanna-West field and makes seven barrels of 40 gravity oil daily. It produces from the Ellenburger formation.

Best Wishes To **COSDEN** On Your 25th ANNIVERSARY

We're Proud To Have The Pleasant Association In Business And Wish You The Best For The Future . . .



WOLVERINE SHOES
Rockford, Michigan

Happy Birthday to the

COSDEN
PETROLEUM CORPORATION

TRUCK TERMINAL CAFE

W. Hwy. 80

Dial 4-5091

Wells In Andrews

Ten Cosden Petroleum Corporation oil wells are located in the Shafter Lake field of Andrews County. They have a daily production of 44 barrels of oil, and the gravity measures 39 degrees. The producing horizon is the Yates sand. Location of the wells is on the University "P" lease.

Congratulations

COSDEN PETROLEUM CORPORATION

For

25 YEARS OF PROGRESS

Paris Yarbrough

Distributor of Cosden Products for 24 Years In
Loraine And Colorado City, Texas

We Fully Appreciate

the adjustment to changing times manifested by Cosden Petroleum Corporation leading to its growth, and contributing to the growth of Big Spring.

The Staff And Employees Of

Cowper Clinic Hospital



An Old Timer Of 45 Years Salutes **COSDEN** On Its 25th Birthday . . .

We, who have tried to furnish fine entertainment to the people of Big Spring for 45 years, have been proud to see our city develop and prosper.

And we have been proud to see this development encouraged by fine industries such as Cosden Petroleum Corporation, and fine people such as are associated with Cosden.

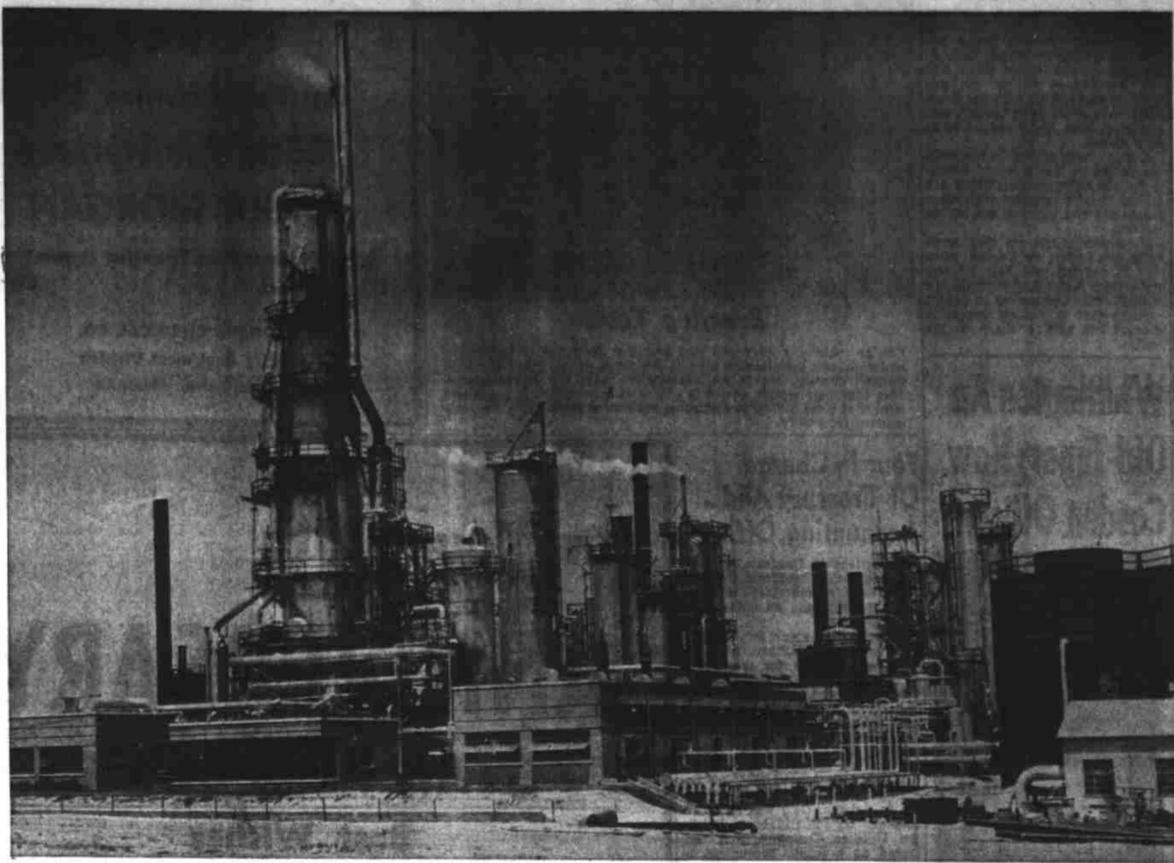
We greet the Cosden people as good friends and patrons through the years, salute them as good citizens who have helped build a better industry and a better community.

Best Wishes, and Happy Silver Anniversary . . .

BIG SPRING THEATRES

RITZ • STATE • LYRIC
JET • TERRACE

FOR THE PICK OF THE PICTURES

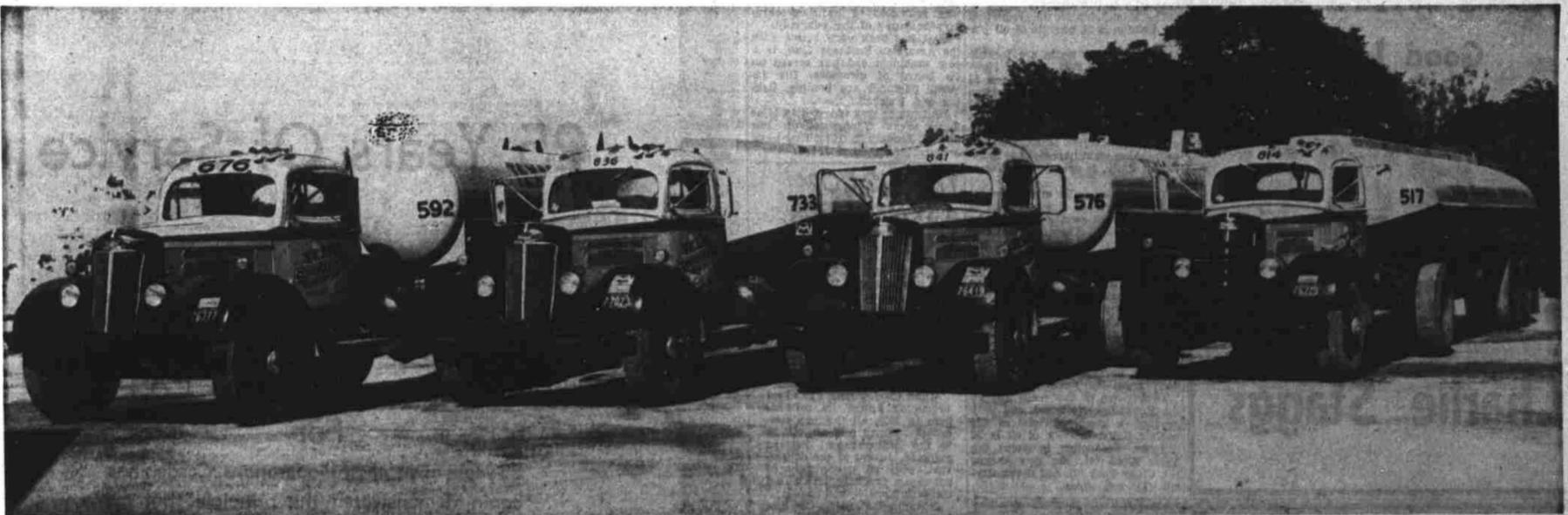


THE PETROLEUM
INDUSTRY is as
MODERN as the
TIME in which
we LIVE

THIS MODERNIZATION IS NO ACCIDENT

Because Cosden operates for the betterment of the community—Congratulations Cosden Petroleum Corporation on your 25th anniversary—It is indeed a pleasure to salute an industry that has been influential in bringing about a better way of life for the people of Texas and the entire State. You have played an important role in the discovery of oil, and the refining of oil and its products

The people of our nation have demanded better transportation facilities, and Cosden Petroleum Corporation has supplied this demand. Each year that Cosden Petroleum Corporation has operated, the people of West Texas have seen progress. Cosden will continue to expand with the folks of West Texas in mind.



An Important Ally of the Refinery

is a fast and efficient transportation system. The fleet of trucks pictured above is just one of many that serve the refineries and oil jobbers of our nation. It is a pleasure for us to be able to serve West Texas in this capacity. Texas Consolidated Transportation trucks haul any liquid petroleum product in bulk.

TEXAS CONSOLIDATED TRANSPORTATION CO.

701 EAST FIRST ST.

BIG SPRING, TEXAS

DIAL 4-5001

More Emphasis Put On Oil Production

Cosden Petroleum Corporation, which has long been prominent in refining circles, in recent years has placed more and more stress on the production of crude oil. And as of April 30, this year, a total of 15,908,548 barrels of crude had been produced from the corporation's 174 oil wells.

Cosden at present owns 57 producing properties, and leasing interests cover some 10,738 acres of

land. A total of 5,375 of these acres have been proven up for production.

It is estimated by R. W. (Stormy) Thompson, Cosden vice president in charge of production, that an additional 17,076,785 barrels of crude can be produced from the properties now bearing oil. He also explains that exploration projects are possible in the unproven leases held by Cosden.

Though the production department has been expanded considerably in recent years, history reveals that Cosden has always been a producing company as well as a refining company.

When J. S. (Josh) Cosden first came to West Texas to build the corporation which bears his name, he obtained several oil leases. He intended to have a producing company.

Among the first leases owned by Cosden were two on the Waggoner Ranch in Wilbarger County, two producing leases in the Pettus area of Bee County, four producing leases in the Penwell Field of Ector County, and one small lease in the Howard-Glasscock area.

The corporation at that time also owned a half interest in the Royal Oil and Gas Company lease on Dora Roberts land in the Howard-Glasscock field, one quarter interest in three leases in Jones County, and a considerable amount of undeveloped wildcat acreage.

These properties were not increased for a number of years. Though some efforts were made to expand production operations prior to 1937, these efforts were relatively unsuccessful.

After the management of the company left the Cosden family in 1937, little or no effort was made

to expand producing operations until the early war years.

During 1941 and 1943 the W. R. Read and W. L. Foster leases of the Iatan-East Howard field in Howard County were developed. And the Sewell field in Young County was opened. Later the Sewell field depleted, and Cosden sold its interest.

It was also in this period that Cosden sold its producing leases in the Waggoner Ranch area of Wilbarger County and in the Pettus area of Bee County. Operations were centered and expanded in West Texas, particularly in areas near the refinery in Big Spring.

During the war years and immediately following, Cosden supported a modest wildcatting program in Howard, Mitchell, Scurry and Borden Counties.

Cosden had a lease located in the midst of what turned out to be the Kelly-Snyder (reef) field in Scurry County. And the corporation also owned a number of leases in the recently discovered Reinecke Field of Borden County. These leases have added considerably to the crude production totals for Cosden.

Activity in the production end of the business became so heavy that in 1950 the production department was expanded to include a separate lease and exploration department, a complete geological and geophysical department, and division offices in Denver, Colorado, and Corpus Christi, Texas.

The lease and exploration department is today headed up by Marvin Miller, another Cosden vice president.

Thompson's production department has three engineers, production superintendents in Big Spring

and Penwell, and production foremen in the Spraberry Trend Area, Andrews County, Sterling City, and Lea County, New Mexico.

Wells were drilled in the past year at Nebraska (1), Wyoming (5), Andrews County, Texas (6), and the Spraberry Trend, (10). At the date of publication three rigs are running — in the Oceanic Field of Howard County, the Spraberry area of Reagan County, and a wildcat area in Crockett County near Ozona.

A great many of the Cosden wells are drilled on leases owned entirely by the corporation. Others are drilled as joint ventures with other companies and independent oil operators.

Thompson points out that some wells are drilled by Cosden when only a quarter and half interest are owned. A number of wells are drilled with Cosden as a silent partner—that is without operating interest but with a share in the profits.

Whittington An Old-Timer; Now Cosden Officer



V. A. WHITTINGTON

It was a jump from the food business to the oil business that V. A. Whittington made. It landed him in Big Spring with Cosden, back in August of 1929 so that Whit qualifies as another of the Traffic Cop's "old-timers."

Whittington is a native Texan, born at Marysville, but he spent most of his boyhood days at Leon, Okla., where he completed high school. In 1924 he attended business school at Wichita Falls.

The next year he took a stenographic job with Swift and Co. in Wichita Falls, was with that concern for about nine months before joining the Radford Grocery Co. as billing clerk. After some two years in that line, Whit moved to the Continental Oil Co. as a stenographer and assistant yield clerk. He left Continental to accept employment with Cosden as yield clerk. He was made chief clerk in October, 1935 and February 1, 1945 was promoted to assistant-secretary-treasurer of the company.

Whit has been very active with the American Business Club, is a past president and has served on its board of directors. His favorite pastimes are hunting, fishing and baseball.

Whittington was married to Miss Sybil Jean Thompson of Big Spring, January 25, 1940. They have a daughter, Marilyn Joyce.

TRAFFIC COP A SYMBOL FOR MANY YEARS

That snappy Cosden Traffic Cop has been with the company almost 25 years.

Trim in his dark blue uniform, white belt and gloves, he has been holding up one hand since 1930's in a gesture to halt the motorist. With the other he has been neatly directing attention to the Cosden insignae.

When Cosden first started producing from its refinery here in 1929, all the products, except railroad fuel oil, moved to the Midwest and Eastern markets. Advent of the depression, plus an over-supply of petroleum products, induced marketing nearer home.

Just how the Traffic Cop was born is not clear, but he was a product of an advertising agency which was looking for some distinctive symbol.

Ever since then he has been promoted with radio and newspaper advertising to direct motorists to better motoring satisfaction.

Wells In Wyoming In Cosden Holdings

Cosden Petroleum Corporation has partial interest in three producing oil wells in Niobrara County, Wyoming.

Daily gross production from these three wells totals 300 barrels, according to Hubert Stipp, Cosden petroleum engineer. Gravity of the oil is 40 degrees.

The wells are located on the Bell, Maule and Munoz leases—all in the Newcastle field. Production is from the Newcastle sand, and each well produces 100 barrels daily.

Interest In Runnels

Cosden has interest in a small producing well in the Winters pool of Runnels County which makes six barrels of oil daily. Gravity of oil is 29 degrees, and production is from Caddo lime. Location is on Cosden's Hightower "B" lease.



Exactng Tests

Cosden maintains advanced and precision instruments for testing materials and maintaining highest standards of quality. Here Pete Garner, chemist, makes an examination with the refractometer. This seemingly simple device is valued at approximately \$1,500 and is part of some \$30,000 of electronic equipment required in Cosden's modern laboratory.

Four In Charge Of Treasury And Accounting Office

Operations in Cosden's treasury and accounting department are directed by a secretary-treasurer, two assistants and an office manager.

Secretary-treasurer for the concern is A. V. Karcher, who has been with Cosden for more than 14 years. The assistants are V. A. Whittington and Linn T. King. William (Bill) Crooker is office manager.

Karcher is a certified public accountant and worked as an accountant for nearly 35 years. Prior to joining Cosden in 1940, he operated an office as public accountant in Atlanta, Ga., was chief accountant for the Oklahoma Northern Utilities Company, and operated as a public accountant in Dallas.

From 1931 to 1937, Karcher served as an accountant in the Federal Bureau of Investigation. It was while he was associated with the FBI that he became acquainted with Raymond L. Tollett, Cosden president and also a former FBI man.

Eight Cosden Wells In Jones County

Interest in eight wells in Jones County is owned by Cosden Petroleum Corporation. These wells produce on the average of 50 barrels of oil per day.

Location of the wells is in the Jones Regular Field on the W. E. Camp and Laura Carter leases. Production is from the Noodle Creek Lime, and gravity of oil is 39 degrees.

Congratulations To
COSDEN
On The Occasion Of Its
25th Anniversary
JAKE MORGAN
Branch Manager West Texas-New Mexico Division
112 Cedar Road Big Spring
ANSUL CHEMICAL CO.
Fire Equipment Division
Marinette, Wisconsin

Vance Supply Company
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118 E. 1st 311 S. Grimes
Phone 6-4307 Phone 3-4416
Williston, North Dakota
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Power Transmission Specialists
Twin Disc Clutches
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Torque Converters
Sales and Service
Complete Stock Of
Oilfield and Industrial
Ball and Roller Bearings
Diamond Roller Chain
National Oil Seals
Westinghouse Compressors
and Control Valves

PRODUCTION NEAR HOME

46 Cosden Wells In Howard County

Forty-six of Cosden Petroleum Corporation's producing oil wells are located in Howard County in the immediate vicinity of the refinery.

Of these, only 25 are located on leases wholly owned by the corporation. The other 21 are located on leases in which Cosden has a quarter interest.

Total production from the 46 wells is 1,159 barrels daily, according to R. W. Thompson, production vice president.

The wells are located in the following fields: Howard - Glasscock,

Iatan North, Oceanic (Pennsylvanian), Coronet 2900, and Moore. Twenty-five are in the Howard-Glasscock field.

Six of the producers are in the Moore field on the T. M. Dunagan lease. They produce a daily average of 192 barrels of 29 gravity oil from the San Andres formation.

Ten Cosden wells are in the Iatan North pool, and production there is from the Clear Fork (Permian) formation. The four wells on the W. L. Foster lease produce 12 barrels daily of 31 gravity oil. The six on the W. R. Read leases pump 20 barrels daily, and gravity is between 28 and 29 degrees.

The total Iatan North production for Cosden is 32 barrels of oil per day.

Three Cosden wells are located in the Coronet 2900 Area of Howard County, and they produce 15 barrels of oil daily. The production is from the Glorietta (Permian) formation. Two wells, making seven barrels of 25 gravity oil, are on the Guy Guffee lease. The other, making eight barrels of 30 gravity oil daily, is on the C. L. Jones "B" lease.

Two Cosden wells are in the recently discovered Oceanic field of North Howard county on the John Jackson lease. They produce 206 barrels of 41 gravity oil from the Pennsylvanian reef.

Of the 25 wells in the Howard-Glasscock field, only four are on leases wholly owned by Cosden. Two on the Reed Brothers lease produce 13 barrels daily of 28 gravity oil, and pay is in the Glorietta sand. The other two are on the Dora Roberts "C" lease and produce 17 barrels of 30 gravity oil daily from the Yates Sand.

Twenty-one of the wells are on the Royal-Roberts lease, and they produce a combined total of 684 barrels daily. Gravity of oil is 30 degrees. Production is from the Yates Sand (4), the San Andres (7), Clear Fork (9) and Seven Rivers (1) formations.

Good Luck

to

COSDEN
Charlie Staggs

Best Wishes!

COSDEN PETROLEUM CORP.

On Your

25th ANNIVERSARY

We deem it a privilege to have had a part in Cosden's program. We believe the next 25 years will be equally as progressive.

KOUNTZ-CARTER SUPPLY CO.

East Highway 80

Big Spring, Texas

Dial 4-7441

25 Years Of Service

Congratulations to
Cosden Petroleum Co.
For

25 years of successful operations. Cosden has again demonstrated the principle that an American industry in an atmosphere of a free and unhampered economy can grow and prosper and serve the needs of a Community, a State and a Nation.

PREMIER

Oil Refining Company Of Texas

Best Wishes!

For Another 25 Years Of Progress

COSDEN

Petroleum Corporation,

Its Officers and Directors

- RAYMOND L. TOLLETT President
- MARVIN M. MILLER Senior Vice-President, Exploration
- R. W. THOMPSON Vice-President, Production
- DOUGLAS L. ORME Vice-President, Traffic
- NELSON PHILLIPS JR. Vice - President & Gen. Counsel
- A. V. KARCHER Secretary and Treasurer
- L. T. KING Asst. Secretary and Asst. Treasurer
- V. A. WHITTINGTON Asst. Secretary and Asst. Treasurer
- ALMA C. GOLLNICK Assistant Secretary
- THOMAS I. SHERIDAN Director
- JAMES L. CAREY Director
- LEO M. O'NEIL Director
- BENJAMIN H. ROTH Director

C. W. Guthrie Oil Operator

516 PERMIAN BUILDING

BIG SPRING, TEXAS

Former T&P President Dealt With Cosden For Site Here

DALLAS — John Lynch Lancaster, a man who had a great deal to do with establishment of the Cosden Refinery at Big Spring, lives quietly and alone in his fine brick home in Dallas.



JOHN L. LANCASTER

"I am gentle in character," he chuckled, "but I don't know anyone who would want to live with me."

Lancaster is 84, a big broad-shouldered man with firm jaw and appraising blue eyes. The years have mellowed him, but they have not impaired his alert intelligence. He says he has a hell of a time tuning in his television set, but he keeps up with the world and he has opinions on just about anything you want to mention.

From May 1916 to May 1945, Mr. Lancaster was president of the Texas and Pacific Railroad.

He well remembers when Josh Cosden called on him to talk about building a refinery at Big Spring.

"Mr. Cosden came to see me in Dallas," Mr. Lancaster said, lighting up a pipe with a very long curved stem. "Mr. Cosden said to me: 'I can raise the money to build a refinery at Big Spring if you can buy the output of fuel oil.'"

"At what price?" I asked Mr. Cosden.

"At the going price," he replied.

"I knew we could use the fuel oil for our locomotives, of course. I also was interested in the idea for the T&P could have the bus-

ness of hauling the gasoline out.

"So I told Mr. Cosden we could use the fuel oil, at the going price. Next thing I knew, he was out there in Big Spring building the refinery."

Mr. Lancaster, sitting in the big chair at his home, came by his side, sighed. "That's about all there is to that refinery story," he said.

"My relations with Mr. Cosden were always very pleasant."

Mr. Lancaster put down the pipe. "I wish I would quit smoking," he said. "I quit for five years when a doctor told me to. Then one day a friend said: 'What you want to live forever for—so I started smoking again and now I can't quit it. Smoking's company for me, living alone the way I do.'"

Mr. Lancaster carried on a live-

In another room of the big home, two fine French poodle dogs, tore away from a Negro servant and romped into the living room where Mr. Lancaster sat. He patted one of them fondly. "All my life I've liked dogs," he said.

A visitor remarked that a French poodle learns tricks more easily than any other breed.

"I don't care about tricks," Mr. Lancaster said. "I just want him to be a dog. But this one learns without being taught. I'll show you."

He then addressed the poodle: "Go over to that fellow and sit down and shake hands with him." The poodle immediately carried out the instructions. "Now jump over my foot," Lancaster told the poodle. The dog obeyed.

Lancaster was born in Jackson, Tennessee, December 29, 1869. His was a poor family but the retired railroad president smiled and said: "I was a capitalist before I ever had a dime. It's the system I always believed in."

Once at a dinner at the home of J. P. Morgan, the financier, in New York, a lady guest said to Mr. Lancaster: "I understand you are a Yale man."

"No, Mam," Mr. Lancaster replied. "My school was P&S."

This satisfied the lady, but not another person who said: "I am curious, but what is P&S?"

"Pick and shovel," said Mr. Lancaster.

Discussing the world situation, Mr. Lancaster said of the Communists: "Whatever they are for, I'm against. Their whole scheme of life is to destroy things that have been accomplished by the followers of the Lord, Jesus Christ."

Mr. Lancaster carried on a live-

Good Yield In Reagan Wells

The most prolific wells in which Cosden Petroleum Corporation has an interest are located in the Spraberry Trend Area of Reagan County.

These wells, numbering 15, produce approximately 1,530 barrels of crude oil per day from the Spraberry sand. They are located on eight different leases, only one of which is entirely owned by Cosden.

The one lease wholly owned by Cosden has two wells which produce 85 barrels of oil per day. Gravity measures 39 degrees. This lease is from the Sanger Investment Company.

Interest in producing leases are as follows: Cora Douglas lease, two wells for 268 barrels daily, 42 degrees gravity.

N. L. Douglas 1-28 lease, two wells, 168 barrels, 41 degrees.

N. L. Douglas A, one well, 113 barrels, 41 degrees.

J. N. W. Unit, two wells, 90 barrels, 41 degrees.

J. F. Nunn "25," two wells, 255 barrels, 41 degrees.

J. F. Nunn "29," two wells, 266 barrels, 42 degrees.

J. F. Nunn "30," two wells, 246 barrels, 41 degrees.

by discussion of the National Administration (he likes Ike) and state political candidates.

"You know," said he, "I have always been very interested in politics. If I had not had a railroad career I might have tried to be a politician. But I think it calls for special abilities and training if one is to be successful—not every man should try to be a politician."

A visitor put in: "Well, not every man can run a railroad."

Mr. Lancaster smiled broadly. "Every man thinks he can run a railroad," he said.

56 Barrels Daily From Company's Sterling Wells

Sterling County wells which are owned by Cosden produce a total of 56 barrels of oil daily, according to R. W. Thompson, production vice president.

There are 19 of these wells, and they are all located in the Durham field. They produce from the Sandres formation.

The 10 wells on the corporation's Durham "A" lease produce 38 barrels of crude daily, and the gravity of oil is 31 degrees.

Five wells on the Durham "B" lease produce 11 barrels per

Well In Live Oak

Cosden has interest in one oil day of 30 gravity oil. The other four producers, on the Lee Hunt lease, made 7 barrels of 29 gravity oil daily.

well in the McNeill field of Live Oak County which produces approximately 72 barrels of oil per day. Production is from the Hockley Sand, and gravity of oil measures 40 degrees.

Best Wishes!

To The

Cosden Petroleum Corporation

On Your

25th ANNIVERSARY!

Nalley Funeral Home

906 Gregg Dial 4-6331

Congratulations To **COSDEN PETROLEUM CORPORATION**

On Their Fine Record Of Achievement

PURVIN and GERTZ Consulting Engineers Dallas, Texas

AND THEY'VE ALL BEEN FUN

Helen Green Has Filled All Manner Of Jobs In 19 Years

The last time a Cosden special edition was printed by the Herald, a "box" told how Helen Duley was the lone woman employe among 317 men at the refinery.

That was in 1934, five years after Cosden had been in production at the refinery. Now there are women on every hand and Miss Helen is now Mrs. Leslie Green, but she still holds her place of prominence. Helen, as she is affectionately known to all from top to bottom in the Cosden organization, is private secretary to the president, R. L. Tollett.

Now, after more than 20 years, she regards her job like going to school—fun only you get paid for it. Born in Bonham as daughter of the late Mr. and Mrs. Frank Duley, Helen was educated in various convents, was graduated from St. Edwards in Dallas and attended Metropolitan Business College there. When the family moved to Big Spring, she worked part time in the high school principal's office and at the Chamber of Com-



HELEN GREEN

merce. By 1933 she was was on full time as switchboard operator at the refinery. Soon she found this involved a variety of assignments including punching out Western Union Messages and delivering them; doing some typing; and operating the teletype machines on the side. For awhile, she inherited the timekeeper's job and could put every name with every face. One day the male stenographer caught his hand in his auto fan and Helen got a chance to serve as stenographer.

Successively she took dictation for the superintendents; then for two vice presidents, and finally, in 1946 was made secretary to the president. There may be time to spare when he is off on business trips, but there may be long hours when he is home. Once she put in 10 hours on Thanksgiving because the boss had to leave on an important trip the next day.

One of the fascinating facets of the position is, that she gravitates into so many interesting situations. Once she had to secure a special nurse when her boss' child became ill during the parents' absence. At other times she has taken children to the doctor; has represented the family at P-e-e-l-a-d-s when it was impossible for them to be back in town; has done shopping and on another occasion took care of the household operation while the boss and wife were in Europe. When headquarters were moved here, Helen had to help find housing for 30 families.

Mrs. Green has developed a formula for handling these and other assignments. It is simply that she tried to fit her thinking into the pattern of whatever boss she had.

An exceptionally talented pianist, she has found her music opened many delightful doors. She helped a superintendent's daughter with her practice; accompanied the wife of another (a former New York Stage singer) frequently; served as accompanist for more people than perhaps any other person in Big Spring; was pianist for an orchestra Cosden once had; teamed with another Cosdenite, Arnold Marshall, to furnish the only entertainment for the opening of the Midland-Odessa airport; entertained directors; has been the center of attraction at Cosden gatherings when groups rally around the piano to sing.

Many colorful personalities have

crossed her path over the years. One day she directed a friendly young man with all the appearances of a farm hand to the chief chemist for a test of some sands. It developed he was Peter Hurd, who was then doing the fresco mural in the Big Spring postoffice.

Frequently, she took dictation for outsiders who had business with Cosden and found they would prefer a secretary from their host. Accordingly she turned down offers of employment in Fort Worth, Dallas, Chicago, Tulsa and many other places. Once she took notes from a postal inspector who was checking a former employe—but had to surrender the notes when the job was done.

The job was not without its moments of mystery. When a certain superintendent left the company, a friend of his tapped the superintendent's telephone line. The telephone company located the tap, but not before Helen had been made suspect along with the Fort Worth operator, for leaks of information. Thereafter, the line to the superintendent's office never went through the attic but rather in plain view from the master box to the office.

She keeps up with former employes and has a remarkable mental file on them and their families. Many times she has been in on entertaining various company guests and thus has had a part in numbers of parties—one featuring pheasant with all the trimmings and another an Italian dinner that was out of the world.

Over the years she has been active in the Music Study Club, the American Legion Auxiliary, the XYZ Club, has served as Sweetheart for both the Lions and ABC Clubs, was secretary of the YMCA when it organized; is a member of the St. Thomas Catholic Altar society, organist and choir director.

And besides all this, Mrs. Green has her own house to keep going. She and Mr. Green have two children, Lynn Anne, already a musical prize winner at 4, and Paula Patricia, 2. Being mother is only natural for Helen, for after all she's been company baby sitter long enough to be sitting with the babies of some of the babies she once sat with. But it's fun—and Helen means just that.

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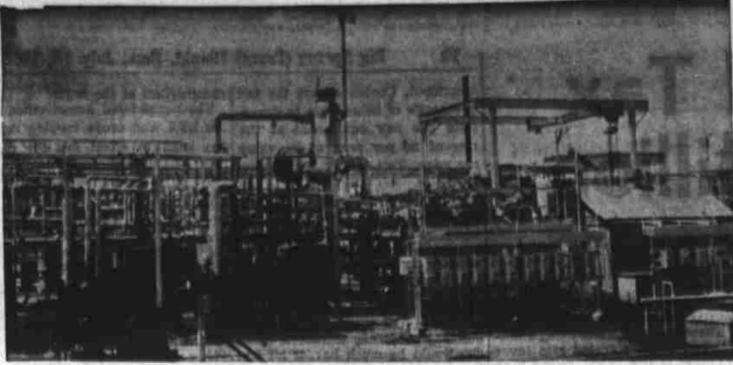
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Xylene Separated Here

Above is a view of the paraxylene unit at Cosden's refinery. The unit removes paraxylene from the other xylenes which are produced from the BTX plant. The paraxylene is sold by Cosden to manufacturers of such things as synthetic fibers, including Dacron.

Several Units Responsible For Buying

Cosden Petroleum Corporation's purchasing program is divided into several departments.

There is an actual purchasing agent—Otto Peters Sr.—but his job is primarily to supply materials for the refinery. Some purchasing is also done through Marvin Miller and E. W. Thompson, vice presidents, and Carl W. Smith, sales manager.

Between \$700,000 and \$750,000 worth of materials are purchased monthly to maintain the refinery. Peters points out. This includes anything from light bulbs to pumps and building parts.

The exploration department, headed up by Miller, is responsible for purchasing royalty and lease interests. Crude oil is bought by Cosden Pipe Line Company, through Thompson.

Materials are purchased for the sales outlets through Smith. Office supplies, furniture and fixtures are purchased by Bill Crooker.

Most of the refinery purchases center through the warehouse, superintendent being James Edwards. When requisitions are made by department heads and referred through the warehouse, they are then routed to the purchasing department.

Peters points out that no purchasing order is issued unless an approved requisition is received. However emergency purchase orders are executed by responsible department heads.

All the invoices covering materials purchased are processed for payment by the purchasing department.

A good percentage of the process work concerning the invoices falls to Mrs. Beth Lueddecke, Peters' assistant.

Sports Interest Brought Jack Y. Smith To Cosden

Jack Y. Smith entered into his association with Cosden through the "sports door." For two years prior to his employment, he traveled from his Abilene home on weekends to participate in baseball and basketball tournaments on Cosden teams.

He joined the company in July, 1933, as a leader in the tank car department. He left the company for about a month in 1934 but returned in August of that year to his same job. Then he was transferred to the asphalt department in March, 1935, to the pumping and treating department in November, 1935, and made foreman of the tank car loading and shipping department in May, 1936. On June 1, 1943, he was advanced to personnel manager and safety engineer, which position he now holds.

Smith was born in Abilene, where he was graduated from high school. He attended Hardin-Simmons University until moving to Big Spring in 1933. He was married in 1932 to Miss Edna Faye Rutledge of Abilene and they have a daughter, Jacqueline. The Smiths own a home at 208 Washington.

He is a Baptist and is active in civic affairs. He is a member and past president of the Lions Club, and has been a director and past president of the local YMCA, has been a member of the City Commission, a leader in Red Cross work (having directed the chapter's fund drive for two years), active in Boy Scout and Girl Scout work, a member of the Chamber of Commerce and a member of the American Society of Safety Engineers.

Smith is an avid follower of all sports and at one time or another has participated in nearly all of them. Golfing, fishing and bowling occupy his attention now, and as a spectator, he goes for football and baseball.



JACK Y. SMITH

My Best Wishes For **COSDEN**

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STRONG ORGANIZATION

Federal Credit Union Has Outstanding Low-Loss Mark

Examiners invariably have to adjust themselves to an unbelievable circumstance connected with Cosden's Federal Credit Union.

Each time a new one has audited the employees' savings and loan organization, he has blinked in disbelief at the low loss factor incurred over 18 years of operation. Out of loans exceeding \$2 1/4 million, the loss has been less than .01 of one per cent. This means that out of every \$10,000 loaned, less than one dollar has been lost.

There are some other almost as startling facts connected with the credit union. One is the degree of participation by those eligible. Maximum potential is 800; Cosden's credit union has 699 participants.

Still another is the heft and regularity of dividend payments. Since its inception, the credit union has paid a 6 per cent annual dividend. For convenience of members, the credit union qualified as an issuing agency for U. S. Savings Bonds. In all, it has sold \$393,693 of these for the government.

A statement of condition as of June 30, 1954 showed the Cosden Federal Credit Union with total loans of \$218,750; cash of \$36,096; saving and loan shares of \$20,000; loans to other credit unions in the amount of \$3,000, for total assets of \$278,000.

The organization has \$234,013 in shares, and there are any number of employees who are jam against their limit of \$2,500 invested in the association. (Any employee or a member of his family may invest

up to \$500 at one time or \$2,500 in the aggregate in shares.) Currently reserves for bad loans amount to \$16,911, which seems more than adequate seeing as how the losses for all these years have aggregated only \$215. Undivided profits have been upped to \$17,758 and profit and loss stands at \$9,967.

The credit union is carrying 699 accounts. During its lifetime it has made 6,592 loans in the amount of \$2,375,220. These loans have ranged from the most minute to those sufficient to finance homes, in event the latter could be done within the maximum period of three years for a loan.

It was in December of 1936 that the credit union was organized and its first month it did \$2,304.61 in business.

Over the years it has paid a total of \$45,432 in dividends, the smallest being \$245 in the war years when it was almost impossible to buy anything much less on terms that would involve borrowing. Peak was in 1953 when the total reached \$9,346 paid to members.

At the outset the credit union officed at general headquarters in Fort Worth. E. W. Lane was president; E. W. Potter, vice president; C. D. Brown, treasurer; H. E. Reed, D. L. Orme, E. W. Richardson and J. W. Burrell, directors.

It soon developed that 90 per cent of the borrowing was through employees of the refinery at Big Spring so the credit union was transferred to Big Spring and V.

A. Whittington, who had been assistant treasurer, succeeded Brown in 1937. For 12 years he served in this capacity, being succeeded by Otto Peters Jr., who has continued as treasurer.

Today R. W. Thompson is president; George Grimes, vice president; Otto Peters Jr., Fred Beck, W. G. Simpson, E. W. Richardson and D. L. Orme, directors. It will be noted that Orme and Richardson are the two that have continued over the years.

Students estimate there are as many as 30 million overweight Americans.

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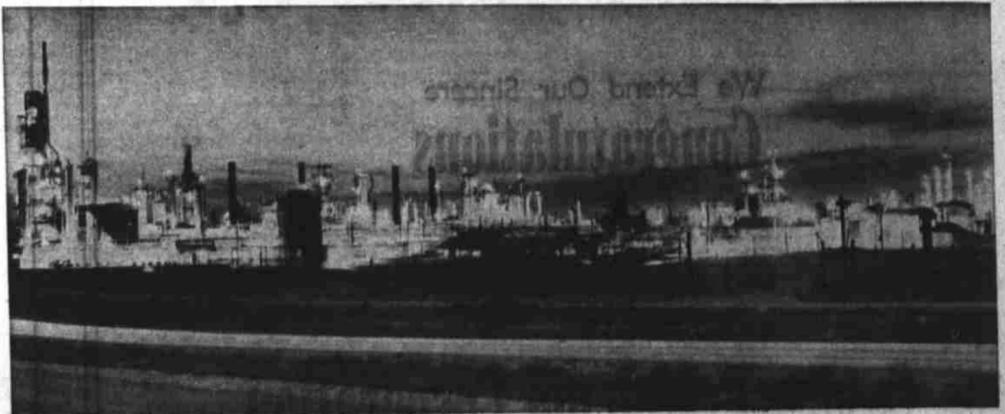
On Your

25th ANNIVERSARY

We Congratulate You . . .

COSDEN PETROLEUM CORPORATION

the Backbone of Big Spring and Greater West Texas



We Are Proud Of Our Pleasant Relationship With COSDEN Over The Past Years . . .

Art Tucker Transport Co.

BIG SPRING



They Care For Cosden's Newest

Newest of Cosden's many departments is the aviation unit, and these make it up — J. T. Wilkinson, co-pilot, and Bill Edwards, pilot. Of course, there is another part, the twin-engine executive type plane which they will fly when company officials have rush business calls to distant points. The plane will accommodate six passengers.

6-PASSENGER DEHAVILLAND

Company Has New Executive Plane

Newest of Cosden Petroleum Corporation's departments is its fastest—the aviation department.

Cosden recently purchased a De Havilland Dove, a twin-engine executive type aircraft, for use where fast transport is needed for company officials.

Bill Edwards, veteran pilot, has been engaged as pilot and hence head of the department. Currently he resides in Midland where the plane is kept between trips pending arrangements to operate from here. Co-pilot is J. T. Wilkinson, who is a member of the transportation department.

So far the Dove hasn't made any distant trips, the farthest being to Tulsa. Numerous trips have been made to Dallas which is within one hour and 35 minutes of Big Spring.

The plane has twin 380-hp Gypsy motors which carry the plane at a normal cruising speed of 180 mph and 200 mph at slightly higher fuel consumption. It has a low wing, wide windows and tricycle landing gear which maintains the

approximate level on the ground as in flight.

With six passengers, as well as a crew of two, it has a 650-mile range. With four passengers and the auxiliary tanks, the plane has a 1,000-mile range. It has six receivers and two transmitters to give it complete radio communication.

Four of the six seats are in facing pairs. Tables let down out of the wall on either side and may be connected into a solid one by use of a leaf across the gangway. One of the tables is designed for secretarial work and is designed for a typewriter. Two of the chairs are the reclining type and by use of a squab, the facing seats can be made into two couches in the matter of seconds.

To the rear of the passenger compartment is the toilet with a let down seat, the lavatory and mirror, hook-up for electric razor, two insulated flasks for hot coffee and cold water. There is a luggage compartment immediately to the rear of this and another up front. The two will accommodate

the normal requirements of six passengers and the crew members.

The plane will be used on company business extensively, especially since there are branch offices in Denver, and Corpus Christi, along with legal and sales operations at Arlington near Dallas.

Edwards, a native of Big Spring, served as an instructor in the Citizens Pilot Training Program prior to World War II. One of his students was Wilkinson. In the intervening years he has served in the ATC, had operated his own flying service, did farm spraying work for several seasons, and has flown practically all types of craft. He holds all CAA ratings. Wilkinson flew three years with the Army Air Force, being stationed at Goodfellow Field during the war. In service he was rated for instruments but now is qualifying for the same rating under the CAA. Most of his flying has been done in twin-engine craft.

Crude De-Salted

Cosden eliminates a lot of corrosion and plugging by desalting crude oil before it enters the heat exchangers of the processing units.

A Petreco electrostatic desalting unit was installed for this purpose in 1946. A catalytic demulsification unit was put in earlier. It removes the sulfur from straight-run gaso-

Leases Made With Stewart, Mrs. Roberts

Cosden's oldest lease is located in the Howard-Glascock field about 11 miles south of the refinery, and there are 21 producing oil wells on it.

The lease is known as the Royal-Roberts lease, and it is partially owned by the Royal Oil and Gas Company.

The first well was drilled on the lease June 15, 1927. At the present time the 21 wells produce a total daily average of 684 barrels of 30 gravity oil. Production is from the Yates sand, San Andres, Clear Fork and Seven Rivers.

The second oldest leases now owned by Cosden are those in the Penwell Field of Ector County. The 16 wells on this lease produce 188 barrels of oil daily, gravity being 33 degrees. Production is from the Clear Fork.

The Penwell Field leases are listed by Cosden as Kloh et al, University "A", University "B" and University "C." They were developed in 1930.

Whales have forelimbs resembling fins, but beneath the smooth skin are bones typical of the forelegs of mammals.

Federal Tax Near Million Every Year

Income tax paid by the Cosden Corporation in the past decade has averaged nearly \$1,000,000 a year.

And it stands a good chance to go much higher in the future—as soon as the accelerated amortization of three new units at the Big Spring refinery is completed. The total for the last 10 years is \$9,328,000. Cosden's peak year for income tax payment was in 1952 when the company turned \$2,335,000 in to Uncle Sam.

The next highest year was 1951 when \$1,847,000 income tax was paid by the corporation. The annual average for the 10-year period starting in 1945 has been \$932,800.

The extremely high income taxes in 1951 and 1952 were due primarily to the high rates levied during the Korean War, although numerous other factors entered the tax picture, A. V. Karcher, Cosden treasurer, explained.

Currently, Cosden is getting a break on its income tax, at least as far as the BTX plant, a crude

topping unit and the new alkylation unit at the refinery are concerned.

These three units are being amortized at an accelerated rate over a period of five years, rather than 10. However, today's tax "break" could conceivably turn into a future burden.

Here's the way Karcher explains the rapid amortization program, and the way it could adversely affect Cosden a few years in the future:

While the new units are being

amortized, Cosden enjoys the tax advantage of being able to depreciate the new equipment at the rate of 20 per cent of its value per year. This can go on for five years.

But when the five-year accelerated amortization period ends, the company will have no depreciation to show against income in the computation of income taxes.

At that time, Karcher explains, suppose some national emergency occurred which would cause an increase in tax rates. Or suppose business conditions worsened. Cosden would be much harder hit by the tax bill, because of no further depreciation, and at a time when it would most need the money to carry on essential operations.

Under such conditions, Cosden would be paying a premium on the 1954 privilege of having been permitted to speed up BTX, alkylation and crude topping amortization as a means of financing the

construction of the units. The accelerated amortization of the BTX and crude topping units has been in effect for the past year and a half, and the equipment in these two segments of the refinery is to be completely depreciated, for tax purposes, in another three and a half years. Amortization of the alkylation unit still has practically the entire five years to run as the unit "went on stream" only a few weeks ago.

This is the record of Cosden's income tax payments for the last 10 fiscal years, each ending on April 30:

1945	\$ 230,000
1946	48,000
1947	382,000
1948	824,000
1949	845,000
1950	426,000
1951	1,847,000
1952	2,335,000
1953	974,000
1954	1,417,000x

x—Estimated.



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To Mr. R. L. Tollett
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of

Cosden Petroleum Corporation

For
25 Years of Progress
We Are Glad That You Are
A Part Of Our Community



Our Sincere
CONGRATULATIONS
To
COSDEN
Petroleum Corporation
On Its
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The Little Shop

214 Runnels

Big Spring Daily Herald

COSDEN EDITION

BIG SPRING, TEXAS, SUNDAY, JULY 18, 1954

COSDEN EDITION

Payroll Has Averaged Over Million A Year, Is Gaining

In a quarter of a century Cosden has pumped approximately \$27 million dollars into the economy of Big Spring and immediate area in the form of wages and salaries. This figure, as impressive as it is, does not take into account some robust payrolls treated by several

major construction projects. In all, the total payments to employees and construction workers likely would exceed \$30 million by a substantial margin. Cosden Petroleum Corporation's current payroll would, if maintained at an even keel, surpass within a decade the amount paid in the first 25 years of operation. When Cosden first went into operation, the annual payroll approximated \$500,000 per year; now it is almost six times that. The corporation provides the

largest single private industrial payroll in Big Spring and Howard County. (Only the Webb Air Force Base exceeds it.)

At the time he announced the establishment of a refinery in Big Spring, Josh Cosden estimated around 50 to 60 men would be required to operate the facility. Actually, he never had that small number. By the time he had re-ramped the plant in 1934, he had 317 at work here. Now the company has 624 on the payroll. From the period of 1929 to 1934,

the payroll averaged \$300,000 per annum. Until World War II came on the average was right at \$600,000 per year. Starting with 1942, with the exception of 1947, every year has shown a gain in payroll totals. Since 1947, the aggregate has doubled.

Here is the detailed record since the advent of World War II:

Year	Amount
1942	\$ 686,371
1943	815,452
1944	1,001,120
1945	1,164,463
1946	1,169,300
1947	1,149,208
1948	1,342,380
1949	1,687,146
1950	1,773,201
1951	1,941,856
1952	2,183,484
1953	2,529,297
1954	2,998,975

Letters Handled By Steno Pool

Correspondence and other stenographic work is handled on an "assembly line" at the Cosden Petroleum Corporation.

The assembly line is the "steno pool," a group of stenographers who handle the bulk of the company's correspondence and similar work. And they never leave their own desks.

The steno pool is an office staffed by four girls and the office manager, William Crooker.

Instead of calling a stenographer into the office to "take a letter," a Cosden official dictates his letter in private and then sends it to the steno pool for transcribing.

The boss dictates his letter to a recording machine. Then he places the recording, along with instructions, in an envelope and places it on his desk.

In a few minutes a courier will pick up the recording and deliver it to the steno pool where one of the four stenographers transcribes the message as the recording is played back.

Nine of the recording machines, more commonly known by their brand names, are maintained for this purpose in the various Cosden offices in the Permian Building. Four transcribing machines, for playing the recorded dictation, are operated by the stenographers in the pool.

Some of the top officials of the company have private secretaries to handle their correspondence, but bulk of the letter writing is done in the steno pool. The four steno pool workers turn out approximately 60,000 letters a year.

simple glass tubes and bottles to a \$11,000 motor which checks the 145 octane rating of aviation gasoline from the new alkylation unit. In the instrument laboratory some \$30,000 of electronic equipment alone is used. There are the conventional testing equipment, motors, etc.

The building is completely air conditioned for a constant temperature. In summer it has a 50-ton refrigerative machine at work.

One wing houses a separate space devoted exclusively for research. Here technicians from the research and development department may work on specific problems, effecting whatever rigging and apparatus is necessary to pursue the study.

All of this work, except the research, may create no additional values to products, but Cosden considers it a wise and necessary investment to insure the exact quality for which it is famous.

Three Pumping Operations From Wells To Refinery

It takes three pumping operations to move crude oil from producing wells through Cosden Pipe Line Company facilities to the refinery.

And it takes approximately 35 electrical pumps for these three operations, according to R. W. Thompson, Cosden vice-president in charge of pipeline operations. The 23,000 barrels of crude used daily by the refinery is gathered through about 120 miles of pipeline. This includes three main lines and an untold number of subsidiary gathering lines.

Operations center in three main pump stations—one on each of the refinery lines—and at nine gathering stations. There are 28 people employed to operate the pipeline system.

A number of the employees live near the field stations. At the mainline pump station in the Howard-Glasscock field, Cosden maintains an office building, a warehouse and seven dwellings.

Pipe ranges in diameter from two to eight inches, the smallest being used as gathering lines from the producing leases. The gathering lines are extended

to as many leases as possible and converge on one central point, known as the gathering station. There are five such stations in the Howard-Glasscock field, two in the Snyder field, and two in the Iatan-East Howard field.

Usually the oil is gathered at these nine booster stations by gravity, Thompson said.

By this he means that oil pumped from the individual wells flows downhill in the pipes to the gathering stations. If pipes cannot be rigged up in a downhill manner, then small gathering pumps are used. This is pumping operation number one.

The gathering—or booster—stations have storage tanks for the crude oil to accumulate.

Then pumps are used to move the crude from the nine gathering stations to tanks at the three main pump stations. Then larger pumps are used to process the crude to the refinery through the main lines.

The entire pumping system of Cosden Pipe Line Company is electrified, Thompson said. Only one booster pump station operates by gasoline.

All Howard County Gets Seismic Study

Howard County is being "shot."

Cosden's geophysical crew, using new equipment purchased last January, is making seismic studies of the entire county. Charges of dynamite are being exploded in shallow "shot holes" and delicate seismographic equipment measures the intensity of the shock waves which reach deep into the earth, strike possible oil-bearing formations and return to the surface.

Intensity of the waves and the time required for the impulses to bounce back to the surface tells geophysicists something of the nature of the earth's structure under the county. Evaluation of this information in the light of other knowledge aids in the quest for oil.



Ingenious Instrument

This instrument not only expedites certain tests in Cosden's modern laboratory, but it actually handles some that can be accomplished no other way. It is a spectrophotometer which tells technicians certain things by means of ultra-violet or infra-red ray absorption. For one thing, it tests the purity of chemicals quickly. The impurities could, by means of comparison with known data for other products, be identified by the unit. This is but one of many complicated, highly sensitive, and costly pieces of equipment which Cosden maintains to insure high quality for all its products.

Laboratory Wins High Acclaim

Several technicians who get around among the petroleum processing plants have reached an unanimous verdict after recent visits to Cosden Petroleum Corporation's laboratory.

"One of the best laboratories of its kind in the country," they said. G. K. Chadd, chief chemist for Cosden, and other veterans of the laboratory can remember when facilities didn't rate so well. A score of years ago half a dozen men took care of all the testing and practically were sitting on one another's shoulders. Now there are five times that many men working in a new building with best equipment obtainable.

Shifts work around the clock to keep an eagle eye on every product of the plant. Quality, a hallmark of Cosden products, is checked rigidly. Around 500 to 600 tests per day may be run on the wide range of yields from the refining and chemical plants.

In the case of gasoline, several tests are made. For instance the gravity (weight in relation to water) is determined; distillation characteristics (determining the boiling range for each 10 per cent cut) are logged. The corrosion content, sulfur content, and the presence of sulfur compounds; the gum tests not only ferret out preformed gums, but potential ones. Vapor pressure is determined and this is varied to provide quick starting in winter and to prevent vapor-lock in the summer. The octane is pegged by use of a MCFR (Motor Cooperative Fuel Research) motor, a device which has three carburetors. Two feed in fuels of

known octane rating and the fuel being tested is bracketed between them until the knocking point is known.

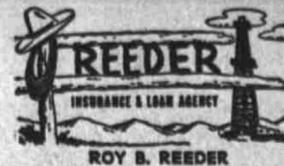
By blending, fuels are brought to specifications. Tetraethyl lead and other additives impart special qualities to the gasoline.

Every order is tested to make certain it meets specifications. If the material goes into storage, it is tested again before it is used again. Samples of all deliveries are kept for a month as a reference in event any question should arise.

Cosden's substantial entry into the petro-chemical field has occasioned new and exacting tests. Two spectrophotometers, intricate electronic devices, determine quickly the composition, which in turn is a measure of purity, of a product by means of infra-red or ultra-violet ray absorption. It is not a question of the spectrophotometers merely expediting tests; actually there is no other means to make some of the tests.

Asphalt manufacture also necessitates a host of tests. Penetration grades must be checked for penetration (depth of penetration of a needle under given weight and temperature), gravity, flash (temperature at which it would ignite), ductility (stretching qualities) loss on heat, solubility, oilensia spot test. With some variation, an equally wide range of tests must be run on rapid (medium and slow) curing grades, roofing grades, and emulsion (water and asphalt) types. Consider that there are upward of two score grades and you have some idea of the complexity of this task. Equipment required runs from

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**COSDEN
PETROLEUM
CORPORATION**
on Your 25th Anniversary



ROY B. REEDER

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Cosden Petroleum Corporation
On Your
25th Anniversary

We have seen the great strides you have made in the development of West Texas Oil industry and wish you continued success.

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Construction Co.

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Snyder, Texas

Our Sincere
Best Wishes To
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On The Occasion Of Its
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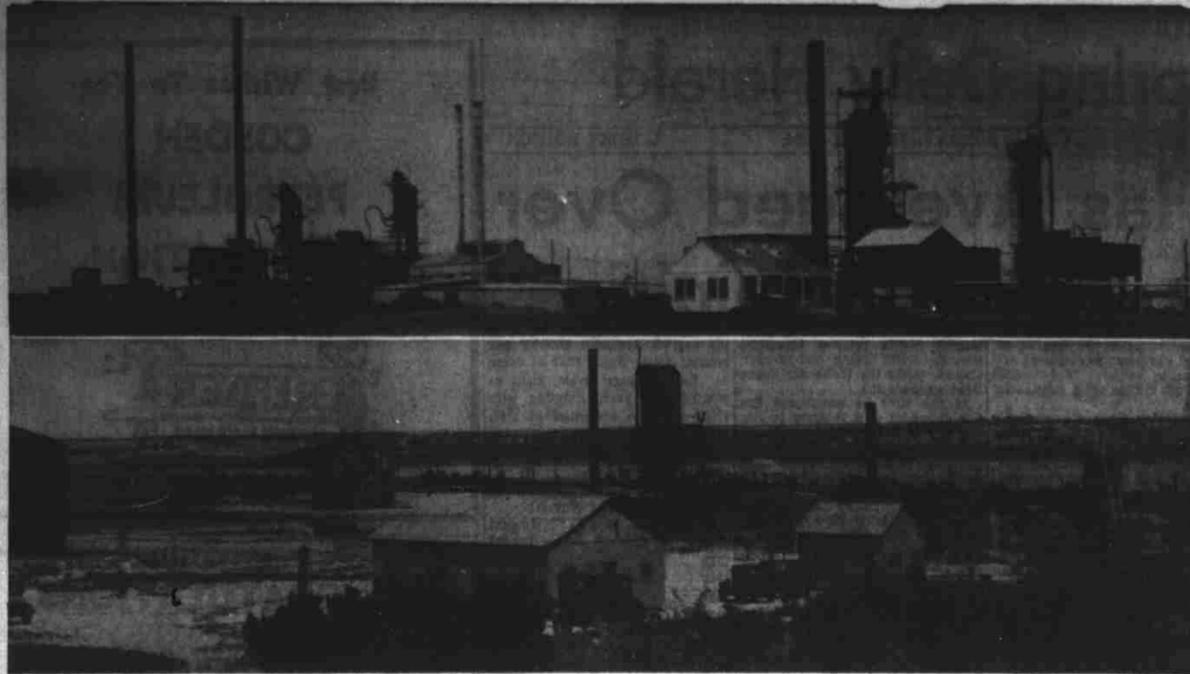
25th COSDEN YEAR

We Offer Our Sincere
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To One Of Big Spring's
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25 Years of Progress
COSDEN PETROLEUM CORPORATION

PROGRESS AND PROSPERITY
have marked this West Texas Area during the past 25
years . . . It has required men like Josh Cosden with a dream,
and many more men with vision to make dreams
a reality, to make our community what it is today.
We Are Proud To Be A Part Of Big Spring

BIG SPRING HARDWARE CO.
115-119 Main St. Dial 4-5265



These Were Refineries That Faded

At one time Big Spring boasted four refineries. Only Cosden endured but its capacity today is more than the four combined. These were relatively elemental types but a quarter of a century ago they were as modern as the next minute. Above is the Richardson Refinery, a sort of "cousin" to the Cosden plant for its owner, W. D. Richardson, had been an early associate of Josh Cosden and later was to become trustee of the debt-ridden Cosden Oil Corporation. It was located north of Cosden and where Cosden's

BTX unit is now located. Below is the Howard County Refining Company plant which was located west of town. This was the first one in operation and connected with the Big Spring Pipeline Company. Note the T&P Lake in the background, Richardson last operated in 1936; Howard County until the outset of World War II. The other refinery was Great West, located immediately east of Cosden and near where Cabot Carbon Company is located today.

Sweet Between The Sour; That's The Way Oil Flows

High gravity sweet oil and low gravity sour oil are transported simultaneously without contamination in one of Cosden's pipelines.

It is Cosden Pipe Line Company's huge eight-inch trunk line between the Howard-Glasscock pool and the refinery that carries both types oil. Approximately 12,000 barrels of sour oil and 3,500 barrels of sweet oil are processed through the line daily, said R. W. Thompson, Cosden vice president.

The two types crude are pumped through the pipe in batching operations—some sour, then the sweet, and then the sour again.

The sour oil flows into the huge line from small gathering lines in the Howard-Glasscock Field. The sweet oil comes from connections with main east-west trunk lines belonging to Magnolia and Shell.

Thompson points out that sour crude is processed in the pipe and then cut off to allow the sweet oil entry. The sweet oil flows right behind the sour. Then when all the sweet that is needed is processed, sour oil is placed right behind it.

This sandwiches the sweet between two layers of sour.

If the proper pressures are maintained to keep a steady movement in the pipe, the two types of oil do not mix, Thompson said. Maybe 20 to 30 barrels at either end will be contaminated, but if so it is

MERCAPTANS CAUSE STINK

Mercaptans, which would give gasoline a bad odor if they weren't removed, are extracted from fuels produced at the Cosden refinery.

The materials, which are compounds of sulfur, are sold as odorants for natural gas and as chemical products. During 1952, Cosden supplied 80 percent of the methyl mercaptans that were used in the production of methionine, a livestock feed supplement and biotic.

always downgraded, he explained. When the two grades reach the refinery, they are separated into different tanks. Thompson said it is fairly easy to separate the two oils, as the pipeline operator knows exactly when to look for the change.

"They know how much sweet oil is being processed and how long the pipe is. Thus they know when the sweet should end and the sour begin," he stated.

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104 Wells Drilled In Two Years

The last two years have been among the most active for the Cosden Petroleum Corporation in the exploration and drilling for oil.

The company has drilled 104 wells in the past two years. Of the total, 58 have proven to be producers and 46 have turned out as "dusters."

Total footage drilled by Cosden during the two years was in excess of a half million feet—a combined depth of nearly 100 miles. All of the drilling has been done by contractors.

In fiscal 1953, Cosden drilled 43 wells—23 dry holes and 20 producers. Aggregate footage was 222,000.

Drilling operations were expanded in 1954 and of the 61 holes drilled 38 were producers and 23 were dry holes. Aggregate footage for fiscal 1954 was 325,000.

In 1952, the company put down 14 wells, bringing in three producers and abandoning 11 dry holes. The only drilling in 1950 and 1951 was in the Reinecke Field of Borden County where Cosden drilled 10 wells.

COSDEN ONLY SURVIVOR

City Once Had Four Refineries

Little more than 20 years ago, 15,000 barrel per day capacity four refineries made Big Spring the acknowledged oil processing center of West Texas.

Of those, Cosden alone survived but in such a way that Big Spring is still the processing center.

Despite claims of capacities of 50,000 to 60,000 barrels per day, the four refineries probably never processed more than 25,000 per day. Cosden Petroleum Corporation now has a put through capacity in excess of 24,000 barrels per day. Most of the gasoline produced more than a score of years ago was "skimmed," that is distilled from

boiled crude oil. Today Cosden is in a position to make gasolines of two to two and a half times the octane rating of those a generation ago. In addition, Cosden also has asphalt and petro-chemical production.

First refinery in the field here was that of the Big Spring Refining Company. C. R. Groff and R. S. Peterson, who was then supervising engineer for Universal Oil Products (from whom Cosden now licenses several processes), arranged and erected the plant. At the same time Big Spring Pipeline Company completed a 15-mile line capable of 5,000 barrels per day on Sept. 1, 1928. The refinery fired up Sept. 28, 1928. By the end of the year it had put through 880,000 barrels. Soon local interests acquired the properties and operated under Howard County Refining Company.

Joshua Cosden, on the comeback trail, announced in Big Spring on July 14, 1929 that he had let contracts for construction of a 10,000 barrel per day refinery which would employ 30-40 men. On June 22, 1929 he had taken option on 1,320 acres of farmland from Pete Johnson and Jess Arnett, and within a month the option had been exercised.

The plant was designed and built by Foster & Wheeler, together with the Graver Corp. of Chicago. Skimming and cracking facilities were provided. The latter process, it was reported, "makes gasoline from heavier oils through high pressure process. The use of these stills more than doubles the quantity of gasoline manufactured from a given quantity of crude oil."

First of the four Jenkins stills went on stream Aug. 4, 1929.

July was a big month for Big Spring, for on the 26th, W. D. Richardson, who had been associated with Josh Cosden in his earlier oil ventures in Oklahoma, announced that he would build a plant north of Cosden. It would have a 20,000 barrel per day skimming capacity and 8,000 to 10,000 barrels per day cracking. A. G. Reid, Cosden vice president, said Cosden was providing 800 acres of land for the Richardson venture. He amended Cosden's claimed capacity to 20,000 barrels skimming and 8,000-10,000 cracking.

Moody Oil and FHE Oil Companies announced on July 29, 1929 they would have half interest in a refinery to be erected by Great West Company on an 80-acre tract immediately east of Cosden. The plant was designed and built by H. L. Honey, who became manager. He said that it incorporated several ingenious departures from customary processes. Great West also had its own pipeline for which it pegged a



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On Their

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Employe Sons Hired For Summer Work

There are 34 employe's sons working at Cosden Refinery this summer while home from college or while vacationing between school terms.

And there are so many employe's daughters who filed application for summer jobs that they had to be split in shifts. Half were hired for the first six weeks of the summer, and the other half were hired for the last six weeks.

It is the policy of Cosden to hire the children of employes during the summer if the children were in school during the past term and plan to return to school during the fall.

This policy has been in effect for the past six years, and the number of student employes has grown considerably during that time. Jack Y. Smith, personnel manager, says the first summer that sons were hired only nine made applications.

This year's group of 34 is the largest to ever work in the summer, Smith points out.

The boys are divided into "gangs," and Cosden employes who have children of their own are put over them as supervisors.

Jobs are picked for the students, and they are not allowed in dangerous areas.

Both boys and girls who are hired under the student program must be at least 16 years of age—in accordance with Federal Law. Each presents his birth certificate to Smith before he can be hired.

Girls who work are placed in the various offices as secretaries and clerks. As many girls are hired as possible, but there are just not enough positions for all, Smith points out.

One employe's son, Richard A. Laswell, has worked for Cosden every summer since the program was initiated. He is the son of Wayne Laswell, a foreman, and is now a senior in college. Only seven of the students are in college.

Cosden officials feel that they help the boys finance their education by employing them in the summer. All are urged to save their earnings to apply during the school year, Smith says.

Boys who are employed this summer are Romie Phillips, Albert Miller, J. T. Baird Jr., Calvin Daniels, Jackie Sheedy, Tommy Wyrick, R. B. Covington Jr., Donovin Smith, Don Reynolds, Bobby Fuller, Preston Bridges, Truman Wilkerson, Ralph Wilkerson, C. R. Wood, Doyle Rogers, Carl Thurman, Enes Diaz, Brick Johnson, Melvin Brown, Jimmie King, Howard Sheets, Ross Roberts, Rias Roberts, James Hollis, Paul Holden Jr., Ray Shaw Jr., Bobby Holiman, Blanton Dees, J. W. Drake, Darwin Williams, Laswell, Buford Ladell Howell, Carroll Lynn Reed and Billy Dean Jenkins.

Production Prospects Look Good

Marvin M. Miller, vice president in charge of exploration for Cosden Petroleum Corporation, foresees a bright future for his company in the production of oil.

In the Rocky Mountain region, Cosden has 12 proven locations, in addition to three producing wells, Miller reports. The only hindrance to expansion of production there is pipeline facilities which are under construction to transport crude to processing centers.

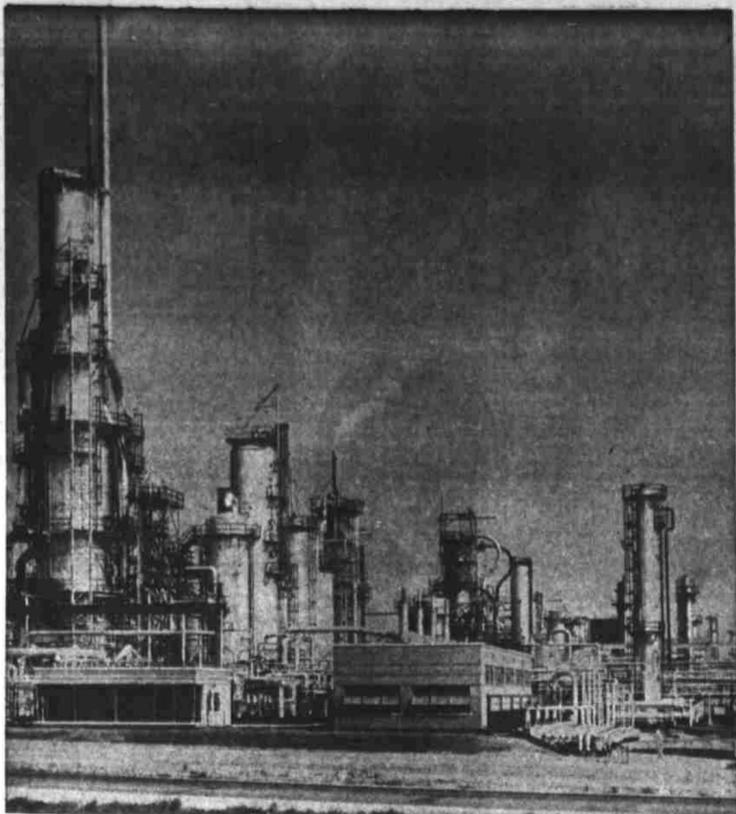
The company also has "several" proven locations in Live Oak County where it recently brought in the discovery well for a new field.

Miller says Cosden has "excellent blocks" of acreage in Crockett, Winkler, Concho, Howard, Borden, Edwards, Andrews, Mitchell, Live Oak and McMullen Counties.

The same is true of sections of Colorado and Wyoming.

"We're in shape now where we can start being choosy concerning leases," Miller points out. "We have our own seismic and geology departments and can do our own looking. We don't have to take anybody's word about oil prospects."

Expanding production is in prospect for every area in which Cosden is active, he explains.



What Travelers See

Pictured above is part of Cosden Petroleum Corporation's refinery as it looks from U. S. Highway 80. Although the entire installation covers some 950 acres, only the huge cat cracker (left front) and other refining units are pictured above. Some 24,000 barrels of crude oil is processed daily through the various refining units, and finished products range from high octane aviation gasoline to asphalt. As evidenced in the picture, hundreds of miles of pipe are located at the refinery for rapid movement of the crude and refined products. Refinery grounds are kept clean and equipment is painted periodically with aluminum paint to insure beauty and long life.

Cosden Had Crude Line Before Refinery Was Built

Cosden has been in the pipeline business longer than it has been in the business of refining.

For back in 1928 when J. S. Cosden ordered the construction of a refinery, he also ordered that a crude oil outlet be built from the Howard-Glasscock field. It was completed before the refinery.

He stipulated that this outlet was to be in the form of an eight-inch pipeline. The pipeline was to extend from his Dora Roberts "A" lease to the refinery—a distance of 12 1/2 miles.

The line, because of a peculiarity in Texas law which does not allow a producer or refiner to own a pipeline, had to be constructed by a newly formed subsidiary, Cosden Pipe Line Company.

For several years, all the company consisted of was the eight-inch line and a pump station. However when production started declining on the Roberts lease, the gathering system was expanded to other leases in the field.

In 1933 when Humble Pipe Line Company withdrew as a purchas-

er in the Howard-Glasscock field, Cosden took over the Humble lines. These lines and other extensions gave Cosden Pipe Line Company extensive coverage in the west part of the field.

In addition to obtaining crude from the Howard-Glasscock field, Cosden at this time was also being supplied with crude from the Penwell Field in Ector County.

The Ector County crude was piped to the Cosden eight-inch line by a Magnolia Pipe Line Company east-west carrier line. The two lines crossed about four miles south of the refinery, and a junction was made. The oil entered the Cosden pipe through this junction.

Actually the Howard-Glasscock and Penwell fields supplied all of Cosden's crude until 1936. It was in this year that J. S. Cosden and his associates formed, as a private venture, the Glenmore Pipe Line Company.

The Glenmore company built a line from the Iatan-East Howard and Snyder areas to the refinery for the delivery of crude. Thought

it operated as a private carrier for about two years, it was eventually incorporated into the assets of Cosden Pipe Line Company.

Later the Basin Pipe Line Company piped oil into Cosden Refinery from the Wasson Field in Gaines and Yoakum counties. But the line was sold to Shell Pipe Line Company, and Shell extended it to the Shell Westbrook Station in South Mitchell.

In 1941 another major hook-up with an east-west carrier line was made by Cosden. The Roberts pipeline terminal in the Howard-Glasscock field was extended by a six-inch line to the Shell Pipe Line Company's Roberts Station.

Through the Shell line, crude oil from a number of West Texas fields could be obtained. This crude is of the high gravity type, described as "sweet oil" by those in the business.

A connection was also made with the Magnolia Pipe Line Company at that firm's Bell Station in the Iatan-East Howard Field. Crude from this company is delivered at the Cosden refinery over the old Glenmore Company lines.

A connection between the old Glenmore lines and some pipelines of Coltex Refinery was also made. Crude is obtained by Cosden from the Chalk area of the Howard-Glasscock Field through this connection.

In 1953 Cosden Pipe Line Company further extended its Iatan-East Howard station capacity by building a four-inch line to North Central Mitchell County. This 16-mile extension was to service the Sharon Ridge-1700 Area.

This was the last major line constructed by the Cosden Pipe Line Company. However, Gulf Pipe Line Company built a six-inch line into Cosden's refinery early this year to deliver crude oil from the newly discovered Luther Southeast Field in North Howard County.

In addition to the many lines operated by the Cosden Pipe Line Company, a number of trucks are also routed. These trucks provide outlets from the isolated leases in Sterling, Glasscock and Tom Green counties.

At present Cosden's Big Spring refinery is supplied with approximately 23,000 barrels of crude oil daily through the Pipe Line Company facilities.

R. W. (Stormy) Thompson, vice president of Cosden Petroleum Corporation, heads up the pipeline operations.

Trucks Bring In Crude From Wells In Isolated Areas

Practically all the oil produced on isolated leases in Sterling, Glasscock and in North Tom Green counties is purchased by the Cosden Pipe Line Company.

The company runs a trucking operation to provide the lease holders with a market, said R. W. (Stormy) Thompson, vice president of Cosden Petroleum Corporation and pipelines director.

Approximately 950 barrels of crude per day is trucked to the pipe line company from the large number of isolated leases, he said. Oil is also purchased from the many fields not connected to pipe lines.

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It's fine to join in the celebration of 25 years of progress, achieved by Cosden Petroleum Corporation. It's progress achieved through a partnership—that between management and labor. It takes both, for a concern to be a success, both working in harness together, each dedicated to carrying his share of the responsibilities.

Forward-looking management of Cosden has helped bring about a sound partnership, and members of the International Union of Operating Engineers (Local 826) has endeavored to do its fair share and meet its obligations. The relationship between Cosden and Local 826 has been a pleasant and progressive one, throughout the 11 years of formal contract. The men who make up Local 826 and who are on the Cosden "team," send their best wishes on this Silver Anniversary.

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Richardson Has Worked Up To Asst. Superintendent

Ernest Wright Richardson, who was born on a Mitchell County farm, March 7, 1908, joined Cosden on Nov. 5, 1928.

At the time he had just enrolled for a correspondence course in chemistry. He went to work in the laboratory which was then a small, crowded partitioned-off section of a warehouse and started doing experimental work and running analyses on crude specimens from all the producing wells in the Howard-Glascock field.

Four months after Ernie went to work for Cosden the original refinery had been constructed and the stills had gone into operation. The daily run then was 7,000 barrels of crude, with tractor fuel an important factor.

Efficiently and industriously bridging the gap between tractor fuel for the farms of West Texas and the fuel for the jets that cross its skies sums up Ernie Richardson's career with Cosden.

Mrs. Richardson, formerly Irene Henderson of Locaine, says "Ernie has a pretty good sense of humor 'at times' and he'll eat just anything—just as long as there is enough of it, just as long as it is what he likes, and just as long as there are plenty of desserts."

He has come up from assistant chemist on a two-man staff through the posts of chief chemist and pumper and treater foreman to the responsibility of assistant plant



ERNEST WRIGHT RICHARDSON

superintendent. The men with whom he has been associated will tell you his hobbies are "work and perfection, perfection and work."

A real citizen of the Big Spring community, his interests and activities are varied. The Richardsons are members of the First Methodist Church. He is a member of the Country Club, the Chamber of Commerce and the Howard County Farm Bureau. But his greatest activity, away from his work, is perhaps his interest in the Band Club at the Big Spring schools.

Products Flow In Order From Refining Plant

There is no line of flow in a sense such as an automobile assembly plant, but Cosden's processing and manufacturing facilities to involve a logical interchange. Each unit is not necessarily next to the one it might logically follow the various processes. This is because it is relatively simple to pump fluids or gases from one place to another or into and out of intermediate storage.

Here tersely is the way material may flow once brought into the tank form as crude oil. Charged to the crude units, the material emerges as gasoline, jet fuel, distillates and residue.

Gasoline may go to the BTX unit where part (aromatics) goes to the chemical units and the fuel to reformers to make into better grade of fuel. Distillates may be utilized as Diesel fuels or returned to the cat cracker where more high grade gasoline is made along with more distillates. Residuals may go through the thermal cracker to produce gasoline, carbon black oil, fuel oil. Or they may also be subjected to high vacuum to yield asphalt of various types and grades.

At various stages gases may be brought together in the presence of catalysts so that new and more valuable molecules are formed. However, whatever the step or process, the material is routed so as to produce the most advanced yield according to demand and market.

Blackie Hines Feared Dark, Until One Certain Night

He wanted a job. He didn't care how hard the work was or how long the hours. All he wanted was an opportunity.

Moore Matt Hines got that job with Cosden a little over 25 years ago and began by laboring on the site upon which the refinery was to be built.

He was a country boy who had been born at Carbon in Eastland County, May 17, 1909. He grew up there and graduated from high school.

"Blackie" (as he became known after the company transferred him to Forsan) remembers how one of his first jobs with Cosden was one that took him out along a pipe line, beyond the lights of the plant at night and how he'd get farther and farther out, and travel slower and slower, looking longingly backward and looking more reluctantly forward, because Blackie brought with him on his new job a dislike for the darkness of night.

Then there was the night Blackie overcame that fear. One January afternoon in 1931 when he was killing a little company time in the drug store at Forsan and he walked to the door, looked out and saw an attractive young lady sitting alone in a car.

Marching up to that car and introducing himself to Miss Annabelle Scudday, recently arrived from Brownfield, he began to warn her that Forsan was full of boys, but that none of them were to be trusted by a nice girl. They drank bad whisky and were crap shooters. He also added that he was not at all like those fellows and he was lonesome and would like a date that night.

He got the date and got all spruced up. When he arrived at Miss Scudday's the lady asked, "Where are we going tonight?"

"To the oil fields," he said.



BLACKIE HINES

"I've got a lot of gauging to do out there tonight." That may have been the night he became a man; at least Annabelle said she didn't notice that he was afraid of the dark.

That was also the night he sold her on Moore Matt Hines. They were married at Baird the following September 12. Upon their return they moved into the house in which they have lived ever since. He is one of the men who has never missed a Cosden pay check.

Once Blackie almost convinced himself he was the greatest deer hunter in Llano County. It was one night in a cafe at Llano after the first day of the deer season. Blackie couldn't resist telling how that very day he had killed a 32-point buck weighing 327 pounds.

He had come in from Forsan the afternoon before. Last night he had eaten supper in this very same cafe. This morning he was up before dawn and in less than an hour at about 600 yards with one shot he had bagged the biggest head in the history of the county.

Then he got up from his chair, swaggered to the cashier's counter to pay his check. The cashier looked at him. "Say, ain't you the Jasper that come in here last night and ate supper and then slipped out without paying? I'm going to call the sheriff."

"Wait a minute lady," pleaded Blackie. "I didn't do that. I wasn't here last night. I was in Forsan. That's a long way from here. I didn't get to Llano till about an hour ago. I can prove it."

And he did. In the presence of all those people by the three companions who had come from Forsan with him, on a fishing trip, and not a deer hunt.

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SENIOR COSDEN PEOPLE

23 Employees In The 15-25 Year Bracket

Twenty-three employees in the refinery maintenance and operating sections have been with Cosden Petroleum Corporation from 15 to 25 years.

And records show that another four employees doing the same type work will round out their 15th year before Dec. 31.

Rufus Morton, operator No. 1 at the pumping and treating unit, is the oldest operating employe paid on an hourly basis. He went to work for Cosden on March 1, 1929, and has been working better than 25 years.

Other 25-year veterans, who were employed soon after Morton, in-

clude Thurman Gentry, operator, and George Phillips, mechanic. By the end of the year the following men will be added to the 25-year list: Aubra Cranfill, operator; W. L. Sandridge, combination painter; and A. L. Carlile, operator in the BTX department.

Other long-time employes include L. D. Gilbert, 17 years, operator; D. C. Bidlison, 20 years, operator; C. E. Milam, 17 years, operator; R. Schwarzenbach, 18 years, operator; C. A. Tonn, 21½ years, operator; H. J. Covert, 21 years, operator; A. M. Wiggins, 18 years, pumper; David Hopper, 21 years, pumper; Ray Groseclose, 19 years, treater.

T. A. Harris, 15½ years, tester; J. E. Cauble, 17½ years, electrician; Jack Reed, welder, 20½ years; W. O. McClendon, leadman, 23½ years; A. C. Wilkerson, boiler-maker, 17 years; F. R. Cunningham, salvage repairman, 19 years; Loney Bunker, tank car leadman, 17½ years; A. W. Reed, tank car welder, 17½ years.

The four men who will have 15 years service by the end of the year include William E. Pats, operator; Joe Adams, pumper No. 2; Olan Wilkerson, mechanic helper first class; and J. F. Reidy, welder No. 1.

Tank Cars Treated To Haul Products As Specialties

When Cosden acquired its tank car fleet 25 years ago, a tank car was a tank car.

Today, a tank car may have a specialty. More than half of Cosden's present fleet of 287 cars are specially treated. Of the total, 49 are equipped with coils and are insulated. Another 106 are equipped with coils but not insulated. The remaining 132 are just plain tank cars.

The insulated and coiled cars are used to ship asphalt, benzol, residual fuel oils, carbon black oil and road oils.

Special compartmented cars are used for toluene and xylene.

Cosden also ships some liquefied petroleum gases. These require special high pressure cars.

25 Years With Company Brings Service Award

The only service award made to employes of Cosden Petroleum Corporation is a gold medallion decorated with a 25-point diamond. This award can be obtained by an employe only after he has served 25 years with the corporation.

There are only 21 employes who have completed, or will complete this calendar year, the required number of years for the award.

The medallion is presented to the 25-year veterans at an anniversary party, and the party is held—as near as possible—on the exact date the quarter of a century mark is reached.

The veteran has his choice of a tie clasp, ring or pin. Which ever he chooses, the design is the same. The medallion is inscribed with "Cosden Petroleum Corporation", and it contains a diamond for each year's service.

The parties are held wherever honored employes wish. Some are stag, and others are family gatherings. There is always a biographical sketch of the veteran presented, complete with all the humorous details his fellow employes can remember.

Employes with 25 years service by the end of the year include Alma Gollnick, M. M. Miller, George Grimes, Sam Hefner, M. M. Hines, L. E. Maddux, Logan A. Baker, A. L. Carlile, Aubra C. Cranfill, Thurman E. Gentry, G. L. Mouroney, J. T. Morgan, R. E. Morton, Franklin Nugent, Douglas L. Orme, George W. Phillips, E. W. Richardson, W. L. Sandridge, J. D. Sitchler, V. A. Whittington, and H. L. Weeks.

Each of these employes are allowed a month's pay or a vacation as an additional award, and they are allowed to take it anytime they wish.

For employes who serve 15 years, a newspaper feature is prepared. The picture made for the article is reproduced twice, one copy going to the employe and the other going to President R. L. Tulett.

A Portrait Of Progress



COSDEN PETROLEUM CORPORATION . . . is very deserving of congratulations and appreciation on their 25th Anniversary of successful operations in West Texas.

State National Bank Of Big Spring

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Cosden

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Cosden Petroleum Corporation was only a name twenty-five years ago. Yet, in these few years it has grown to become synonymous with "quality in petroleum products."

There are many reasons for this. But perhaps most important is the fact that Cosden has never been content to stand still. There has

always been movement . . . activity . . . growth. Research and development . . . seeking and finding new and better ways of making new and better products . . . has been a ceaseless activity. The accomplishments of yesterday have been the stepping-stones to the even greater achievements of tomorrow. There is little wonder that this constant building has lifted Cosden to a prominent place among the leaders in the petroleum industry.

We are proud to have worked with Cosden . . . to have had a part in their remarkable growth and expansion . . . and to join in tribute to them on the twenty-fifth anniversary of their founding.

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Otto Peters Pioneer In Safety Programs

Otto Peters Sr., refinery purchasing agent, was instrumental in introducing the first safety program into Cosden Petroleum Corporation operations.

And he is generally referred to as the dean of West Texas first aid instructors.

Peters has become widely known since his arrival in Big Spring back in 1934, when he was employed as operator of Cosden's absorption plant.

Not only has the elderly purchasing agent taught a number of Cosden employes in the art of first aid application, he has also conducted a number of area classes. The American Red Cross has given him every possible honor for his efforts.

Because of his knowledge in the field of first aid, Peters was made a part-time safety director of Cosden between 1938 and 1941. And during the early war years, he taught a number of government sponsored safety classes under the sponsorship of Texas Technological College.

The courses he taught were long and involved, each consisting of 96 hours. Several of his students were subsequently hired as industrial safety directors.

Peters was in charge of the absorption plant operations for four years after his arrival here in 1934. When the plant was discontinued in 1938, Peters was placed in charge of the warehouse.

In September, 1940, he was advanced to the position of purchasing agent, the post he now holds.

Peters was born in Karlsruhe, Germany, and he came to the United States with his family as a child of four. He was reared and educated in New York City, where he obtained his U. S. citizenship.

After graduating from high school he went to work for the New York Bell Telephone Company as an inspector. He worked for that firm for 11 years. Then he



OTTO PETERS SR.

moved to West Virginia and subsequently to Ohio.

In 1913 he met and married Jean Dorward of Delaware, Ohio.

It was after this that he went to work for a construction firm which was building casinghead gasoline plants. While in the construction business he took correspondence courses in stationary gas engineering and studied the operation of plants such as he was building.

Later he joined the Chestnut and Smith Corporation, specializing in gasoline plant operations. He received a number of promotions and in 1925 was made superintendent of the Harlow Gasoline Plant in Breckinridge. He remained in that capacity until joining Cosden.

Mr. and Mrs. Peters have three sons—Eugene, Otto Jr., and Huff—and five grandchildren.

Peters is a member of St. Mary's Episcopal Church and is a past president of the Rotary Club. In addition to teaching first aid courses he also finds time to play checkers—and has won several tournament titles.

25-Year Treater Vet Has 'Magic Finger And Nose'

When the Cosden refinery was just four months old Rufus Elmer Morton, age 28, got a job with the company. He worked in the laboratory for only two weeks then he went to the Treating Department where he developed through the years his "magic finger and nose."

With 25 years service to his credit, Rufus Morton has never been involved in a major accident. But he will probably always remember the time he attempted to aid a gauger who had climbed a tank and become gassed and tried to climb down again. The man couldn't hang on and fell. After Morton had brought him to, the man growled, "What did you hit me for?"

After coming to Big Spring from Ellis County where he was born, Rufus wasted no time in winning the hand of Bertha Lee Bailey, who sat across from him at his boarding house table and who worked with the telephone company.

In 1949 Rufus Morton bought a home at 118 Mt. Vernon, practically on the spot where he used to hunt quail. The Mortons have no children or pets, so Mrs. Morton continued her job with the telephone company becoming chief operator.

One of his claims to fame was the 62-pound yellow catfish he caught on a fishing trip with Bertha. This was no tall tale because he shared the cat with his neighbors.

His supervisor, Logan Baker, says, "Morton's finger can push into a suspicious, wet place, swing gently under his nose, and after two sniffs he can announce, 'Boys, the leak's in such-and-such a line.'"

He has trained some two dozen men in treating, developing in some, no doubt, the magic finger and nose.

One of the unforgettable moments (that seemed like an eternity to Morton) was in 1940 when he was working in the Treating



RUFUS E. MORTON

Department. There was no bathroom for the department and on a freezing day Morton went off duty at 4 p.m. feeling the need of a shower. He stripped to his "long-johns" and made a dash for the pumphouse bath about a half block away. He was about 30 yards from his goal when suddenly a transport truck ready to unload casinghead appeared. There was a woman in it. Morton desperately took refuge behind the only thing in view, a nearby tower. For 45 minutes he shivered while the truck was being unloaded.

If he caught a cold that day and took a few days off it was charged up to the just 30 days sick leave he has taken in all his twenty-five years with Cosden.

95,000 Acres Under Lease By Company

More than 95,000 acres of land are under oil and gas leases to Cosden Petroleum Corporation.

Bulk of the leases are in Texas, although Cosden has land in the Rocky Mountain sections of Colorado and Wyoming, and in New Mexico.

The leases held by Cosden cover 22,000 acres of "proven," or productive land and 83,000 acres near production and what Vice President Marvin M. Miller considers "good stuff."

Miller reports that Cosden has "excellent blocks" of acreage in Crockett, Winkler, Concho, Howard, Borden, Mitchell, Edwards, Andrews, Live Oak and McMullen counties in Texas. Several good blocks also are held in Colorado and Wyoming.

Of the 82,000 acres under lease to Cosden, 27,000 acres are in Colorado and Wyoming. The rest is in Texas and in Lea County, N. M.

PRODUCTS GO AROUND WORLD

Maybe Cosden is not quite like England on which the sun never sets, but Cosden products are sent to many points throughout the world.

It has been within the past three years that the company exported products.

Now, however, chemical products and asphalt specialties are sent to Mexico, England and the island countries of Puerto Rico, Costa Rica and others along the eastern seaboard.

Included in the exports are the BTX products, benzene, toluene and xylene.

The export sales are handled by Cosden agents in the various countries under the direction of W. K. Jackson, director of the chemical division, and R. O. Wilson, manager of the asphalt division.

Very Little Oil Processed Is Cosden's Own

Most of the oil produced from Cosden Petroleum Corporation's wells is handled in pipe lines other than Cosden's.

Reason for this is that most of Cosden's producing wells are in areas far removed from the refinery at Big Spring, where pipeline operations center.

Actually only 400 of the 23,000 barrels of crude purchased at the refinery per day come from Cosden wells, said R. W. Thompson, Cosden vice president in charge of pipeline operations.

Despite this low-sided figure, Thompson pointed out that there are no plans at present to extend Cosden pipe lines.

"Because of the availability of desirable crude oil in the fields of Howard and adjoining counties, Cosden has not found it necessary to extend lines into any other area," he said.

The vice president also pointed out that Cosden Pipe Line Company now maintains convenient connections with major company's trunk lines which provide quite a bit of crude.

Cosden's Leases In Many Places

A list of the places where Cosden currently is exploring for oil, or where leases are held, reads like a report on the operations of one of the so-called "major" oil companies.

Cosden is active in all sections of Texas and in New Mexico, Wyoming, Colorado, Montana, and Utah.

The company is producing oil in all areas of West Texas and has wells in Southwest, Central and North Texas. There also are Cosden wells producing in Lea County, N. M., and in Wyoming.

In addition, Cosden holds leases in Colorado, Montana and Utah. The exploration department also maintains files on potential leases in Nebraska, Nevada and other states.

Operations in the Rocky Mountain region are handled through Cosden's Denver office where Joshua S. Cosden Jr., son of the company's founder, is manager. A new field office recently was opened in Corpus Christi for the supervision of leasing, exploration, etc., in the Gulf Coast area. Jay Endicott, a new geologist with Cosden and an expert on Southwest Texas oil producing formations, is head of the Corpus Christi office.

Cosden also maintains an office in Midland, with Landman Bill Roden in charge.

Company Makes A Business Of Collecting Tax

Tax collecting is one sideline you wouldn't expect a petroleum refining concern to get into.

However, the Cosden Petroleum Corporation collects more taxes than many concerns pay.

Cosden finds itself in the role of tax collector in connection with state and federal gasoline taxes, state butane taxes, federal lubricating oil taxes, employee income taxes and federal old age benefit taxes paid by employees.

During the last fiscal year, Cosden collected \$7,464,832.32 in state and federal taxes.

With the exception of the employee income and FOAB taxes, all of the collections were from Cosden customers who paid the various taxes along with the regular price for the different products.

The tax collections included \$5,831,773.72 for the State of Texas, \$104,221.78 for the State of New Mexico, and \$1,528,836.82 for the federal government.

The collecting and transmitting of the various taxes to the proper governmental agencies is one of the functions of Cosden's treasury and accounting department. The tax work is integrated with other accounting and actually requires only a small percentage of the time accountants must spend in keeping track of the complex activities of the company.



To A Good Friend—

On A Great Occasion—

Congratulations and BEST WISHES

TRAILMOBILE

JIM IVY Inc. San Angelo, Tex.

Drink Gives Name To Pipeline Firm

Glenmore Pipeline Corporation, which piped Istan-East Howard Crude oil to Cosden's refinery here

for two years before it was absorbed by Cosden Pipeline Corporation had a unique distinction. It was named for a whiskey.

After the new pool reached sizeable proportions, Cosden sought to tap it for a source of supply. Officials organized a new company in 1936 to construct and operate the line.

As its incorporators closed the deal and then began to cast about for a name, Stanley Cosden, elder son of the founder of the com-

pany, gazed at the table. His eyes fell upon a favorite beverage of his. "Glenmore," he exclaimed in a burst of inspiration. And Glenmore it became. After reorganization of the company, Cosden Pipeline took over Glenmore in 1938.

OUR SALUTE to COSDEN PETROLEUM CORPORATION on its 25th Anniversary... We congratulate you, recognizing the giant strides forward which have been taken by the entire petroleum industry. Most of this tremendous progress has occurred during your 25 years... Good luck to you and our best wishes for a steady, healthy growth.

THE HARSHAW CHEMICAL CO.



Congratulations...

COSDEN

PETROLEUM CORPORATION

On 25 Years of Petroleum Progress

... We take great pride in having this opportunity to offer

Our Best Wishes to a Texas Pioneer...

H. W. SMITH TRANSPORT CO.

810 E. 2nd Street

Dial 4-7641

Congratulations... COSDEN PETROLEUM CORPORATION

(Twenty-five years of experience and service have established your organization in an enviable position in the petroleum industry. Republic Supply is proud to have had the opportunity to play a part in your advancement and we are looking forward to many more years of pleasant business association. We extend to you our congratulations on your twenty-fifth anniversary and wish you continued success in your future operations.



Republic Supply COMPANY



What makes a business great ?

You can't point to a man . . . or a quality . . . or an event . . . and say, with certainty, this is what made a business great.

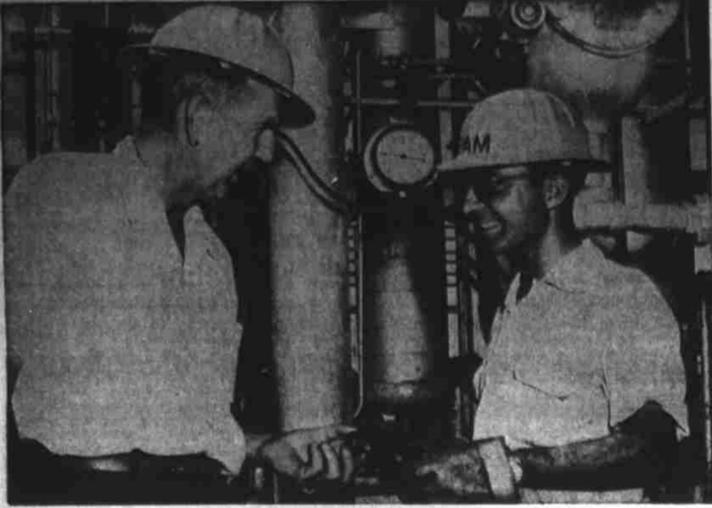
For greatness in a business comes from a combination of many things . . . of courage . . . ability . . . vision . . . competence . . . integrity. A great business is one that serves humanity . . . serves it well . . . always looking toward tomorrow . . . envisioning even greater accomplishments . . . greater service. It is never satisfied with the mediocre but sets its standards high and then seeks to exceed them.

Twenty-five years ago, Cosden Petroleum Corporation was just beginning to grow, and within its being were these very qualities . . . these essential ingredients . . . which have made it the really great business that it is today.

It has been our privilege to work closely with Cosden on many projects . . . to add our abilities to theirs in solving problems and achieving objectives. We are proud of this association.

And so, we are happy to add our congratulations to the thousands of others which this anniversary will bring.

UNIVERSAL OIL PRODUCTS COMPANY
 30 ALGONQUIN ROAD, DES PLAINES, ILL., U. S. A.
 Laboratories RIVERSIDE, ILLINOIS
 Universal Service Protects Your Investment



East Meets West At Cosden

Jack Smith, personnel manager at the refinery, visits with Mohammed Goll Darehshoori, of Tehran, Iran, one of Cosden's 623 employees. Darehshoori, known as "Sam" around the refinery and at Howard County Junior College where he is a student, came to this country to study petroleum engineering. He works in the chemical plant at Cosden's refinery.

More Than Half Of Cosden's Personnel Work At Refinery

There are 623 people currently employed by Cosden Petroleum Corporation, according to records in the personnel office.

More than half of these are men who maintain and operate the refinery. There are 249 of these individuals—147 in maintenance and the rest in operation.

The refinery also has 66 officials, such as engineers, foremen, superintendents, etc.

The corporation's general office in downtown Big Spring has 79 employees. This includes five general officers, 11 in management, 33 in the treasury department, 10 in office service, six in tank car traffic and 14 in sales and credit.

Other employees are in the various divisions of the corporation such as production, 24; geophysical, 13; pipe line, 28; geological, 5; land and leasing, 8; and marketing, 29. There are also 19 transport truck drivers.

The number of Cosden employees has increased considerably just in the past six months. On Dec. 1 last year there were 580 on the payroll as compared with the 623 now.

Three years ago there were 445 people employed by Cosden, and in the early part of 1941 there were around 375. The number of employees has more than tripled

since 1937 when there were around 200 working for Cosden, records show.

Most of the Cosden employees are in Big Spring, though five in the marketing division are stationed at Abilene. Six are in the marketing station at Orme, and one is at Odessa. Recently a new geological division was opened at Corpus Christi.



SAM HEFNER

Whole Career With Company

Practically all of Sam Hefner's business career has been spent in a variety of jobs with Cosden and his association with the company dates back to October 1929.

Hefner is a native of Fort Worth and attended school there, graduating from Stripling High in 1929.

His first job with Cosden was a clerk at Fort Worth in the traffic department. About a year later he was transferred to Big Spring and worked in the tank car and shipping department for a short time. He returned to Fort Worth and the traffic department in December 1930.

Then in 1936, he moved into the accounting department and was engaged as marketing accountant until September 1938. Then he took a crack at sales in 1940, when he was moved back to Big Spring and placed in charge of the bulk sales department.

In October 1946 he assumed duties as traveling sales representative, then was moved up to the position of manager of tank car sales department. He is now refinery chief clerk.

Mrs. Hefner is the former Miss Dorryne Gray of Fort Worth. The Hefners have a daughter, Mary Elizabeth.

Sam is a member of the American Business Club and of the Country Club where he puts in much leisure time at golf. Fishing is another hobby.

25 MORE IN KOREAN WAR

Third Of Cosden Personnel Donned Uniform In WW II

Approximately one-third of Cosden Petroleum Corporation's personnel saw military service during World War II despite the output of some war production by the refinery here.

In all there were 144 in service with only one fatality.

The Korean campaign saw 25 Cosden employees entering or recalled to service, and again there was one life lost.

Decorations were numerous, but none approached that of Lt. George O'Brien Jr., who in September 1953 was awarded the nation's highest, the Congressional Medal of Honor, at the hands of President Dwight Eisenhower. Before his association

with Cosden, he had been in the Merchant Marines during World War II. O'Brien took his degree in geology and became associated with Cosden. Meantime, he had become a lieutenant in the Marine Corps Reserve.

Hardy had he settled to his new job than the Korean War erupted and he was recalled to active duty. It was in September of 1952 that he led a charge which earned him immortality on the field of battle and the Medal of Honor. Although wounded and repeatedly knocked down by concussion, he rallied his platoon for a charge up a ridge on the Hook, north of Seoul. The fire was so intense that none could see how the men could come

through it, but he won the crest and the objective. Once there, he would not leave until his men had been evacuated. Before long, he returned to battle and repeatedly saw action until recalled just before an armistice was struck.

Lt. Leonard Skiles, who had worked at the Cosden plant here and then went to Hobbs, N. M. to represent Cosden, was with the ill-fated New Mexico National Guard unit which was caught in the battle for Bataan. He was captured when Corregidor fell and was taken prisoner. However, he contracted a throat infection and with lack of medical attention, his condition worsened and he died.

In the Korean War, Jesse B.

Perkins, son of Mrs. Edna Perkins, was reported taken prisoner in May of 1951 when the Chinese Reds overran an American position. A Baytown soldier wrote Mrs. Perkins that he had seen her son taken off to prison camp. However, later word came that he had been killed. His body was returned here in 1952 for final rest.

Cosden also contributed women to the military service.

Ranks of personnel in the military varied from buck private to lieutenant-colonel in the Army and Army Air Force to commander in the USNR.

After World War II, 90 per cent of those serving returned to their jobs with Cosden. Of the 25 who went into service during and after the Korean campaign, 10 have returned, one was killed, and the balance are still in service.



A. L. CARLILE

A. L. Carlile 25-Year Man In December

West Texas has always been home of Allie L. Carlile. He was born in Coke County, moved with his family to Hamlin when he was a lad of 12. He attended school there. Later he farmed in the Hamlin area.

In December he will have been with Cosden exactly 25 years. He started with the company as a still cleaner.

He moved into operations of the stills in 1933, and has been at that work ever since.

Carlile was married to Miss Edith Mamie Thompson of Hamlin in 1923. They have three sons, Elwood, Robert Lee, and Billy Wayne.

The Carliles own their own home at 910 E. 8th St. and attend the Trinity Baptist Church.

Carlile makes his work his hobby and he also puts to good use his old skill as carpenter by helping his friends with "odd jobs" and repair work around their houses.

To The



PETROLEUM CORPORATION
Our Sincere

Best Wishes!

PARK INN

Old San Angelo Hwy.

Dial 4-9051

**CONGRATULATIONS
TO
COSDEN PETROLEUM CORP.
ON THEIR
25th ANNIVERSARY**

Rand McNally and Company

NEW YORK

CHICAGO

SAN FRANCISCO

5,000 CHECKS PER MONTH

If you enjoy signing checks, you should be Cosden's treasurer.

A. V. Karcher, secretary and treasurer for the company, signs his name to about 5,000 checks each month. Expenditures represented by the checks amount to about \$5,000,000 per month, Karcher said.

Not included in the total is the approximately \$900,000 in dividends paid to Cosden stockholders annually. Dividends are paid quarterly to about 2,700 stockholders — another 10,000-plus checks which are issued by the company annually.

The dividend checks are distributed from New York, however, by the Guaranty Trust Company, on information supplied by Karcher's staff.

Checks are issued in payment for crude oil, other operating supplies, equipment and materials, utilities, wages, royalties, rentals and a host of other expenses.

Our Best Wishes
for the

Cosden

Petroleum

Corporation

WILSON
Auto Electric Co.

408 E. 3rd

Dial 4-8721

Congratulations

COSDEN

On Your

**25th
ANNIVERSARY**



T. H. McCann, Jr.
Agent

Cities Service Oil Co.

501 E. 1st

Dial 3-2431



Congratulations

to Cosden on the progressiveness they have shown in the past 25 years. They have been a tremendous asset to their community and nation.

It has been a pleasure to be of service to such a great organization.

Charles Campbell, Cont'r.

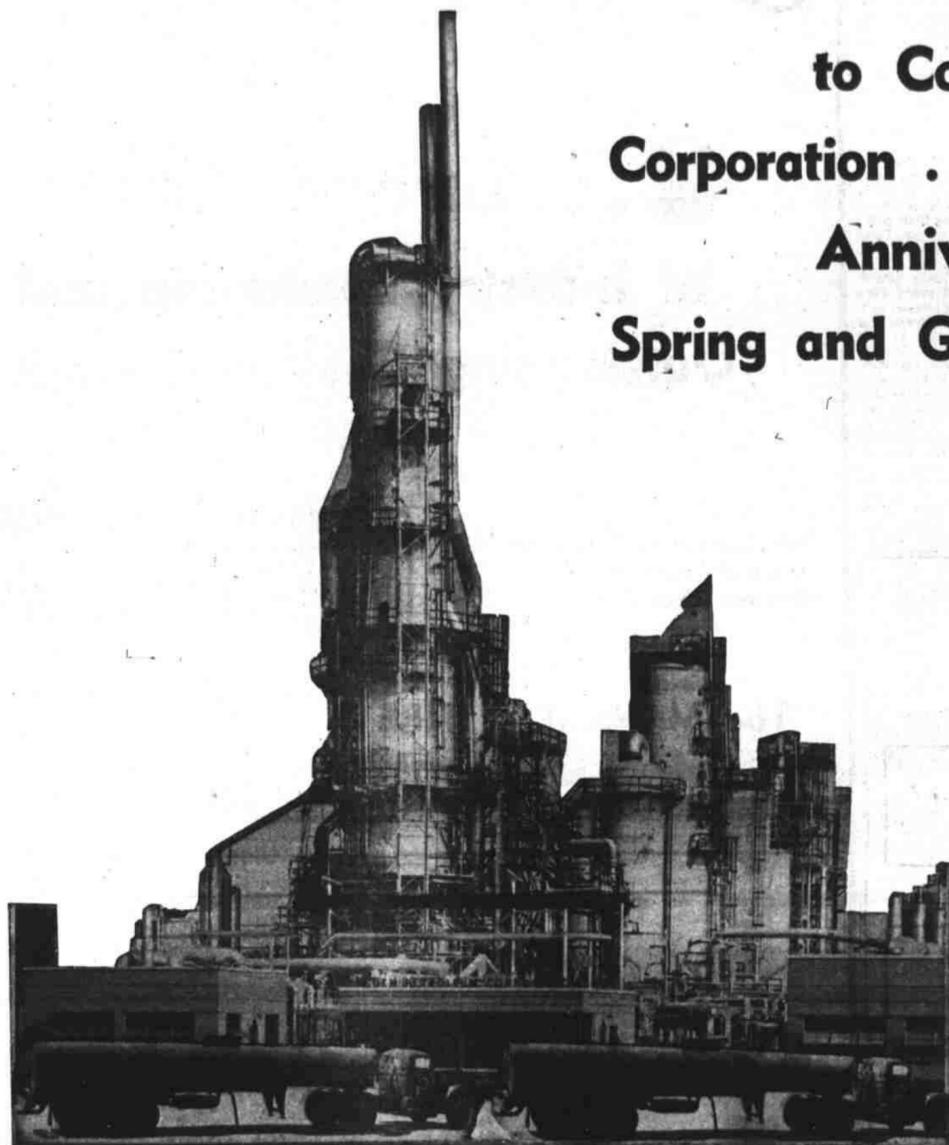
General Concrete Work

400 Abrams

Dial 4-2407

Congratulations

to **Cosden Petroleum Corporation . . . On Your 25th Anniversary. Serving Big Spring and Greater West Texas . . .**



Our hats are off to **COSDEN** for its twenty-five years of petroleum progress . . . Since 1929 you have been serving and growing with West Texas. Outstanding progress has been made during these years. We salute you during your twenty-fifth anniversary observance. You have shared in the growth of our area and are to be commended . . .

we are

proud . . .

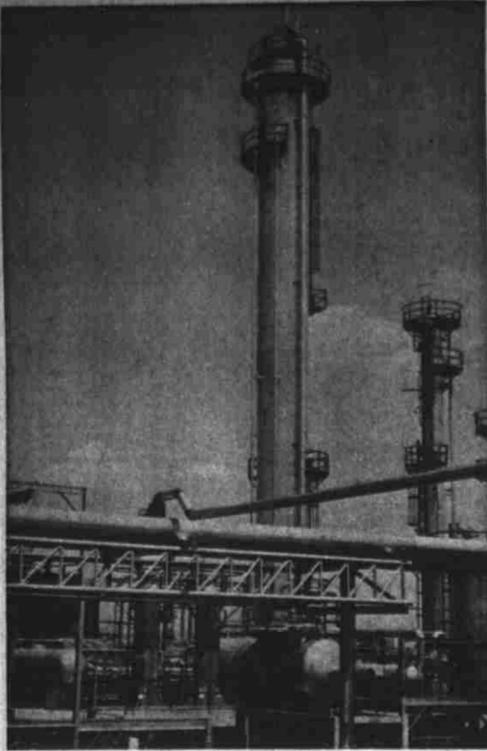
of the part we play

in Supplying Service to COSDEN

PETROLEUM CORPORATION

C & R Transport Co.

BIG SPRING, TEXAS



Plant Addition

Latest addition to the Cosden refinery is the alkylation unit which went into operation for the first time July 7. Some of the towers and other structures of the unit are shown above. The alkylation unit upgrades gasoline by putting gasoline molecules together to form larger molecules. Result is an improved fuel.

Stop-Over Here In 1929 Meant Job With Cosden

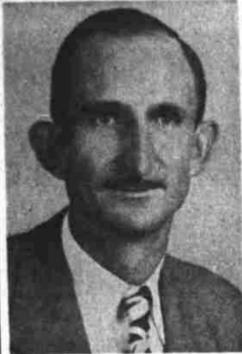
Because William L. Sandridge stopped in Big Spring to see a friend back in August of 1929 he is now a 25-year man with Cosden. Sandridge had farmed in Oklahoma until in 1928, he started tank building work and this took him to various locations over the Southwest. The friend he stopped to see in '29 was working at the Cosden refinery and told Sandridge that he, too, could find employment here.

He started as a boiler maker, later was made a boiler fireman and then went into the operating department where he worked for 10 years. In 1947 he was given a painter's job and worked up to his present position of combination painter.

Sandridge was born in Delta County, Texas, but spent his younger days in Sulfur, Okla., where he attended school.

He was married to Miss Ola Duncan of Delta County Sept. 23, 1922, and they have three children, Hollis, Margie and Doretha.

Sandridge is a member of E. 4th St. Baptist Church. He goes in for sports as recreation, likes golf especially and for less-active diversion prefers croquet and checkers.



BILL SANDRIDGE



L. E. MADDUX

Liked Cosden 25 Years Ago

L. E. Maddux accepted employment with Cosden 25 years ago because, "I decided it was the best company for advancement and I liked West Texas."

He has worked at the refinery as fireman, crude stillman, pressure stillman, shift foreman and still foreman. In the latter capacity, he now is in charge of four operating units.

Native of Goliad, Maddux was reared there and finished high school there. For two years he worked with the Kenedy Sheet and Metal Works at Kenedy then joined Marland Oil Company at Texas City in 1925. Next he went with the Terminal Oil Company of Texas City, working up from general slunky to gauger and fireman. Then he moved to the Petroleum Conversion Corporation at Texas City as crude stillman. In 1928 he went to work for Motor Fuel Products Company at Laredo. From there he made the change to Cosden.

Mrs. Maddux is the former Miss Doyle Minnie Yarborough of Texas City. They have a daughter, Patricia Lynn. The Madduxes home is at 1201 E. 16th. They attend the Methodist Church.

Maddux is a member of the Big Spring Masonic Lodge, Commandery and Shrine. He goes in for gardening, but lists fishing and hunting first on his list of hobbies.

Billing Complicated By Tax Adjustments

One of the most tedious and complicated tasks faced in the operation of a company like the Cosden Petroleum Corporation is the billing of customers.

It's complicated because a concern no longer simply sends his customer a bill for the goods delivered. Billing clerks must calculate the amount of taxes due on the shipment, and collect for those also.

For instance, in billing a customer for a load of gasoline Cosden's billing department has to figure the amount of state and federal taxes due on the gasoline. This is further complicated by the fact that different states have different gasoline tax rates.

Also, some states set their taxes at so much per gallon, while others tax the product by the pound.

Another adjustment billing clerks have to make in preparing their statements of charges involves the temperature reading outside. Because the volume of petroleum products varies slightly with changes in temperature, all shipments must be "temperature corrected."

If a shipment of gasoline is loaded out at 90 degrees, the volume of the product must be adjusted to a 60-degree mercury reading. This is done in the billing department, where clerks maintain charts by which the temperature corrections are made.

Nugent's Process Didn't Catch On, But Speedy Did



FRANKLIN NUGENT JR.

When R. L. Tollett, Cosden president, handed Franklin Nugent Jr. a bank account for a month's paid vacation in point of his 25-years of service with the company, Nugent had no ready answer. He and Mrs. Nugent and daughter, Mary Ann, wanted to take their time in planning it.

"Speedy" as he has become known because of his easy manner, came here in 1929 with his father, who had an interest in a process which was supposed to convert sour crude into sweet oil. Josh Cosden, who was putting a refinery at Big Spring, agreed to look at it so Speedy came along with his father to make the set-up. The process didn't stick but young Nugent did.

Born in Maxwell, Neb., Nugent lived also in Wyoming, Texas and Louisiana before arriving here from Shreveport.

At the beginning he was a laborer, digging ditches, cleaning stills, pouring concrete. He was transferred to the electric department as a helper.

He studied as he went and built up his store of electrical knowledge from experience. His steadiness won him a series of promotions climaxed by that of being placed in charge of all electrical and instrument work at the Cosden plant in 1946.

He has been a member of the Lions Club and was a charter member of the Toastmasters' Club and has for years been in the Chamber of Commerce. In spite of his nickname he is a busy individual, operating a business (Speedy Reproductions) downtown and has, on

occasions, made a hand on a farm in the Cauble community.

He is married to the former Maurene Leatherwood. She now says that she didn't know that Speedy had been playing golf since he was 15 or she would not have agreed to be his "golf widow."

Congratulations To COSDEN

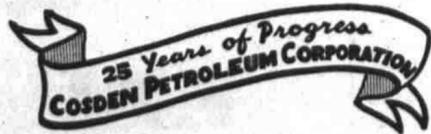
On 25 Years Of Service

Pacific Electric Manufacturing Corporation has been furnishing dependable oil circuit breakers and air-break switches to the Big Spring and West Texas area for more than a quarter of a century.

Curtis Musgrove Company
REPRESENTATIVE
1505 Fidelity Union Bldg. Dallas, Tex.

Sincere Congratulations

For



Your Progress In The PETROLEUM INDUSTRY

Has Helped All Of WEST TEXAS

S. P. Jones Lumber

Distributor For

OIL FIELD SUPPLIES

409 GOLIAD

Congratulations to COSDEN

For

25 Great Years of Industry Leadership and Outstanding Customer Service

From



The pioneers of famous "Lo-Temp" Cold Rubber that gives you up to 35% More Mileage.

The MANSFIELD TIRE & RUBBER COMPANY

MANSFIELD, OHIO

Congratulations COSDEN



ALL PETROLEUM PRODUCTS

GENERAL OFFICES
820 Oil & Gas Building
Wichita Falls, Texas
Phone 2-5421

SALES OFFICES
Bryson, Texas
Phone 38



Packaging Asphalt

Two workmen in Cosden's asphalt plant package the tar substance for shipment. At the valve is Bill Steagald. Richard Laswell holds the cylindrical container in which the asphalt is packed.

Basketball Team Brought Baker To Company

Logan A. Baker, who will mark his 25th year with Cosden in August, was attracted to the company because of basketball.

In the formative days of the Cosden Big Spring Plant, employee activities included emphasis on a semi-professional basketball team.

He went to work in the maintenance department and was there about six weeks when he was transferred to treating. In a few years he became a full-fledged treator and later was promoted to his present job as foreman over the pumping and treating departments.

His interest in sports has never lagged. He has been a member of most of the Cosden Otter baseball, softball and basketball teams and later served as coach and manager of the Cosden basketball squad.

Baker was born in Plattsburg in the "Show Me" state, but moved to Rush Springs, Okla., with his family when he was just a child. He went to school there and married Miss Oma Joy Wood of Rush Springs in 1925.

The Bakers have a son, Woody, who is a student at Texas Christian University.



LOGAN BAKER

Vice Presidents In Charge Of Drilling And Production

Two vice presidents of Cosden Petroleum Corporation steer the exploration and production departments.

R. W. (Stormy) Thompson is vice president in charge of production and pipelines, and Marvin Miller is vice president in charge of leasing and exploration.

It is Miller's job to acquire the leases on which drilling operations will be scheduled. All of Cosden's geological and geophysical work



JOHN T. MORGAN

Morgan Veteran In Traffic Work

John T. Morgan, Cosden's assistant traffic manager, has had long experience in the freight traffic field. To prove it he is a practitioner before the Interstate Commerce Commission.

August will mark his 25th anniversary with Cosden. He joined the company as a billing clerk. The following year he was transferred to Fort Worth as traffic clerk, then returned to Big Spring in December, 1939 to serve in the capacity of assistant traffic manager.

He was born in Denton County and reared in Fort Worth where he was graduated from high school. Upon graduation he went to work in the freight offices of the Southern Pacific Lines in Fort Worth. In 1927 he joined the Universal Car Loading and Distributing Company as office manager. He left that concern to join Cosden.

On June 1, 1930, he married Miss Florence Clark. They have a son, Larry.

Morgan is a past president of the American Business Club, has served on the board of directors of the Big Spring Country Club. He is still active in both organizations. He is a member of the Church of Christ and of the Masonic Lodge. Golf is his favorite diversion.

centers from this exploration department.

Branch offices of the exploration department are maintained in Denver, Colorado, and in Corpus Christi for the Southwest Texas area.

Once the exploration has been completed and leases effected, it is time for Thompson's production department to take over. It is this department's job to drill a well prospector in hopes of finding oil.

The production department supplies all the equipment and personnel necessary for drilling the project scheduled and handles all the Railroad Commission permits and records.

Forsan Boom Stopped Trip To California

On the occasion that Garrett Lewis Monroney thought he was just "passing through the Lone Star State" fate willed it otherwise.

"Mun" Monroney, Mrs. Monroney and their three small children stopped at a tourist court in Big Spring one night in February 1929. A veteran of Army railroad service in Europe, in World War I, he had heard there was land open to veterans for homesteading in California. It was "California here we come," he thought.

Leaving Mrs. Monroney and the kids at the court, he wandered into downtown Big Spring and there he first heard of the "Forsan Boom." He asked questions of others and of himself. He'd been a lot of places and seen a lot of things—Why not Forsan, too? Everyone was consulted except Mrs. Monroney.

So he headed the California-bound Chevrolet for Forsan and before sundown had hired himself out to the Cosden Petroleum Corporation.

The Monroney family's first home was a tent. Sand had been sifting in for weeks and months. Mrs. Monroney saw it in the light of a kerosene lantern. She looked and screamed, "It's got a dirt floor!"

Maybe Edna Monroney finally let him get bedded down that night, and then, on the other hand, maybe it was three or four days later before he ever got any rest. But anyway, they finally got settled, and by carrying the automobile seats inside for the children to sleep on every night, they managed to make themselves as comfortable as possible.

Even so, that accomplishment didn't drain away all his courage, because later when they had moved to one of the company houses there was the time when Mun, with a hatchet and backsaw

and the help of Blackie Hines—cut up a goat for a barbecue, using Edna's kitchen cabinet top for a chopping block. The next morning Mun and Blackie tried to explain to her how it was that a burglar must have gotten in the house during the night, chopped up that cabinet and sawed a corner off the top.

Mr. and Mrs. Monroney were born in Illinois. They still call Mun a dymyankee. Their children, one of whom they lost, were also born in Illinois.

In 1930 the Monroneys were transferred by Cosden to Bee County where they remained until 1938 before returning to Howard County and finally to a residence at the refinery.

Mun's experience in the petroleum industry has been general and varied. He has well known the 12-hour day in many different jobs.

His favorite dishes are barbecued chicken and cherry pie. His hobbies are hunting and fishing, and helping Blackie Hines barbecue goats.



GARRETT MONRONEY

Helped Build Refinery Here

Although Aubra Cranfill will become a Cosden 25-year man in December, his connection with the company goes farther back than that because he helped build the refinery while he was in the employ of the Graver Construction Co.

A year after that work was completed he came back to Big Spring to join Cosden. He worked in the yard for three and a half years, at the loading rack for three years and is now an operator in pumping and treating.

Cranfill is a native Scurry county but he received his schooling in Mitchell County. He was married to Miss Minnie Mays of Coahoma in 1930 and they have a daughter, Wanda. The Cranfills own their home at 409 Park.

Cranfill is a member of the Church of Christ, has served as elder and song leader. For recreation, he puts fishing first on the list.



AUBRA CRANFILL

TOWER OIL COMPANY

Dallas and Irving, Texas
CONGRATULATES

COSDEN

We Are Proud To Be A Jobber
For This Fine Company

BEST WISHES
CONGRATULATIONS
GOOD LUCK

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We Are BEAMING

Best Wishes To
COSDEN
PETROLEUM CORPORATION
On Its
25th ANNIVERSARY
KBST
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Congratulations
and
BEST WISHES TO
COSDEN Petroleum Corporation
25th Anniversary

It has been a pleasure to be a business associate with Cosden Petroleum Corporation in the past years.

Pictured at right, is an Underwood Electric Typewriter which is used extensively throughout their offices . . .



. . . for Machines, Furniture and General Office Supplies : . . See

Hester's Supply Co.

114 East 3rd St.

Dial 3-2091

Research-Development Dept. Looking Ahead

Cosden Petroleum Corporation maintains one department primarily to be dissatisfied with what Cosden is doing.

It is the research and development division. From its restlessness to find better ways of doing things or to anticipate new markets and come up with new products have come some \$7 million in new plant investments. These have been paralleled by the creation of scores of jobs and demand for raw materials.

Heading this sensitive division is W. K. Jackson, whose business it is to be a practical dreamer, economist, designer and salesman. In close consultation with him is Dewey Mark.

In Jackson's view, Cosden's research has little of the academic connotation of following a scientific nose to uncover new miracles on untraveled paths. He emphasizes the development angle. This in-

volves starting with raw material to see what can be done to market the raw material or to convert it to something else with more demand or more value.

Frequently this entails development of new markets for something Cosden believes it can make. It involves the factor of advantages in raw materials with manufacturing skills. A point of beginning may be in raising the question of how much raw material there is. If the material can be changed, glass models in the research laboratory may indicate what changes can be expected. When this offers promise, a pilot (miniature) plant is constructed out of steel and similar materials. From it may come information on economic factors, heat and pressures required, anticipated yields, and design.

There are many notable examples of how the division has functioned. One series of studies led

to the development of the right type of oil for carbon black manufacture (and the establishment of Cabot Carbon's furnace-type plant nearby). Still another resulted in extraction of cresylic acid and mercaptans. Others in time unfolded in the BTX (benzene, toluene, and xylene), the alkylation, and asphalt units.

By no means all studies of the division produce results. Promising leads frequently fade. When ideas bear fruit in the laboratory and are put on the drawing board, the project may find its way into the drawer.

This is important—probably one of the more important functions of the division—for Cosden's penchant for leadership has made management alert for a new perch upon which to land when an older and more conventional one is vacated for sound reasons. A case in point is the asphalt plant. Long before Cosden plunged boldly into this field, the plans were carefully prepared and ready for execution. Research and development was convinced of the practicability of the BTX operation long before it blossomed.

The division does far more than keep its nose to the chemistry of hydrocarbons. Indeed, it is equally diligent in keeping a hand on the economic pulse, current and potential; on service and freight rates; on market potentials; on trends.

When a new process or product results, the division inherits its brain child as an operative charge. However, when its output reaches the stage that it can be logically integrated into the refinery or petrochemical plant operations, research and development happily turns operation to regular forces.

This is definitely a field of endeavor in which profits maintain the score sheet. Its personnel, however, is spurred by the knowledge that although development is inherently competitive nobody loses because the competition is against nature. There is an intellectual satisfaction as well as one of having helped create new jobs.

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Thesis Devoted To Operations Of Personnel Dept.

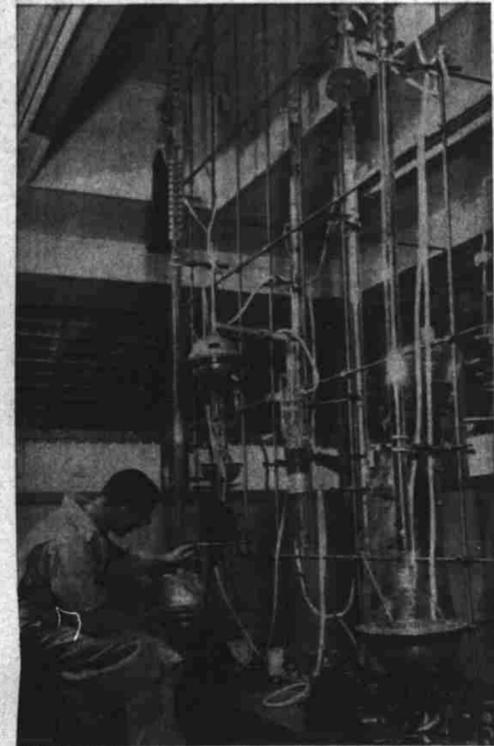
The personnel department of Cosden Petroleum Corporation was the subject of a thesis recently written at Texas A&M College.

The thesis was written by Robert J. Blum, son of Mr. and Mrs. Joe Blum, 1501 Stadium, and it outlined the many employee benefits provided by the corporation.

Blum has completed his college work since submitting the thesis and he is now stationed with the Air Force in Alaska. He made a grade marking of "A" on his work.

The thesis cited Cosden as having an excellent personnel program and praised Jack Y. Smith, personnel manager, for its development. The thesis was dedicated to Smith, who provided a great deal of the information.

Phases of the personnel program with which the thesis deals include labor relations, group insurance, recreation, pension, safety, medical service, health benefits, vacations, pay for sick and injured, vacations, etc.



Plant In The Embryo

Research plays a key role in the affairs of Cosden Petroleum Corporation. Once a project is selected and a course of action determined, it is taken into the research laboratory where plants or parts of plants are constructed out of glass and light weight metals. From these, such as above, come a lot of answers to problems. This information is used as the basis for constructing a pilot plant, and findings here point the way to the ultimate type of facility which may produce some new product for Cosden.

Dividing Royalty Interests Runs Into Tedious Work

The man who buys a 5-1280ths share and provide all of the own-royalty interest in 160 acres of land some place may not realize it, but he's complicating things for accountants in the Cosden offices, or for some other oil company.

For, if that land is producing oil, the holder of that 5-1280ths interest receives only 5-1280ths of 14th of the revenue from the sale of the oil. Accountants must figure out his share of the royalty and prepare his royalty check.

You can see how involved the crude oil payments could become if that 160 acres was divided among 190 or more royalty owners. Instead of making out one check for oil coming from the particular lease, the accounting department is obligated to calculate the various

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Big Outlay In Office Machines

Equipment used in "keeping books" on the Cosden Petroleum Corporation ranges all the way from pencil sharpeners to complicated business machines that almost think.

More than \$160,000 has been invested by the company in the office machines and furniture for the treasury and accounting department which occupies practically the entire third floor of the Permian Building.

More than 100 office machines of the various types—calculators, adding machines, typewriters, posting machines and IBM equipment—are used in the accounting department. Majority of these are typewriters and the more simple calculating devices. However, some of the calculating machines run as many as 15 totals.

In addition to the \$160,000 invested in office equipment, Cosden leases four pieces of International Business Machines equipment. Rental paid on this IBM equipment is about \$800 per month.

Permanent records are "punched" on cards on IBM machines. From this point on, handling of the records is almost entirely accomplished mechanically. In addition to the key and sum-

Extraction Processes Leave Very Little Besides An Odor

It used to be said that an efficient slaughter house saved every part of a hog and a cow except the squeal or the moo.

Cosden Petroleum Corporation even saves part of the "squeal" from the crude oil it processes.

About the only "waste product" around the Big Spring refinery is hydrogen sulphide, which has a certain rotten egg odor. However, Cosden vents it through a hot stack which decomposes the gas and virtually eliminates the odor. Crude tanks now have floating tops so that there is little vapor to escape from sour crude and contribute the gas. Actually, what odor might arise from the plant occurs from reprocessing of water. The aroma here is quite like carbolic acid.

Were the volume sufficient, Cosden could process the hydrogen sulphide to extract the sulphur. There are four such plants operating in West Texas.

All odors aren't vented by any means. The plant extracts the mercaptans from gasoline. If left in

the gasoline, mercaptans would give it an objectionable odor. Removed, they are marketed principally as deodorants for natural and liquefied petroleum gases.

Aromatics are, by means of the platforming unit, extracted and the remaining fuel reformed in an upgraded product. The aromatics are marketed as benzene, toluene and xylene at considerable greater value.

There are a few other gases around the refinery—low pressure gases from distillation—which are compressed. Liquid content is recovered and the remaining portion is used for fuel. Some material also is lost in the cracking processes, but this too finds its way into the heating equipment as a fuel.

Congratulations...

to COSDEN on their
25th ANNIVERSARY
... and Best Wishes toward
continued success.

Oakite Products, Inc.

Best Wishes!

COSDEN

PETROLEUM CORPORATION

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Petroleum Progress ...
Our SERVICE Is Like
Your GASOLINE ... When
Better Is Made ...
We'll Have It ...
"WE GIVE S&H GREEN STAMPS"

THE Men's STORE



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Dial 3-2054

to an Outstanding Organization ... for a Quarter

COSDEN

Century of Continuous Progress

We Wish to Offer Heart Felt ...

Congratulations

and Best Wishes

COSDEN

Petroleum Corporation



MERCURY

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With the Compliments of ...

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WE SALUTE

COSDEN

PETROLEUM CORPORATION

On

25th ANNIVERSARY
BIG SPRING DRUG

317 Main

Dial 4-4751



Big Spring Daily Herald

COSDEN EDITION

BIG SPRING, TEXAS, SUNDAY, JULY 18, 1954

COSDEN EDITION



Cosden Fleet

A big fleet of trucks, pickups and automobiles is required to carry on the operations of Cosden Petroleum Corporation and distribute its products. Some of the big gasoline transports and vans, above, line up to be loaded. Cosden has 15 gasoline transports and more than 100 other vehicles, but most of the refinery's output is hauled away in customer trucks and common carriers.

Big Transport Fleet Includes Cars, Airplane

"Keep 'em rolling" is the motto of W. T. Abbott, manager of the transportation department of Cosden. He finds that fulfilling it is a full time job.

Included in the company fleet are over 100 automobiles, pickups, trucks and 15 gasoline transports. According to R. M. Johnson, coordinator of sales, having a fleet of gasoline transports lends to flexibility in handling incoming blending materials and outgoing finished products at the refinery.

The transports Cosden maintains are but a small part of the truck transportation needed to move products from the refinery and Cosden's terminals. A vast majority of the trucks which haul Cosden products are common carriers and customer operated transports.

Perhaps the latest addition to the transportation department is the company airplane, a six passenger DeHavilland Dove, which is used for executive travel as well as for ferry flights.

Operating the plane are W. K. Edwards, pilot, and J. T. Wilkinson, co-pilot.

To Compute Freight Rates, You Have To Be An Expert

Douglas Orms, Cosden's vice president in charge of traffic, has an easy formula for computing rates: Get an expert.

Expert is the definition he applies to J. T. (Jake) Morgan who has been figuring rates for approximately 20 years. Besides being able to find his way around through a maze of indices and columns, Morgan has to be an authority on United States geography, railroads and freight bureaus.

Most rate computation starts with a knowledge of territories and which rate bureau would issue schedules for that territory. But there are exceptions for numbers of roads have what is known as "individual line issues," and here these quotations must be taken into account. Another point of beginning is knowledge of whether the product fits under commodity or class rates.

Figuring such a "simple" thing as rate on a carload of lube oil from Bayonne, N. J. to Big Spring can grow terrifically complex. In this case Morgan immediately thinks of the Trunk Line Tariff Bureau. He goes to a row of files, opens one and extracts a book from a stack. This one cites rates from that territory into Texas and Louisiana. By using indices and keys, he is able to obtain a base rate of 91 cents cwt.

Contrary to expectation, the merry-go-round has only begun at this point. It is determined, through phenomenal memory or reference, that Ex Parte 162 before the Inter-

state Commerce Commission granted an increase which raises this to \$1.11. Ex parte No. 168 is applicable, so another raise makes it \$1.39; so is Ex Parte 168 which brings it to \$1.52.

While you catch your breath, another 15 per cent is figured in under Ex Parte No. 175, which makes it \$1.75. Before you assume that this is it, add another three per cent to cover transportation tax. That simple haze of 91 cents has become \$1.746 cents.

If the rate is to be figured the other way around, another tariff bureau—this time Southwestern—has to be consulted for applicable rates from Texas to New Jersey. Moreover, if the shipment is something other than conventional petroleum products, another base of computation would be in order. Should it be less than a carload, then this is clearly a horse of another color.

Figuring class rates is so complicated it would be futile to cite an example here.

There are many pitfalls. One is that bureau territories are frequently sub-divided. Another is the aforementioned individual line issues. Still another is the matter of routing for some lines will not accept intermediary handling. Sometimes quotations must be to some key point such as St. Louis or Chicago, and then to a variety of destinations—each of which may be in a different territory or sub-division. Sometimes destinations are not readily reflected in tariff schedules.

Questions of law frequently arise. The department library bulges with case after case decided by the ICC. If a rate seems unreasonable, the traffic department may lodge a complaint with the carrier. If no relief is granted here, then the case goes to the ICC for a decision. Even this ruling may be appealed. Should the complaint be sustained, reparations for the interim shipments are paid.

The work is exacting. The slightest fraction can make a big difference. One recent case change in a terminal point resulted in a .0032 difference. Yet, applied to the volume of shipment, this amounted to more than \$5,700.

Not infrequently, there are options on rates. This is not unlike the short and long form under income taxes. Occasionally, by going the long way around it is possible to come up with better rates. A recent case showed a difference of 9 cents CWT on a material to Amarrillo. It's the expert's job to find these bargain alternatives.

Gasolines Range From Top Aviation Grades

Four types or grades of gasoline are manufactured by Cosden at the refinery east of Big Spring.

They range from the "white" straight-run gasoline to the highest combat grade of aviation gasoline. Cosden's aviation gasoline is shipped from Big Spring to Carswell Air Force Base, near Fort Worth, as fuel for the giant B-36 bombers based there.

The manufacture of a good grade of gasoline isn't the simple process it used to be when crude was heated to the gasoline boiling point and gasoline vapors were drawn off and condensed.

At Cosden, as in other modern refineries, gasoline production is by a combination of processes, many of them extremely complicated. Molecules of the raw materials are broken down, rearranged and reconstructed in some of the cracking and re-forming processes.

blended, tetraethyl lead inhibitors and dyes are added to form a fuel suitable for modern high compression automobile engines.

Gasolines from the catalytic cracking unit, the Dubbs thermal-cracking unit, the polymerization plant and the platformer are blended with natural gasolines and straight-run gasoline to form the regular and premium grades of fuel. Quantities of the various types used, along with the amount of tetraethyl lead, determines the grade of the finished product.

Tetraethyl lead is added to all of the blends. Use of the lead compound requires the addition of a scavenging agent, which prevents the formation of lead deposits inside internal combustion engines. The scavenging agent is simply a chemical which reacts with the lead to form a compound which can be ejected with other engine exhaust gases.

straight-run, or distilled, variety. The others are blends of three, four or five types of gasoline in different proportions.

Blending is accomplished in huge tanks in which the various components are thoroughly mixed by agitation or by being whipped through huge circulating pumps. Dyes are added here, also.

The Cosden regular has an octane number of 85.5. Premium's octane number is 95.5, while the aviation gasoline produced here has a "performance number" of 115-145, which means a grade of 115 by lean mixture rating and 145 for the rich mixture rating.

The Cosden refinery turned out 4,304,106 barrels of gasoline during the past fiscal year (ending April 30). That's a production rate of about 11,792 barrels—or 495,264 gallons—per day. Over 24,000,000 gallons of natural gasoline were blended in finished motor fuel.

Octane Number Has Climbed 50 Per Cent

The cat-cracked gasoline that Cosden sells today was not always on the market.

Long time residents will remember when 60-65 octane gasoline was the top quality manufactured by the local refinery—but then it was comparable to most fuel on the market.

As the years moved along, new equipment was added and the octane was increased to 70-72.

Today, Cosden manufactures 95 plus octane gasoline.

Beginning with a small "skimming and topping" plant 25 years ago, the company has grown into one of the largest independent inland refineries.

A catalytic cracker, built in 1949, a Dubbs thermal cracker, the polymer gasoline plant, a platformer-undex plant and the alkylation unit, completed this year. This unit will turn out 145 grade aviation gasoline.

From these units come a variety of products. Among them are, of course, gasoline and kerosene. Also manufactured is diesel fuel, burner oils, residual fuel oils, carbon black oil, paving, roofing and emulsified asphalt, asphalt specialties, benzol, toluol, xylol, met-captans, cresylic acids and polybutenes.



OUR CONGRATULATIONS TO COSDEN ON ITS 25th ANNIVERSARY

We are happy to join Cosden's host of friends in adding our best wishes on this important occasion. May we boast, also, of our pleasant relationship with them over the years.

SOUTHERN Geophysical Co.

Box 2142

Fort Worth, Texas

We Offer Congratulations COSDEN PETROLEUM CORPORATION!

Our association with you during the years past has indeed been a pleasure . . . we enjoy working with an organization as progressive and cooperative as Cosden. We take this opportunity to say "Best Wishes and Congratulations on your Silver Anniversary!"

We're Happy To Be Able To Profess The Use Of Our Products By **COSDEN**



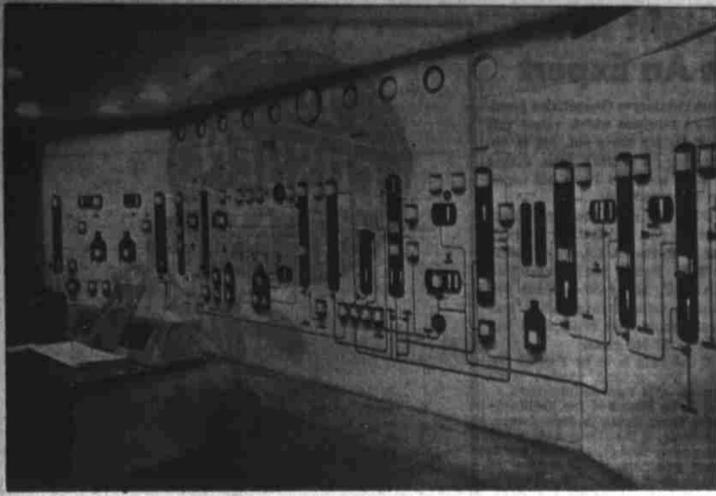
CLYDE McMAHON

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Nerve Center

Typical of the control panels from which the various refining and processing units at Cosden refinery are operated is the control room of the BTX plant. Electronic and pneumatic instruments keep a finger on the pulse of refinery operations and adjust the flow of materials, fuel and regulate temperatures. There are nine such control rooms at the refinery.

Control Units Tell The Story Of Operations

Nine separate electronic and pneumatic control systems keep the various segments of the Cosden refinery functioning properly. There's a distinct control system for each of two crude units, one catalytic cracker, one thermal cracker, the polymerization plant, BTX plant, alkylation unit, chemical plant and the treating plant at the refinery. Each has its own control panel covered with instruments which disclose in an instant to the skilled operators and stillmen just what is taking place in the various pieces of equipment. The glass-fronted control building facing Highway 80 on the south edge of the refinery grounds has to do only with the catalytic cracking unit.

Eight similar, though less-elaborate, control centers exist at various points over the refinery to "supervise" the work of the various other groups of equipment. Virtually all of the controls and instruments at the refinery operate through a combination of electronic and pneumatic forces.

The sensitive electronic fingers of the instruments constantly test the pulse of the complicated processes. What they "feel" regulates the amount of compressed air on valves which adjust the flow of raw materials into the processing units, regulate the heat that is applied in the refining processes, and shut off both raw materials and processing energy in case of any type of emergency.

The point where the electronic sensings are transformed into pneumatic energy for actuation of the refinery equipment is in the control rooms. As the adjustments are being made, dials and needles tell the operator precisely what is taking place.

It would take a small army of workmen scurrying over the grounds constantly to perform the myriad of tasks which modern automatic controls perform instantly.

retired. They are Louis Chapin, Al Souders and J. A. Hoffman.

The pension has been funded only since Sept. 1, 1951. Funding through a pension trust means that the corporation may accumulate advance funds in a trust to be used for paying current and future pension benefits to retired employees.

Raymond Tollett, corporation president, announced at the time the pension was funded that the money accumulated in the trust can be used only for the benefit of employees and cannot be used for anything else. He said the intention is for Cosden to make contributions to the trust in every future year.

He pointed out, however, that emergency situations may arise in the future to make it impossible for the corporation to continue the annual contributions.

COMPANY PAYS ENTIRE COST

Pension Program Set Up To Aid Retired Employees

Cosden Petroleum Corporation has a pension plan which provides for the retirement of female employees at the age of 60 and male employees at the age of 65.

The amount paid upon retirement—provided the employe works 25 or more years—is one third of the average monthly earnings over the last five years of employment. Cosden pays for the entire cost of the pension plan, and employes do not contribute any money. At the end of last fiscal year, the balance in the pension fund was \$815,053.

Actually the pension plan has

been in operation only since July, 1950. It is funded through a pension trust administered by the First National Bank in Dallas as trustee.

It is not necessary that an employe work 25 years before being retired. He can take advantage of the pension plan if he has worked at least 20 years. A proportionate pension is payable.

For instance, if a male employe reaches 65 years of age and has worked only 20 years, he can receive 23 1-3 per cent of his month-

ly salary over the past five years. For 21 years he receives 25 1-3, for 22 he gets 27 1-3, for 23 he is entitled to 29 1-3, and for 24 years the pay is 31 1-3 per cent.

If a person has not had the 20 to 25 years service when he reaches the age of retirement, he may receive the consent of the corporation to continue work. However he cannot be credited with more than five years of additional service for pension benefits.

If an employe—man or woman—is married at retirement age, he may elect to receive a reduced pension for his lifetime and have payments continued to his mate after his death. Choice has to be made at the time of retirement.

A full pension of 33 1-3 per cent of the average earnings over the past five years of employment is payable in the event of retirement from disability. This is true, however, only for employes who have been credited with from 25 to 24 years of continuous service. And the pension is paid only in event of total and permanent disability.

Though Cosden's pension plan has been effective only since 1950, employes are allowed seniority back to 1929. Three people have already

Petro-Chemical Processes Open Limitless Horizons

The limits of development in the petro-chemical field are primarily those of imagination.

However, those applicable to Cosden's operations here are governed by a number of other factors, including raw materials, location and freight differentials. Hence, in the view of Bill Jackson, head of the research and development division, the problem is one of selectivity.

There are so many possibilities that it would be difficult to get to even a good part of them. So the logical thing is to look to fields of exploitation which are not contained because of freight rates and positions, but which are supported by raw materials.

Some good possibilities exist in agriculture. Jackson and his colleagues have been looking long and well into fertilizers, but one of the difficulties here is size of plant normally required for profitable fertilizer operations. Cosden had some waste hydrogen but not enough to warrant an ammonia process. Urea offers greater attraction because it may also be used in plastics.

Plastics constitute another interesting field. Some of Cosden's output goes into channels which lead to plastic production now. The research division is investigating materials which will go directly into

plastics. The field of solvents could be logically expanded to include specialty solvents. These are but some of the possibilities.

Of course, there are always possibilities of diversifying the refinery so that the yields will provide opportunity for selected raw materials to fit into what ever track may be selected.

Shop Uses 19 Welders

Eight new combination transformer-converters are now being used in Cosden's refinery welding shop, which is located in the northwest corner of the huge shops building.

Work in the welding shop is mostly on pipe, and the noise created by the machines is deadened by a fibreglass sound proofing on the ceiling. Metal shields on rollers cut the glare caused by the torches.

A total of 19 welders are on duty in the shop and on the refinery grounds. Portable units are used to service units which cannot be brought to the shops. The shop has four small cranes which can carry from 1½ to 2 tons.

Natural Gasoline Used For Blending

One thing you'll find plenty of around the Cosden refinery—but which isn't produced there—is natural gasoline, sometimes referred to as casing head gasoline.

This is gasoline made by the condensation of natural, or casing head, gas collected from the mouths of oil producing wells.

Cosden uses natural gasoline for blending with the other gasolines, which it produces, in motor fuels of various grades. The refinery uses about 2,500,000 gallons of natural gasoline per month.

All of the refinery's stock is purchased from natural gasoline plants situated in all fields throughout West Texas.

Congratulations

to

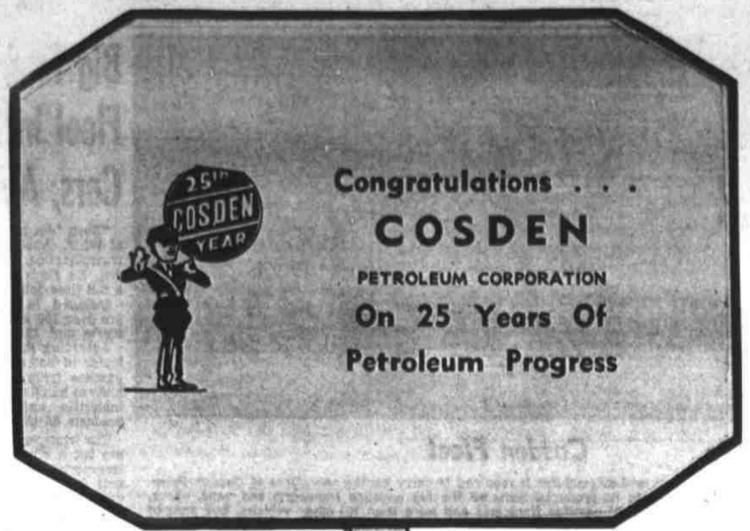
Cosden Petroleum Corp.

on the occasion of your

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Pan American Highway Advertising

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CONGRATULATES

COSDEN PETROLEUM CORPORATION

On Their 25th Anniversary



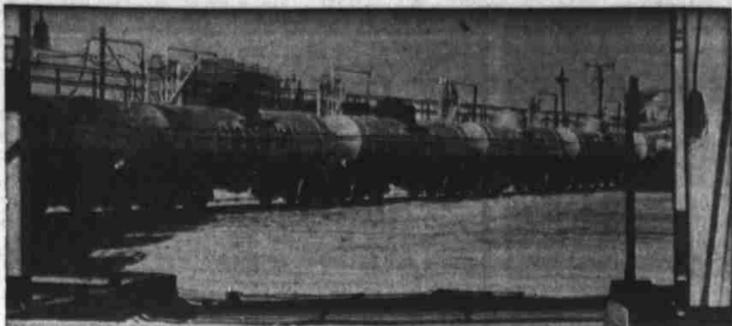
We Are Proud To Have Furnished Equipment To Cosden All These Years. Manufactured By . . .

Worthington Corporation
The Babcock & Wilcox Co.

AND

The Griscom-Russell Co.





These Cars Made History

These and other cars in a fleet that originally numbered 800 and now stands at 287 have made traffic history. In 25 years they have traveled the equivalent of nearly 2,000 times around the world. They have transported a quarter of a million carloads of products. They set national records in 1942 and for 1945-46-47 in miles traveled per car. So efficient was their operation that during the depression they showed a profit and the late Josh Cosden frequently used them as his borrowing piece.

Traffic Dept. Important Cog In Operations

One of the first departments created by Joshua Cosden when he created a corporation under his name in his great comeback bid was that of traffic.

In the quarter of a century following, this division has dispatched a quarter of a million carloads of petroleum and its products. Cosden cars have traveled the equivalent of 22,800 times around the world during that interval.

Heading this department is Douglas Orme, vice president. Orme went to work for Cosden in this department when it was created, and he's been in traffic ever since. In recognition of his knowledge of the field, Orme has been named to several national committees and has headed the Southwest Advisory Shipping Board.

Prior to and during the construction of the refinery here during the early part of 1929, the traffic department was established and assigned the responsibility of moving crude oil in tank cars from Big Spring to eastern markets. Josh Cosden purchased this crude and moved it at the rate of 50 carloads per day.

The traffic department also wrote specifications for 800 railway tank cars, supervised construction and took delivery of the fleet. Competitive rates on a complete line of petroleum products were negotiated.

Cosden had established 200 bulk stations in the Midwest, operating under Cosden Oil Company of Illinois. The company also marketed in eastern markets. As the refinery hit full stride, it was found that 800 cars were insufficient. So an additional 1,200 were leased temporarily.

The arrangement worked well until gasoline pipelines began operation in 1930 and 1931. The declining market structure, abetted by the depression and an over-supply of petroleum products, and cheaper modes of transportation available to competitors diminished profits considerably.

However, the fleet was new and repair costs low. Long hauls produced good revenue per car and the fleet operated profitably even

in the lean years. As a matter of fact, Cosden used the fleet as a "borrowing piece" several times. Cosden joined with other processors in seeking a reduction in freight rates to permit it to compete with pipelines, waterways and refiners nearer major market outlets. After a fight before the ICC for several years Cosden was granted 20 per cent reduction in rates into 15 states. Meantime, demand for cars had dropped and 150 of the fleet were sold in 1941. In September of that year the United States transferred 50 of its seagoing tankers and Cosden was represented in a special meeting Sept. 5, 1941 to bridge the gap to the eastern seaboard. Rates were cut 25 per cent.

Because Cosden had gasoline in storage and tank cars ready, it shipped the first solid trainload of gasoline from the Southwest to the eastern seaboard. Similarly, Cosden became a key figure in shipments to the West Coast after pressure had been relieved to the East. At one time Big Spring handled so much oil traffic that the terminal was virtually blocked. Later, on Nov. 19, 1943, Cosden made up the first trainload of crude oil from West Texas to the East. These were loaded at Midland and were first of thousands to follow.

After World War II, Cosden contemplated a pipeline to its terminals in Texas, but the Texas & Pacific negotiated for a comparable rate and thus the famous "Pipeline on Wheels" rate was born. It requires fewer cars to haul a volume of liquid a shorter distance, so Cosden had a surplus of 8,000 gallon tank cars. In 1951, Cosden sold 400 of these for an amount in excess of one million dollars. Proceeds were used in capital improvements at the refinery.

With the advent of Diesel locomotives, market for residual fuel oil used by the steam engines was lost. Part of the residue was converted to asphalt so Cosden purchased 98 second hand 10,000 tank cars in 1952. Today there are 287 cars in the fleet, of this number 189 being the original cars (550 were sold and 61 destroyed in rail-

Cosden's Products Reach Out To Help Farmer, Too

You probably wouldn't expect Cosden Petroleum Corporation to have a "farm program"—but it has.

Cosden has several products for agricultural use on the market, at least one other in the laboratory, and possibilities for still others.

Such items as livestock feed supplements, biotics, insecticides, weed killers, and an asphaltic lining for irrigation ditches and reservoirs are products—directly or indirectly—of the Cosden refinery.

Cosden potentially is a fertilizer manufacturer, and currently is engaged in research on a product which would be a combination fertilizer and insecticide.

At one time, Cosden supplied the nation with 80 per cent of its methyl mercaptans. These by-products of gasoline production are used in the manufacture of methanone, a feed supplement and biotic which is becoming widely used in the livestock industry.

Xylene—one of the products of the Cosden BTX plant—is used as a solvent for DDT and benzene hexachloride, a pair of widely-used insecticides. Actually, the insecticides are dispersed in a solution of kerosene (another Cosden product), but they first must be dissolved in xylene or some other substance before they are soluble in the dispersing agent. BHC and lindane are

currently being manufactured from Cosden benzene.

Cosden's weed killer, a pre-emergence type, is a variety of oil produced at the refinery. Used

Cosden Corporation Chatter Column Is Carried In Herald

Although Cosden Petroleum Corporation at present has no employee publications, it does have a weekly newspaper column.

This column, which appears in the Big Spring Daily Herald every Sunday, is entitled "Cosden Chatter." It deals with corporation happenings and the activities of Cosden personnel and their families.

"Cosden Chatter" has been a regular feature in The Herald for more than 12 years. Information which is printed in the column is gathered from all departments at the refinery and general offices.

Jack Y. Smith, personnel director for Cosden, acts as clearing agent for the column. The compiled report is submitted to him, and he in turn releases it to the newspaper.

Plans are now in the making for an employee publication at Cosden, but definite proposals for such a house organ have not yet crystallized.

throughout South Texas in the irrigated vegetable districts, it is sprayed over the land before crops are up to kill weeds as they sprout from the soil, as well as those already growing.

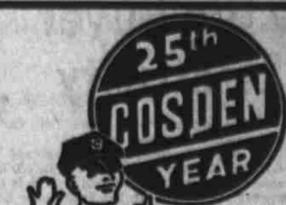
Catalytically-oxidized asphalt—one of several varieties produced at Cosden—is used as a liner for irrigation ditches and reservoirs, preventing the loss of valuable water to soil through which the canals and reservoirs are constructed.

Chemists at Cosden are now working on what they hope will be a combination fertilizer-insecticide. This is actually two products, hydrogen sulfide and ammonia.

When applied together to the soil, the two substances would react chemically, liberating sulfur which would serve as an insecticide and forming additional ammonia, the fertilizing agent.

The increasing use of pur ammonia as a fertilizer opens up the other possibility for fertilizer production at Cosden. A by-product of the catalytic reforming unit, or "platformer," at the refinery is hydrogen. This could be combined chemically with nitrogen to produce ammonia, another process which is receiving study here.

The more basic products of the Cosden refinery—fuels and lubricants—are widely used in agriculture, of course. Fuels include gasoline, butane, diesel fuel, kerosene.



BEST WISHES to COSDEN

On This Occasion Of Your 25th Anniversary

We're happy to have your business association and to wish you well, prosperity and more progress in the future . . .

D & H ELECTRIC CO.

215 Runnels Mark Harwell Dial 4-6661

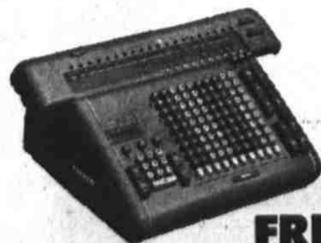
Congratulations To COSDEN PETROLEUM CORPORATION On Their TWENTY-FIFTH ANNIVERSARY



Pictured at the left is a view of the beautiful and efficient office of Cosden's President, Mr. R. L. Tollett. STOW & DAVIS furniture was chosen for its distinctive design and quality craftsmanship.



Shown at the right is the south wall of Mr. Tollett's office as he sees it when seated at his desk. The importance of a carefully designed and furnished office should not be underestimated.



FRIDEN CALCULATING MACHINE AGENCY



FRIDEN AUTOMATIC CALCULATORS and AUDOGRAPH DICTATING MACHINES are used extensively by COSDEN to reduce business overhead costs.

The **BAKER COMPANY**

MIDLAND-LUBBOCK

BENEFITS FOR EMPLOYEES

Insurance Program Is 17 Years Old

Cosden Petroleum Corporation has a group insurance plan with Metropolitan Life Insurance Company which has been in effect for more than 17 years. It provides all the customary benefits for employees.

Lives of the 583 eligible employees are insured for \$3,878,400, which is an average of \$6,700 per person.

The whole cost of the insurance, with respect to employees, is borne by the corporation. Employees carrying medical and hospital insurance on their dependents do make payments for the additional benefits, but at a reduced rate.

The amount of insurance carried on the individual employees depends on the salary earned. Employees become eligible for insurance after completing three months

of continuous service with Cosden. Benefits include life insurance, accidental death and dismemberment insurance, weekly sickness and accident coverage, hospital and surgical insurance. Dependents are entitled to hospital and surgical coverage which includes maternity benefits.

Though the employee pays nothing for his policy, he must pay \$3.94 per month for one dependent and \$6.92 for wife and children.

Policy coverages range from \$2,200 to \$20,000 for life insurance, and from \$1,000 to \$5,000 for accidental death and dismemberment. Weekly sickness and accident insurance ranges from \$10.50 to \$42. The hospital expense insurance has a 77 rate for maximum daily benefit and \$140 for maximum special services. Surgical operation insurance is for \$200 maximum.

No medical examination is required for the employee insurance, though dependents insured after the policy is first initiated may have to take examinations.

Increases in insurance are automatic on the date a change in the employee earnings puts him in a higher class. For instance employees receiving between \$300 and \$400 are insured on their life for \$6,000. If they are promoted to a bracket making between \$400 and \$500 per month the insurance goes up to \$8,000.

In addition to the insurance, employees paid on an hourly basis and receiving less than \$25 monthly are paid on special supplementary payrolls when absent from work because of illness. And employees injured while working are temporarily dropped from the regular payroll during absences, but they are paid the difference between compensation insurance and regular salaries.

Refinery Here Adds Traffic Volume To The T&P Railway

A major generator of traffic for the Texas & Pacific and other railroads is Cosden Petroleum Corporation.

Under the present schedule, the railroad moved around 2,500,000 barrels of liquid per year, about one-third of it under the special trainload rate for products.

Outbound shipments from Cosden approximate 10,000 carloads of products per year. In addition, Cosden received inbound shipments of around 250 carloads of chemicals, blending stocks, operating and construction materials annually.

Cosden's railroad traffic produces revenues for all railroads participating in the movement of \$2,943,122 per year.

Refinery Big Buyer Of Gas, Electricity

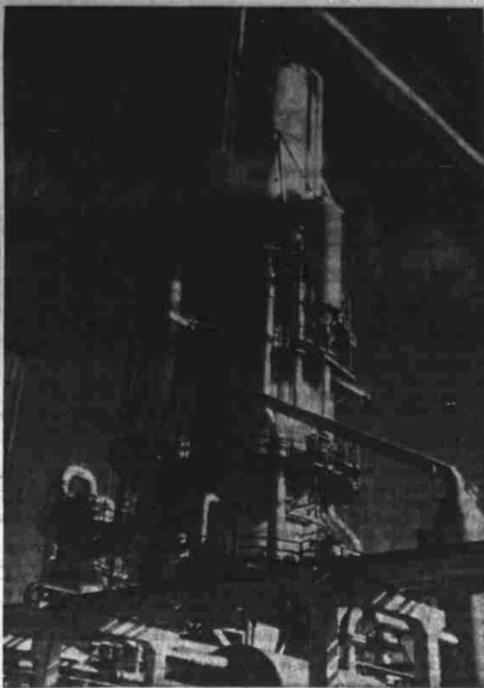
With the vast quantities of fuel and power required for the operation of a refinery, you might expect Cosden Petroleum Corporation to be its own best customer. That is not the case, however. Cosden undoubtedly is the biggest purchaser of fuel and power in this section of the state. Principal fuel at the refinery is natural gas. Cosden requires about 8,000,000 cubic feet of gas per day. All of this is purchased from Empire Southern Gas Company. The natural gas supply is supplemented with waste gases, including hydrogen, from the various parts of the refinery. Electrical power consumed by Cosden runs to about 2,500,000 kilowatt hours per month. This is purchased from Texas Electric Service Company of Big Spring. Electricity is used for lighting, to operate pump motors and for the multitude of instruments and control systems at the refinery. Cosden's gas and electricity bills run to approximately \$50,000 per month. Another product which Cosden must purchase is water—for conversion into steam and for cooling purposes. The refinery requires more than 1,000,000 gallons of water daily. This industrial water is secured as effluent from the sewage disposal plant of the City of Big Spring.

Land-Lease Dept. Is Managed By Mrs. Alma Gollnick

Manager of the land-lease department of the Cosden Petroleum Corporation is Alma Gollnick, senior-employee of the company. Mrs. Gollnick was associated with Josh Cosden for two years prior to the formation of Cosden Petroleum Corporation in 1928. Marvin M. Miller, vice president in charge of exploration, says she is "the best in the business" as a land and lease representative. Also an important cog in leasing activities is Joe Moss, who is in charge of royalty division work and who serves as attorney. The land-lease department must clear all oil, gas and mineral leases entered into by Cosden and is responsible for the division of royalties and lease payments on properties the company holds.

Tariffs Plentiful In Cosden's Files

Cosden's traffic department maintains more than 800 separate railroad freight tariffs in its files. These tariffs name the classification and the rates applicable in which Cosden might be interested. These are kept in strict order in 144 compartments for commodity and class tariffs. Special materials, individual issues, and general reference are housed in 30 other drawers. Still another item is a colored map with general bureau territories shown by color and their subdivisions by a series of lines. Files must be revised constantly to stay abreast of changes in regulations, rates or laws.



Expensive Operation

Pictured above is Cosden's catalytic cracker, which uses an expensive catalyst in the refining operation. This catalyst, synthetic silica alumina, costs about \$350 per ton, and about a ton is lost per day. Some 12½ to 14 tons of the catalyst run through the cracker per minute. The catalyst accelerates a chemical reaction to produce high octane gasoline.

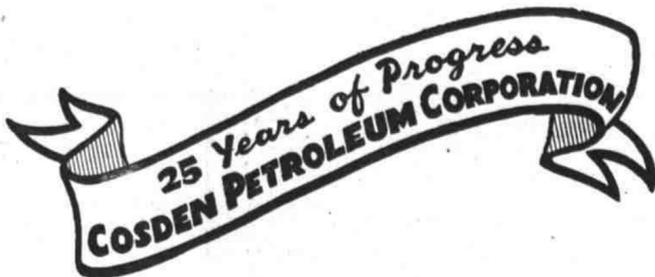
Cosden Corp. Safety Mark Above Average

The safety record at Cosden Refinery is considerably above average for industry as a whole, according to Jack Y. Smith, safety director and personnel manager. Only four people have been killed while working at the refinery since 1929, he said. And though minor injuries are common, serious accidents are few and far between. The safety record is no accident, as every precaution is taken to assure that employees are not seriously injured. First aid stations are located in the refinery laboratory and the personnel office, and small kits for immediate first aid application are to be found at every refining unit. Bill Phillips, refinery safety officer, constantly makes inspections of installations to see what changes can be made to further safety. It is his job to report hazards to Smith before accidents result so that these hazards can be corrected. Cosden furnishes safety helmets for all employees, and safety steel coated shoes are available at cost through the safety office. Goggles are available for those who need them, and they are fitted if necessary. Night safety is assured by well-lighted working areas. Any spot where a worker is likely to be during the hours of darkness has one or several light bulbs. Steel rails cover all high platforms and ladders to keep employees from falling, and smoking is prohibited in certain areas. Of the four people killed at Cosden while working, three were burned to death in pump house fires. Another was gassed. Still another man was killed when run over by a train, but he was not working. There has never been an automobile accident on the refinery grounds so far as Smith can remember. There have been a few collisions at the refinery entrance near the highway, but this danger has been corrected with the construction of a divided highway in front of the refinery. The highway was reconstructed after refinery employees petitioned the State Highway Department through the safety office. All injured employees who require

Our CONGRATULATIONS To Cosden Petroleum Corp. On Its 25th Anniversary

The Industrial Insulators, Inc. HOUSTON TEXAS BERGER

Congratulations On



Franklin Supply Co.

ODESSA

CHICAGO

It's A Real Pleasure To Say

CONGRATULATIONS

to an old and valued friend

COSDEN PETROLEUM CORP.

on its Silver Anniversary

AIRETOOL MFG. CO.

2603 E. Third St.

Tulsa 4, Okla.

It's Those Catalysts That Do All The Refining Work

Chemical reaction converts various oils to usable products at Cosden Petroleum Corporation's refinery. Under certain processes this reaction is brought about by four catalyst agents.

The catalysts are synthetic silica alumina gel, phosphoric acid, platinum, and hydrofluoric acid.

The phosphoric acid, catalyst for the polymerization plant, will not be used after the alkylation unit is in operation, according to Allen Orr, process engineer.

A catalyst is an agent or substance that either accelerates or retards a chemical reaction without taking part in that reaction. Despite the refining process, Orr explains that a catalyst comes out of a unit just like it went in. The engineer points out that the use of catalysts has changed the refining industry by incorporating chemical changes in addition to physical changes performed by distillation.

The synthetic silica alumina gel is the catalyst for the catalytic cracker. Though not a fluid, it behaves as a fluid because it is composed of such fine particles. Orr describes it as a fluid type catalyst. Cosden circulates from 12½ to 14 tons of the catalyst through the cracker per minute. Orr estimates that about a ton of the gel is lost per day, and a ton costs about \$350.

All of the catalysts are fairly expensive, he points out. The synthetic silica alumina gel does more than promote a cracking reaction. Orr says it serves as a carrier for carbon deposited from the cracking. By supplying oxygen to burn off the carbon, it is possible to generate the heat to operate the unit. This is why the catalytic cracker is called a heat balanced unit.

The phosphoric acid is a catalyst at the poly plant, which operates exactly opposite from the catalytic cracker. At the poly plant the idea is to combine the small molecules of gas rather than to break them down. The finished product is a high octane gasoline.

Cost of the phosphoric acid is from 28 to 30 cents a pound. It is not circulated through the unit, but is kept in stationary beds instead. Some 30,000 pounds are used until spent, and then thrown away. Platinum is the catalyst used in the platformer (catalytic reformer). It too is kept in stationary beds within the unit rather than circulated, and it promotes several reactions, depending on the condition of pressure and temperature.

Reactions which can take place within the reformer are dehydrogenation, hydrogenation, cyclization, isomerization, some cracking, and some polymerization. A number of fluids can be produced, including high octane gasoline, BTX, and aromatic chemicals. The platinum catalyst costs about \$9 per pound, but Cosden is

570 Million Miles: That's Traveling Mark Of Tank Cars

Although the Cosden tank car fleet has been diminished during 25 years, it has achieved a phenomenal record.

The original fleet of 800 (there once were 1,200 cars under lease besides these) has been reduced by sales and attrition to 287.

From the beginning Cosden cars have travelled 570,000,000 miles in all states of the Union and in a large part of Canada and Mexico.

They have moved 224,305 carloads of gasoline, kerosene, Diesel fuel, burning oils, residual fuel oils, carbon black oils, paving asphalt, roofing asphalt, emulsified asphalt, benzene, toluene, xylene, mercaptans, cresylic acids, and polybutanes from the refinery here.

Drilling Operations Are Contracted For

All drilling operations of Cosden are performed by contract. And a lot of hole is contracted for by the corporation.

In fiscal 1954, which ended April 30, independent drilling contractors put down an aggregate of 325,000 feet of hole for Cosden. The total number of wells contracted was 61.

For the previous year, total drilling footage contracted was 222,000 and the number of wells was 43.

Contracts for all drilling are let on the basis of competitive bids, with equipment and abilities of the various drilling contractors being taken into consideration.

Cosden formerly operated its own cable rigs, but has relied on contract drilling in recent years.

Congratulations

and Best Wishes for the COSDEN PETROLEUM CORP.



JESS BAILEY CO. Steel Supply

101 OWENS

DIAL 4-5225

Congratulations...

The Davison Chemical Company extends best wishes to Cosden Petroleum Corporation on its 25th Anniversary. During these 25 years Cosden has produced petroleum products so important to the nation's economy.

Progress Through Chemistry

DAVISON CHEMICAL COMPANY

Division of W. R. Grace & Co.

Baltimore 3, Maryland

PRODUCERS OF CATALYTIC INORGANIC ACIDS, TRIPLE SUPERPHOSPHATE, SUPER PHOSPHATE, PHOSPHATE ROCK, SODA ASH AND SODIUM CHLORIDE. SOLE PRODUCERS OF DAVCO® GRANULATED FERTILIZERS



Congratulations
COSDEN
Petroleum Corporation

On Its

25th
ANNIVERSARY

Your progress and our progress go hand
in hand . . . We offer our fond congratula-
tions on the most outstanding progress
made in the past twenty-five years . . . We
thank you for helping us prove the quality
of . . .



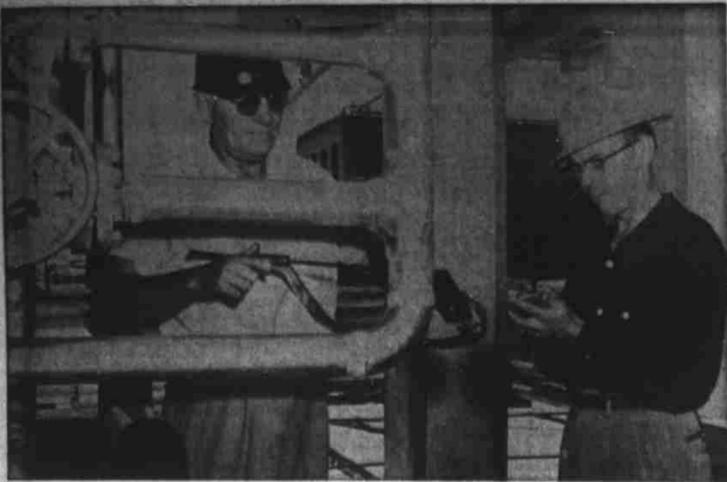
Ford's Outstanding
CARS and TRUCKS

Big Spring Motor Co.

"YOUR FRIENDLY FORD DEALER"

500 West 4th

Dial 4-7424



Safeguard Operations And Safety

Inspectors at Cosden's refinery play a key role in keeping the plant going without disruptions and in safeguarding personnel. J. T. Johnson, left and E. H. Bouilloun Jr., engineers, give a new section of pipe construction a close check. They pass on everything that goes in and constantly keep an eye on existing facilities.

Refinery Units Shut Down To Prevent A Breakdown

Refinery maintenance, which requires about 150 men, is one of the biggest jobs at Cosden Petroleum Corporation. And it is also one of the most well planned jobs. In fact, it is so well planned that a major break down of a plant unit is practically unheard of.

This is largely due to the efforts of E. B. McCormick, chief engineer. He sees to it that a constant policy of "preventive maintenance" is effected.

Once each week—Friday at 2 p.m.—McCormick holds a planning meeting with the heads of all departments. A full maintenance schedule is worked out for the entire week following. Then the various foremen hold a conference each day to assure that all emergencies are met.

"Our policy is to come down, not break down," McCormick said. All the refinery operating units are so scheduled that they are shut down after a specific period of operation. During the period of inactivity, the unit is thoroughly inspected. If anything is wrong, it is immediately corrected.

All physical parts, including the flanges, are checked. Even advanced instruments are used to determine the thickness of metal. Before a unit goes back on stream, inspectors know that it will work safely and efficiently for a specific period.

Though the maintenance program outlined by the seven plant engineers, each piece of equipment is inspected by members of the particular craft responsible for it. Pipe fitters, welders, painters, boiler makers, riggers, electricians, blacksmiths, carpenters, ma-

sons, and others are available on instant call. Maintenance personnel are on duty 24 hours each day. Most have daylight hours when refinery operation is heaviest, but a skeleton crew is on hand at night. The engineers are also on 24-hour call.

Purpose of the preventive maintenance policy is two-fold. McCormick says that it assures the safety of the employees and insures efficient operation of the machinery.

Though the constant inspections are more or less routine, McCormick constantly stresses their paramount importance. "We try to stay ahead of the game and thwart any possibility of a breakdown," he said.

Maintenance problems are varied. McCormick explained that crews will be working on steam boilers one minute and cooling systems the next. Primary consideration, of course, goes to the processing units and their components.

In addition to preventive maintenance, McCormick also stresses progressive maintenance. This is due to the ever changing materials and ideas being introduced to the refining industry. "We have to keep up with the technological developments or close shop," he said.

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Security Calls For Close Check At Plant Gates

It is almost as difficult to get through the gates at Cosden's refinery as it is to gain entrance to nearby Webb Air Force Base.

Plant security, sparked recently by additional government contracts, requires that all visitors be checked in and out of the grounds. Those seeking entrance must specifically state the nature of their business and the department they wish to visit.

There is only one entrance to the refinery, making security checks fairly simple. A high fence completely surrounds the grounds, and guards are on duty 24 hours each day.

Each automobile driven to the plant gate is stopped by the guards. Drivers and passengers are listed on the guest register, and the license number of the vehicle is recorded. A visitor's pass is placed on the automobile windshield if entrance is approved.

Actually a person with legitimate business has no trouble gaining entry. But he still must go through the routine of registration. Even the employees—there are around 800—must undergo the scrutiny of the guards before they can get into the plant. They don't have to register, but they do have to display a large circular button which pins onto their clothing.

Similarly, airmen at Webb have a sticker on their automobile windshield which is checked at the base entrances. Base visitors simply sign in, stating who they wish to see, and receive a visitor tag for their windshield.

Both Cosden and Webb are particular about who enters and leaves during night hours. Jack Y. Smith, security director for Cosden, states that unless someone has a definite business on refinery grounds at night, he does not gain entry. Smith also checks the gate register following each day's traffic to



Security Control

Because of its several prime contracts with the federal government and for other security reasons, Cosden closely controls entrance and egress of all refinery personnel and visitors. Tom Slaughter, veteran of the security force, checks on a visitor and requests him to sign in, listing the name of the person whom he will see, make of car and license number, time of entry.

all employees at Cosden are screened before being hired. The Federal Bureau of Investigation does not screen the Cosden employees, but the records of the plant's investigations are reviewed.

see if all entries listed appear on the up and up. Cosden's refinery, because of the newly completed alkylation unit and government contracts for BTX products, has periodic checks by the Army. All recommendations concerning security are compiled with, Smith explains.

The registration of visitors began early this year when the shops building was constructed and work began on the alkylation unit. It was at this time that the new entrance was built and a new fence put up around the refinery. As a further security measure,

Congratulations to COSDEN On 25 Years Of PROGRESS

Note The Shine and Gleam Of The Plant That Is Real Clean Protective Coatings By



MFG CO., INC.
Big Spring, Texas
Factory And Office
East Highway 80
Dial 4-8922

TBA Line In Addition To Cosden's Petroleum Items

A small part of Cosden Petroleum Corporation is not associated directly with oil and oil products.

This is the TBA department of the company which operates from its own building at 800 E. 3rd in Big Spring.

TBA, to those at Cosden, stands for Tires, Batteries and Accessories.

The store, for that is actually what it is, supplies the firm's jobbers with the products they need. Dealers may buy, from the store, Mansfield tires and tubes, X-Sel batteries, Champ filters and A. C. spark plugs.

These products are stored at the building on East Third and shipped directly to or picked up by the jobbers when the need arises.

Operating expenses are kept to a minimum so that the savings may be passed along to the distributors. Products are available to all Cosden outlets throughout the marketing territory.

By the Cosden salesman, jobbers are kept abreast of what the store has to offer and they are assisted in making selections that will best fit their needs.

TBA employees are Hugh K. Harris of Arlington, John Rude-seal, William H. Frand, manager of the local store, and Norman D. English.

Congratulations to the Cosden Personnel

Through their efforts in cooperation with their many suppliers over the past years, they have succeeded in developing a refinery of which we can all be proud.

ELLIOTT COMPANY

Manufacturers of centrifugal compressors, steam turbines, turbine-generators, electric motors, steam-jet ejectors, condensers, tube cleaners, etc.

Dallas Office
5738 Central Expressway

25 Years of Progress
COSDEN PETROLEUM CORPORATION

BIG SPRING'S PIONEER DRUG STORES

SALUTE COSDEN PETROLEUM CORPORATION...

The Petroleum Pioneer of WEST TEXAS

CUNNINGHAM AND PHILIPS
FRIENDLY DRUG STORES
Your Family Druggist Since 1919

WE THANK YOU FOR WHAT YOU HAVE DONE FOR OUR TWO DRUG STORES AND WANT YOU TO KNOW THAT WE DO APPRECIATE IT VERY MUCH.

JOE HEDLESTON
Petroleum Building

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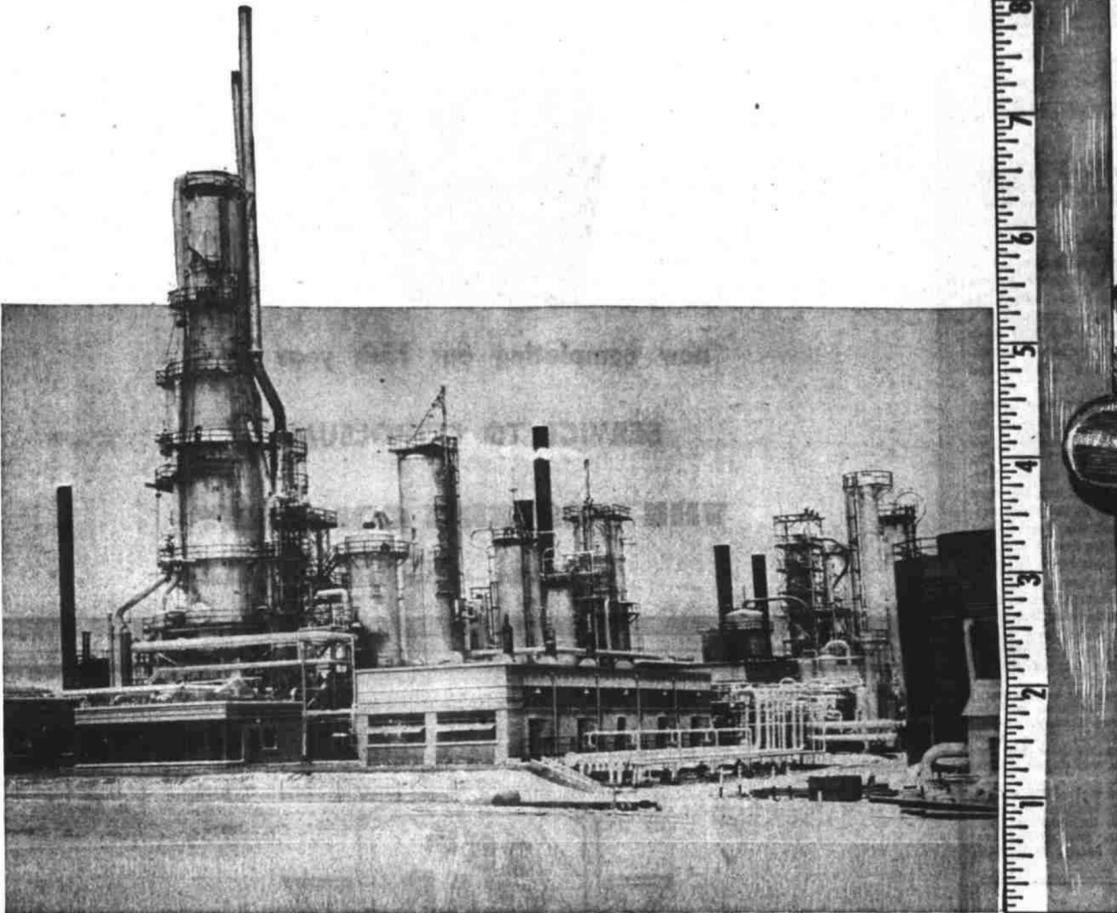
CONGRATULATIONS . . .

On
25 Years
Of
Petroleum Progress




MILWHITE MUD SALES CO.
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3006 West North Front St. Dial 4-6345
BIG SPRING
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How Do You Measure An Oil Company?



How do you measure the bigness of an oil company? By the physical facilities it owns, the total assets it has, the number of producing wells, its customers, variety of products manufactured?

Yes, all these enter into the overall evaluation of any oil company. And here in West Texas, you find that Cosden Petroleum Corporation stands high on each of those counts. It has been a real pioneer in our section's oil industry.

But, we believe, another measure of bigness is also the

community service that an oil company renders. And a firm that we Big Springers like to regard as our own, Cosden, has certainly been an asset to us in many phases of our civic and business life during the past 25 years. Its contributions to our economic status has been matched by its participation in our civic and social endeavors.

In fact, Cosden people are the type of business neighbors we like. It is indeed gratifying to add our sincere congratulations and best wishes to them as they celebrate their 25th anniversary.

OFFICERS

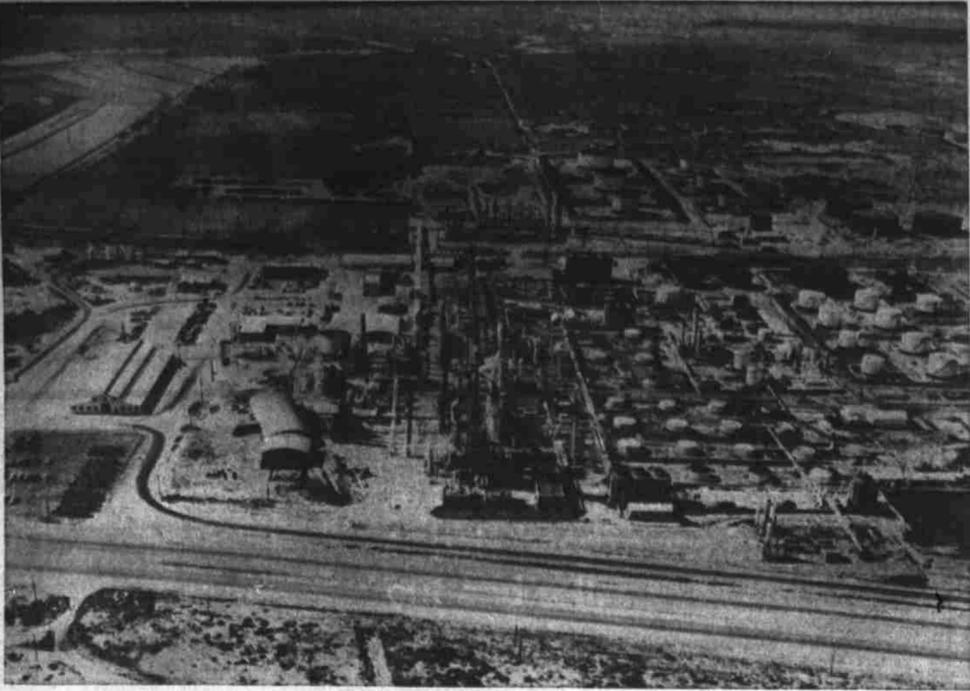
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President
IRA L. THURMAN
Vice-President
R. V. MIDDLETON
Vice-President
H. H. HURT
Vice-President
HORACE GARRETT
Vice-President
REBA BAKER
Vice-President
LARSON LLOYD
Vice President
CLYDE ANGEL
Cashier
STELLA MAE HAYWORTH
Asst. Cashier
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First National Bank

IN BIG SPRING



How Cosden's Plant Appears From The Air

The refinery, alkylation unit and BTX plant of Cosden Petroleum Corporation, along with the shops, warehouse, part of the vast tank farm and other facilities stretches in an orderly panorama from the air. In the foreground, adjacent to U.S. 80 Highway, is the catalytic cracker. Behind it are the thermal crackers and then the new alky-

lation unit. Beyond the tracks is the BTX plant. To the left of the refining units are the furnaces, water treaters, warehouses, laboratory, offices, shops and bulk station. This picture was made recently by Keith McMillin, Herald photographer.

Company Met A Failure In Attempt For An 'Air Well'

There is an abandoned well in the northeast corner of Cosden's refinery property. Cosden quit the hole when it failed to strike air, not oil.

Reason for the test, located in the northeast corner of section 48-32-1n, T&P, was to try and tap a tremendous volume of air com-

pressed by subterranean forces. Cosden had in mind utilizing it as a source of power. Modern processes would have made the air itself useful.

Cosden did not simply go looking for an air well. There was solid basis for the venture in the showing of Dick Graham No. 1

Great West. Wildcatting on the previous site of a Cosden competitor, Great West Refining Company, Graham spotted his well 330 feet out of the northwest corner of section 48-32-1n, T&P. On Feb. 17, 1937 at a depth of 1,460 feet the well suddenly roared out of control.

Fears of gas subsided and tests indicated that the volume was 280 million cubic feet per day. The roar could be heard for miles. Samples were sent for analysis to see if helium was present. The issue was almost pure nitrogen. By Feb. 24 volume had dropped to 100 million cubic feet per day and on March 10 it was down to 80 million cfd. Sand and then salt water began spewing. The derrick had been whipped to shreds and the mudded-in casing was threatening to blow out. Gradually the

In Canada, moose often attack locomotives and in some cases, trains have been derailed by them, although such attacks usually mean death for the moose.

10-inch casing opening salted to a diameter of four inches. Nearby communication lines sagged as though in a sleet storm. For a month and a half the high moan of the well could be heard in town. Finally it eased off and was capped.

Cosden moved to a west location and tried unsuccessfully to tap the air pocket. In 1920 General Oil Company No. 1 Sand Hills, in the southwest quarter of section 35-32-1n, T&P, had drilled into the same airpocket. Force of the issue completely wrecked the derrick and occasioned drilling from a new site.

There have been other instances in the area of these gigantic air pockets. One occurred in Mitchell County just southeast of Westbrook in 1939. For days salt water sprayed high in the air along with millions of cubic feet of air. In 1948 J. C. Karcher No. 1 Caldwell, which later proved to be the south edge for the Vealmoor pool in northern Howard County, tapped the air at 1,840-51. Tools were blown back up the hole and for two weeks the well defied efforts to control it.

This was the sort of thing Cosden had been seeking—and was ready for—with its concreted casing and valves. That would have been just too handy, fate must have decided.

Branded Products Pushed In This Area Since '30's

The traffic cop that stands today as a synonym for Cosden Petroleum Corp. was virtually never seen in this part of the country until the middle 1930's.

A truck owned by the late W. E. Gibson Sr. and driven by Paris Yarbrough hauled the first gasoline from the Big Spring refinery to be sold in Texas under the Cosden brand.

Gibson later became sales manager for the firm and Yarbrough is now a veteran Cosden jobber operating in Colorado City.

Prior to the middle 30's, Cosden's marketing area was in the Middle West where bulk plants and retail outlets were operated. The gasoline, during that period, was shipped in tank cars from the Big Spring plant to the bulk plants in the Middle West.

When freight rates increased, the bulk plants and stations were closed and the marketing territory was moved closer to the refinery.

More effort, then, was put into selling the branded products. As improvements were made at the refinery, inquiries from other marketers were made. Over the years, Cosden has made much gasoline for other companies according to each firm's individual specifications.

Today Cosden manufactures gasoline for 12 other companies.

Rounding out the branded product picture, in 1939 Cosden began blending and canning its own lube oils and greases.

Improvements have been constant in these products and in light oils.

At the present time, the Cosden franchise includes gasoline, distillates, fuel oils, asphalt, chemicals, lube oils and TBA items

(tires, batteries and accessories). The franchise is supported by a credit department which handles farm accounts, retail and wholesale credit, TBA contracts and credit cards.

The unique color scheme Cosden uses makes the stations readily identifiable.

Approximately 30 members of the Cosden organization are employed by the marketing department. Overseeing the department is R. M. Johnson, coordinator of sales. C. W. Smith is sales manager.

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Oil Exploration Retains Important Spot In Firm

When Cosden Petroleum Corporation was formed early in 1928, it was strictly in the oil exploration and production business.

Today, 25 years after the company added refining to its other activities, exploration is just one phase of a vast and complex operation. But it remains an important phase.

Cosden's exploration department, headed by Vice President Marvin M. Miller, has discovered no fewer than 10 oil fields in the last quarter of a century. And at present, as a result of activities of the department, Cosden holds 12,000 acres of proven leases and has another 83,000 acres under lease.

The present Cosden Petroleum Corporation was formed in 1928 and one of the first things the founder, Joshua S. Cosden, did was purchase the leases and production

properties of Milham Corporation in Wilbarger County.

These properties included approximately 30 producing wells and a number of proven locations. Twenty new wells were drilled by Cosden within the next year.

Miller, who was associated with the Milham Corporation, joined Cosden when the latter purchased the properties.

In 1928, Cosden also extended his exploration operations to Howard County, paying the late Mrs. Dora Roberts \$1,000 an acre for a 320-acre lease in the Howard-Glasscock Field. By mid-1928, Cosden had invested \$2,000,000 in leases in Howard County.

Refining operations were started in 1929 to provide an outlet for the crude which Cosden's exploration and production forces were unloading from the prolific

Howard-Glasscock Field. Cosden also expanded in other directions in 1928-29, with the exploration department securing leases in other parts of Texas, Arkansas, South Dakota, Florida and Oklahoma.

At one time during this period, Cosden had 30 to 40 rigs running simultaneously, Miller recalls. The company was producing 12,000 to 14,000 barrels of oil per day, but was refining only 5,000 to 10,000. The depression put a crimp in exploration, however, and Cosden drilled no new wells from 1931 to 1939. And by 1940, the concern's total production had dropped to 800 barrels of oil per day.

Exploration was resumed on an expanding scale following World War Two. Since the war, Cosden has discovered several new fields and during the past year drilled 61 wells, 35 of them turning out to be producers and 23 proving to be "dry holes."

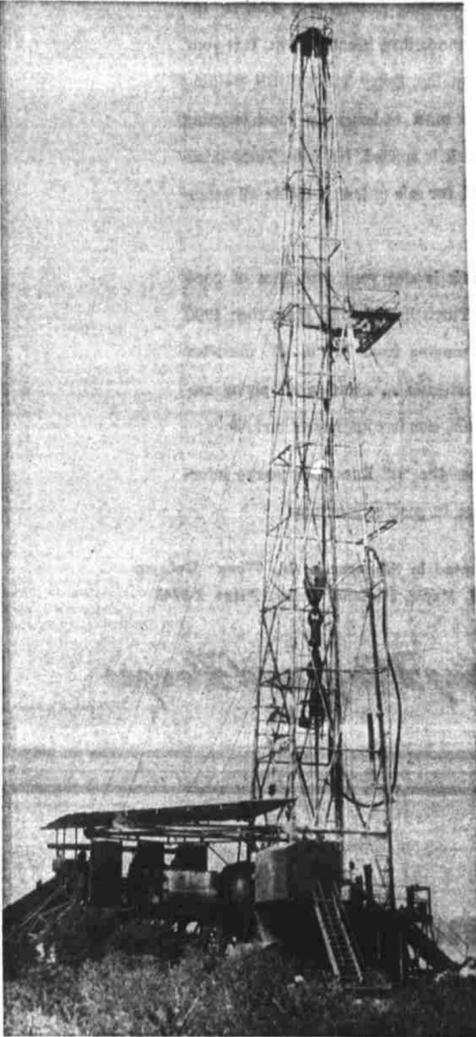
Here are the major field discoveries made by Cosden through its exploration department since 1929:

1. The Logan County, Okla. field, developed following the discovery well on the J. S. Gardner Lease. The first well was completed by Cosden in June, 1929, for a flow of 5,000 barrels per day. It produced from the Wilcox Sand at 6,000 feet. Cosden constructed a gasoline plant on this lease and the plant operated until 1939.
2. The Cosden Field, of Bee County. The discovery well was brought in three miles west of Petrus. Completed in 1930, the well is still producing from the Petrus sand at 3,800 feet.
3. The Sewell Field, of Young County. Cosden here hit multiple pay four miles east of Graham with production from the Caddo lime, at 3,800 feet; the Marble Falls lime, at 4,000; and the Mississippian at 4,400 feet. Cosden built a small refinery at Graham, selling the plant in 1947.
4. The Vincent Field, of Howard County. In 1941, Cosden finished a well in the Clear Fork at 4,000 feet.
5. In 1950, Cosden's exploration department "farmed out" a wildcat to George Livermore, action which resulted in discovery of the Retzecke Field of southeast Borden County.
6. The Parkey Ranch Field, of Baylor County, was a result of Cosden exploration in 1952. It produces from the Caddo.
7. Cosden discovered another Bee County pay in 1953, the West Tynan Field.
8. On Jan. 1, 1954, Cosden brought in a wildcat in Niobrara County, Wyo., signalling the start of production in the Snyder Creek Field which produces from the Newcastle Sand at 7,700 feet.
9. Cosden's latest discovery has been Liveoak County production from the Upper Hockley Sand.
10. Another recent discovery has been a shallow gas field in McMullen County. Development of this is pending the completion of pipe lines to handle production.

Hydrogen By-Product Of Refinery Output

Hydrogen, a lighter-than-air gas, is one of the by-products of refining operations at the Cosden plant. At present, all of the hydrogen produced here is being used at the refinery as a fuel to supplement natural gas in the firing of heaters. Other waste gases also are used in this manner.

Hydrogen holds possibilities as a constituent of fertilizing material which may someday be produced at the refinery or an associated facility. In combination with nitrogen, the gas forms ammonia which is now used for fertilizing purposes.



Making Hole

A big rig bores a hole in the earth in the quest for oil on a Cosden lease. Cosden, which formerly operated its own cable outfits, now contracts all its drilling. If all the wells drilled by Cosden last year were placed end to end, they would extend 325,000 feet into the earth.

Congratulations Cosden Petroleum Corporation For 25 Years OF PETROLEUM PROGRESS



THOUGHT GIVEN TO PEOPLE

Top Notch Personnel Program Features Cosden Operations

Cosden Petroleum Corporation—to assure contented employees—maintains a top notch personnel department for the handling of labor relations.

This department, which was recently cited in a university thesis as having developed an excellent personnel program, is the coordinating agency for employee benefits. It also handles all working agreements with the union.

Jack Y. Smith heads up the personnel department for Cosden, and it is his responsibility to handle all employee problems. He must also see to it that Cosden is supplied with adequate personnel.

"We realize that industry spends much more money on equipment than on employees," Smith said. "But here at Cosden we try to give as much thought to people as we do machinery."

The personnel manager pointed out that machinery can always be replaced. Replacing a trained individual is, on the other hand, not so easy.

Programs for employees centered out of the personnel office include group insurance, recreation, pensions, safety, medical service, health benefits, vacations, pay for the sick and injured, etc.

Perhaps the most important job of the personnel department is maintaining relations with Local 828 of the International Union of Operating Engineers. All the maintenance and operating personnel of the refinery belong to the union. It is through the personnel de-

partment that the union has negotiated its 11 different contracts with Cosden Petroleum Corporation. There have also been 22 wage conferences between union representatives and a representative of the personnel department.

The personnel program allows two week vacations to all employees who have worked a year or longer, with three weeks going to those who have worked 15 years or longer. The 25-year employees are given a month's vacation.

The group life insurance plan which is available free to employees of three months or longer, provides life, accident, sickness and hospitalization. Dependents can be insured by the employees at a reduced rate.

The personnel office also administers the pension plan, which allows retirement for men aged 65 and women 60 at one-third their average monthly salary over the past five years.

Recreation is encouraged among the employees, and the personnel office is clearing house for baseball uniforms and other sports equipment. Reservations can be made through Smith for use of Cosden lodges on three West Texas lakes.

Refinery safety is also centered through the personnel office. A number of programs have been instituted to assure that employees have safe working conditions.

A number of special payrolls are made out in the personnel department. Pay is allowed employees who become ill and cannot work, to those who are injured, and to those who must serve jury duty. The medical record of employees is also a great concern of the personnel department. Before an employee is hired he must undergo a physical examination. The examination findings are checked in the personnel office, and a number of applicants are rejected.

Once a person is hired by Cosden, a complete record on his activities is kept on file along with a brief history of his life. Smith can tell how many times an employee has been absent from work, the reason, and the medical treatment or insurance received. Records are kept also on all promotions and pay raises.

It is through the personnel office that papers for medical treatment are filled out and approved. Attendance by physician is immediate for employees if necessary. Insurance claims are also processed through the personnel office.

Job bidding by employees is done through the personnel office. When a vacancy occurs and applications are made for the job, a personnel department official distributes bids to the foreman concerned. The foreman then picks the man he wants from among the bidders. The Cosden personnel department also prepares a weekly column for The Big Spring Daily Herald entitled "Cosden Chatter." This column deals with activities of corporation employees and Cosden events of importance.



It is indeed, a pleasure to salute you on your Silver Anniversary in the Petroleum Industry.

The Cosden Petroleum Corporation has made great progress in mobilizing West Texas...

Our towns, communities, farms and industries have grown from the "oxen" era to the "jet" air age... The petroleum industry is greatly responsible for this progress.



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This Trip Set A Pattern

Early in 1947—in February—this train load of petroleum products moved out of Cosden's refinery at Big Spring and was destined to make history. It was the first under a special trainload rate, the "pipe line on wheels" schedule. Since then, 1,583 such trainloads

have moved from the refinery to North Texas markets. Roughly one-third of Cosden's traffic today is handled under this arrangement with the T&P Railroad.

Cosden-T&P Trainload Rate An Innovation In Industry

History was made by the famous "Pipe Line on Wheels" rate negotiated by Cosden Petroleum Corporation and Texas & Pacific Railway Company.

After World War II, Cosden management was convinced more of its output should be marketed more closely to the refinery. Consideration was given to building a prod-

ucts pipe line to northern Texas markets. The railroad thought it could quote a rate that would be competitive with pipe line costs. As a result of negotiations with the T&P, the traffic department gained temporary approval (the rate was later made permanent) and the special rate for moving products in

trainload lots became effective Dec. 10, 1946. The first trainload shipment moved from here early in 1947.

Since that date the railroad has hauled for Cosden Petroleum Corporation a total of 1,583 trainloads of petroleum products under the special trainload rate.

This is the first and only rate of its kind to be established in the United States. Approximately one-third of volume moved by Cosden is under this special rate. Two other concerns had similar rates established but did not utilize them. Now three others have indicated they will use the plan pioneered successfully by Cosden and the T&P.

Training And Experience In Exploration Department

Varied training and experience is required of the personnel who make up Cosden's exploration department.

Engineers, geologists, a geophysicist, land - lease men, an oil "scout," and an attorney all work in the exploration division at Cosden.

Each one is a specialist in his field. Chief geologist is J. S. Kelly. Other geologists are Ell McComb and George O'Brien Jr., Big Spring; Jay Endlicott, Corpus Christi; and Dave Hopkins, Big Spring, subsurface geologist for the company.

Geophysicist is George Larson who holds a master's degree in geology. He heads a 14-man geophysical crew which operates Cos-

den's new seismographic equipment.

Kimball Guthrie is the department's scout. Joe Moss is attorney and head of the division order section which must keep track of all royalty divisions in connection with land from which Cosden produces oil or gas.

Alma Gollnick is manager of the land-lease section and is rated tops in her field.

Top man of the exploration department is Cosden's vice president, Marvin M. Miller, who is acquainted with every phase of the oil business and who "grew up" in and with the oil industry.

Tank Cars Have Been Pacemakers

"Firsts" are almost a dime a dozen with the Cosden tank car fleet.

On Sept. 7, 1941, when 50 tankers were transferred to be leased Britain and the East was in a petroleum bind, Cosden shipped the first solid trainload of gasoline to the eastern seaboard from the Southwest.

Again on Nov. 19, 1943, Cosden made up the first solid trainload of crude oil to move to the Eastern seaboard. These were loaded at Midland and were the first of thousands so handled. Cosden shuttled hundreds upon hundreds of cars of oil from here to the Midwest. The company also took the lead in shipping vast quantities of oil to the West Coast and at one time the T&P yards here were literally jammed with traffic.

During the years of 1942 and 1945, 1946 and 1947, Cosden led the nation in the miles travelled per tank car. One of the chief reasons for this was that the traffic department knew every day the whereabouts of every car and so routed and directed them that they were rolling every possible moment.

960 Acres In Refinery Grounds

Cosden Petroleum Corporation's refinery grounds, located just east of Big Spring, cover a section and a half, or around 960 acres.

Only half of this acreage is now being used, however, leaving plenty of room for expansion.

Engineer J. T. Johnson points out that most installations are in a half section tract—320 acres—between Highway 80 and the Texas and Pacific Railway lines. Another quarter section north of the tracks has been developed also.

Cosden's refinery offices, shops, processing area and tank farm spread out along Highway 80 for approximately a mile.

The processing area—including still operations, treating and pumping units—covers about 40 acres. Shops, labs, garages, and office buildings cover eight acres.

The tank farm, which has almost 150 tanks, covers an area of about 250 acres. Other land by the highway is covered by plant roads and miscellaneous installations.

The chemical plant, paraxylene unit and BTX installation north of the railroad tracks cover around 150 acres.

Cosden's huge shops building itself almost covers half an acre. It is 100 feet wide and 240 feet long, making 24,000 square feet. The large garage covers 2,400 square feet, and the new lab building has more than 7,000 square feet.

Map Library Is Extensive

It takes maps to keep up with the oil business. And Cosden has plenty of them.

The corporation's land and lease department has maps of every county in West Texas and many other regions. The maps are detailed to the extent that they show ownership of every tract of land in the areas they encompass.

The ownership maps are kept up to date, with every change in title shown almost as soon as it occurs. The maps also show the ownership of leases and the locations of any producing oil wells or abandonments.

Maps of the West Texas area are maintained at Cosden's central offices in the Permian Building. Cosden's new branch office at Corpus Christi will maintain maps of that region, and maps of the Rocky Mountain area are kept at the company's Denver office.

Of course Cosden doesn't depend entirely upon maps to keep abreast of oil exploration and production developments. Geologists receive daily and weekly oil reports, published by Rhinehart, which show all locations, drilling progress and dry holes.

In addition, personal scouting is conducted throughout the areas where Cosden is active. Kimball Guthrie handles scouting work for the company, picking up drilling and other reports where ever he can, visiting other operators and observing their activities.

Company Makes Special Contracts On New Products

Cosden likes to make deals. Frequently, when Cosden comes up with the ability to make a new product, contacts are made with consumers logically in that field. The carbon black case is one in point.

Cosden developed the right type of oil and then interested Cabot Carbon, which had the processing know-how and marketing skills, in establishing a plant nearby to utilize the oil.

Similarly, Cosden had a good yield of styrene. One of these, paraxylene, is used in making Dacron fabric. Cosden agreed to furnish the stock and Phillips Chemical Company put in a new type of processing plant.

Cosden also supplies raw materials for solvents, paints, insecticides, food supplement and bottles, etc. This arrangement proves more practical in many instances for Cosden and for the concern which utilizes the materials.

Research Dept. Has Touched Off Heavy Spending

Cosden's research and development division started with a modest venture that has triggered multimillion dollar investments.

Work in this field started in 1946. After some experimentation, a small plant was designed and installed at a cost of \$8,000. This resulted in recovery of crystalline acids and mercaptans, which had been material for the sewer.

The results were small dollar-wise but large percentage-wise. At any rate they were enough to finance experimentation and research and development work. As the program continued, its scope enlarged and led logically into the petro-chemical field.

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It has been our pleasure to aid Cosden in its Oil Development Program . . .

We are looking forward to many more years of association . . .



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Big Spring, Texas



'Shops' Building Fills Demands Of Today

Most Modern Shops

Cosden's "shops" building, located at the refinery just east of Big Spring, is one of the most modern in the United States. It was recently built at a cost of approximately \$130,000. The building, which covers some 24,000 square feet, houses shops for all the crafts relating to refinery work. In addition to a large tool room, there are shops for welding, boiler and sheet metal work, machine repair, carpenter work, pump and engineering repair, painting, motor and electrical repair, and blacksmithing.

Cosden Refinery has one of the most modern "shops" buildings in the country. Covering 24,000 square feet and

costing approximately \$130,000, the building houses shops for all the crafts relating to refinery work. It is divided into nine major departments.

Traffic Dept. Watches All Transport

The traffic department of Cosden is a service organization set up to furnish advice in regard to any transportation problem.

Although its job is primarily that of rail transportation, it furnishes advice in regard to any transportation problem because transportation laws, rates, rules and regulations applicable to state and interstate commerce are complicated and exacting.

In addition, the department represents Cosden in transportation matters before the United States Congress, Interstate Commerce Commission, Railroad Commission of Texas, and several trade associations including the American Petroleum Institute and the American Association of Railroads. The department also is active in several shipper organizations such as the advisory boards, shipper traffic committees, and the National Industrial Traffic League. The department maintains direct contacts and relations with railroads, truck lines and occasionally the air lines.

In addition to a large tool room there are shops for welding, boiler and sheet metal work, machine repair, carpenter work, pump and engine repair, painting, motor and electrical repair, and blacksmithing.

Designed by Cosden's chief engineer, E. B. McCormick, the building contains all the latest gadgets used in the various crafts. Any item on the refinery grounds which needs repair is taken to the shops.

Construction of the building is of steel and transitite, which means that it is heat resistant and finely insulated.

A strip of material known as "chloroform" lines the top of the 24-foot building along each side. This is a plastic material which admits light but resists heat. The natural light is supplemented by a fluorescent lighting system.

Windows, which line each side of the building, are made of the chloroform material also. The windows are not transparent but they allow natural light in abundance.

Two large doors which will permit passage of trucks are in each end of the building. This allows heavy material to be moved right to the repair site. A large five-ton electrical crane slides the length of the building, facilitating movement

of heavy materials to any shop desired.

Rube McNew, general foreman of shops operations, says that the large crane can carry up to 10 tons when necessary. It will slide horizontally, longitudinally, and vertically.

Three small overhead cranes in various shops augment the larger

Full Department Serves Solely For Car Maintenance

Maintaining its fleet of tank cars is no simple matter for Cosden Petroleum Corporation.

One separate department is set up to devote itself to the task of repair and maintenance. W. A. Laswell is in charge of this unit and there are 14 men assigned to it.

Repairs, although made by Cosden, conform rigidly to agreed specifications set forth by the American Association of Railroads. Standard, approved materials are used and outside inspectors may check whenever they please to see that work and material are in line with association requirements.

Cosden's tank car department is quite versatile. It has modified cars and even insulated a number. One of the big jobs is repainting and relettering to keep Cosden's best foot forward while on the road.

device and two arm-type cranes are located in the building.

McCormick points out that having all crafts under one roof makes for maximum efficiency. When one item must be sent to workers in various crafts, the communication between sections is easier and quicker.

Before the new shops building was in use, the crafts were housed in different structures at the refinery. The new building was constructed when the old one was demolished to make room for an alkylation unit.

Part of the shops building is equipped with a new fibre-glass sound proofing material, which cuts noise to a minimum. The sound proofing is over the welding and blacksmithing sections.

Partitions in the structure have been cut to a minimum. Small offices are located in the corners,

and the rest of the 100 by 240 foot structure is completely open.

The general tool room is encased by an expanded metal lathe. It resembles wire netting, and air circulates through it easily. Shelves in the tool room are also made of the expanded metal lathe so that air can be circulated through them too.

The tool room is kept locked, and tools are taken from the room to other parts of the building on motorized carts. The carts are also used to take tools from one section of the refinery to another.

Free circulation of air is insured by blowers in the ceiling of the building and about 14 air conditioning outlets spaced at intervals around the walls. The outlets supply heat as well as cool air, being controlled by thermostats.

Approximately 150 people work out of the building, McNew says, but only around 60 at any one time.

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Progressive thinking and progressive planning . . . have made Cosden a leader among refiners for the past quarter century. The multi-million dollar investments . . . the important payrolls . . . cold business facts that make Cosden, and their progress, a credit to Big Spring and the entire petroleum industry. We are proud of Cosden's accomplishments, happy to have been identified in this progress with them. We congratulate the entire Cosden organization as they mark their first 25 years.

Refinery Engineering Co.

P.O. Box 1558

TULSA, OKLAHOMA

Big Spring Daily Herald

COSDEN EDITION, BIG SPRING, TEXAS, SUNDAY, JULY 18, 1954 COSDEN EDITION

Cosden's Growth Reflects Progress In Oil Industry

Oil refining—and Cosden Petroleum Corporation—has come a long way since the days when the old "batch still" was the only means of breaking the raw product into its various components.

From the slow, tedious process of boiling off one product at a time—gasoline first, then kerosene, then gas oil, etc.—the industry has developed equipment and processes that take even the petroleum molecule apart and put it together again in the form of better fuels and other products.

Although Josh Cosden's Big Spring refinery wasn't even a dream when the old batch still was "perfected," Cosden's beginning in 1929 would be considered primitive in the light of advances which have made possible the near-miracles now turned out at the refinery.

The Cosden refinery in 1929 consisted of a pipe still, which was developed in the mid-twenties, and a thermacracker of the type which received its greatest development in the twenties also.

Today, the plant is equipped with the very latest in equipment for producing high-octane gasolines, lubricants of all kinds and a host of petrochemicals which find their way into scores of products seemingly unrelated to the oil industry.

In the latter group are the synthetic fabrics, such as Dacron, insecticides, livestock feed supplements, biotics, detergents, explosives, saccharine—to name a few.

Actually, as it is explained by Dan Krause, assistant to the president, the flood of new and different products from a modern refinery isn't a result of refinery development.

Rather, Krause says, refining developments are a consequence of the growing demand for more and better products from the petroleum industry.

In the beginning, or at the time the first oil well "came in" back in Pennsylvania in 1859, there was virtually no demand for petroleum.

Crude's slight value lay in its limited use as a medicine and as a sorry sort of axle lubricant which dripped off about as rapidly as it was poured on a bearing surface.

Pioneer refining processes were developed, however, to help meet the demand for oil for the nation's lamps. Whale oil was principally used for this purpose prior to the latter part of the 19th century.

By 1900, petroleum refineries were turning out kerosene in such quantities that the whaling boats were going out of business.

The early-day refining processes also turned out a heavier residue which was more suitable for lubrication than the thin unprocessed crude.

Then came Henry Ford and the other automotive pioneers with their horseless carriages. These machines demanded fuel, and petroleum was its source.

Refineries turned their primary attention to the production of gasoline, but continued to draw kerosene and the residual greases from the improving "stills." At about the same time, Thomas A. Edison's electric light began to eliminate the demand for kerosene and efforts were further concentrated on gasoline production.

World War One—a mechanized conflict—added to the demand for gasoline. At that time, Krause explains, distillation was the only refining process. And it was proving inadequate. Out of a 42-gallon barrel of crude, the stills were able to wring only about 10 gallons of gasoline.

Refiners already had taken steps to hasten the refining process and were looking for means to increase the output of gasoline. The old batch stills, in which the gasoline was boiled off and then temperatures were raised successively to boil off kerosene and gas oils, were hooked in series.

The first unit in the series was fired for gasoline production. Next in line was a kerosene unit, under which fires were a little hotter. On down the line would be additional distillation units, each a little hotter than its predecessor and each giving off products in the higher boiling ranges.

Those batch stills were developed to the point of continuous production, with fresh crude constantly being introduced and with the "finished products" coming off in an unbroken stream.

About the same time, vacuum stills were introduced. In these, lubricating oils could be distilled off at temperatures sufficiently low to prevent their "cracking."

Pipe stills, of the type with which Cosden started its refining operations, became practicable in the mid-twenties. Crude circulated through these in a maze of pipes which were exposed to heat. As the crude vaporized, the gases were

ejected into a fractionating column.

Inside the fractionating tower, which is used even with the catalytic cracking units such as Cosden operates, trays are set at different levels. Temperature of the various trays is closely regulated, the temperature of one corresponding to the boiling point of gasoline, another heated to near the kerosene boiling temperature, and others with temperatures matching boiling points of other crude oil components.

As the vapors from the still flow through the column, those in the gasoline boiling range condense on the gasoline tray, with the others condensing on the trays corresponding to their liquefying temperatures.

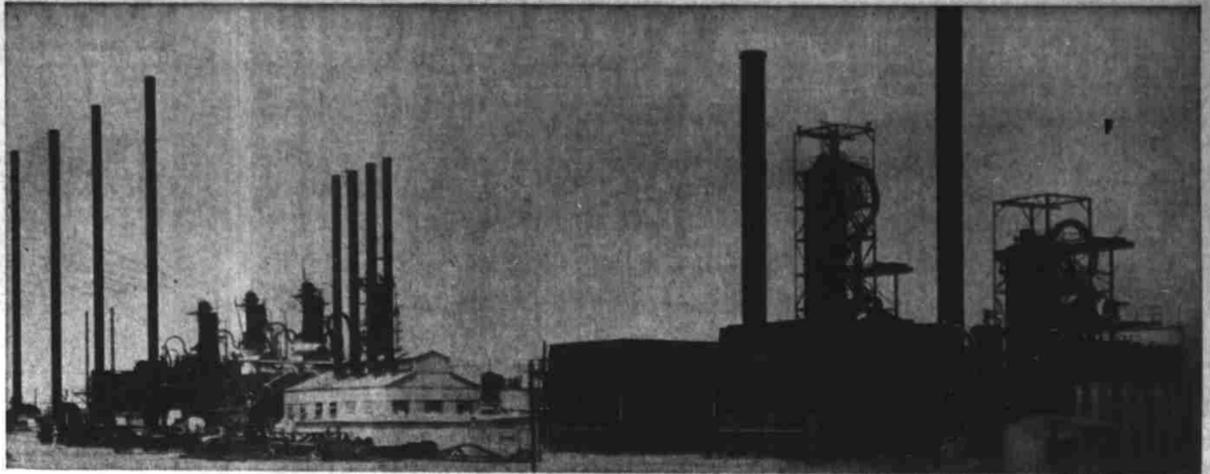
As the vapors condensed to the liquid state, the gasoline, kerosene, distillates were drained off through lines to storage.

The oil industry's big problem at the time of these developments in refining processes was to supply more and more gasoline to satisfy the increasing demand for the fuel. Crude production was limited, so engineers concentrated their efforts on methods of getting more gasoline from each barrel of crude.

Gasoline production was increased immensely by the perfection of "cracking" processes which enabled refiners to actually "break down" the heavier portions of crude (those left over after gasoline, kerosene, etc., were distilled off) and transform the residual products into gasoline. Krause says cracking processes jumped gasoline output to 20 gallons per barrel of crude. It had been 10 gallons per barrel with the early-day "skimming" or distilling operations, so cracking of the raw materials was equivalent to the doubling of crude oil production.

First of the cracking processes relied on heat to break down the heavy crude residues. Stanolind Oil Company engineers were among the first to develop thermacrackers—prior to 1920. Their process and other thermacracking methods were largely developed in the twenties.

One of Cosden's first crude refining units was a Jenkins thermacracker, constructed in 1929 along with a pipe still. Cosden constructed and put into operation two Dubbs thermacrackers in the thir-



The Past And The Present

The Cosden refinery, as it looked in 1929, is shown in the top photograph. The modern refinery which spreads over 960 acres just east of Big Spring is shown as it appears today in the lower view. Cosden Petroleum Corporation has kept pace with refining developments throughout the years, adding new equipment to its plant almost as rapidly as new processes have been perfected.

America in 1938 and Cosden's catalytic cracking unit was put in operation in 1949.

The catalytic processes resulted in a better product distribution, Krause explained. In other words, they produced a better grade of gasoline and a larger volume of the lighter gas oils of a higher quality than in the thermacracking processes. More gasoline per barrel of crude also was achieved.

In the catalytic cracker, heavy gas oil is vaporized in the presence of a catalyst which chemically breaks down the molecules of hydrocarbons—actually "making 11-12 ones out of big ones" and re-

arranging the molecular structure. The process provides more material in the gasoline boiling range (consequently, more gasoline) and a more efficient product because the normal straight-chain molecules are rearranged as branched-chain particles—much better-performing in automobile engines. There are several methods for use of the catalytic process, the one at Cosden being of the "fluid type" with the catalyst constantly being regenerated as it is circulated through the cracking unit. Gases from the catalytic unit must go to the fractionating column for separation, of course. Due to the greater change in molecular structure in the cracking process, "cat cracked" vapors are more suitable for use in polymerization—a process closely allied with both thermo and catalytic cracking operations. In the polymerization unit—of the type which Cosden operates here—two of the light gas molecules are put together to form a heavier molecule which is in the gasoline boiling range. More simply, two gas molecules are assembled to form a gasoline molecule. This process was developed in the late 1930's and its product be-

came widely advertised as "poly gasoline." Cosden's poly plant, built in 1938, was completely modernized after the catalytic cracker was constructed in 1949 to take advantage of the new supply of gases which could be reconstructed molecularly to form gasoline. The catalytic cracker and the demand for better fuels also resulted in the introduction of alkylation processes which accomplish practically the same ends as polymerization by a different route. The Cosden polymerization plant is being converted to the alkylation process which will continue the production of butane and propane, the liquefied petroleum gases, as a by-product of gasoline production. Another process developed during World War Two as a step toward up-grading gasoline was re-forming. In this process, which Cosden

See GROWTH, Page 11

Happy Anniversary on . . .



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Pipe The Pipes

Untold miles of pipes, ranging from an eighth of an inch up to 24 inches in diameter carry the life's blood of Cosden's refining and manufacturing. Above is a maze of the lines which carry the fluids, gases, products and water to and from various stages of the processes. There are so many hundreds of miles of pipe involved that no one has ever ventured an estimate of the total.

Looking For Pipe? You Can Find All Kinds And Sizes In The Cosden Maze

Several hundred miles of pipe, ranging in diameter from an eighth of an inch to two feet, can be found extending across Cosden's refinery grounds.

These pipes, made of carbon steel and alloy metal, defy description. Distorted by their various valves and fittings, they wind in and about refinery units like the tentacles of a monstrous serpent.

Some are designed to withstand subzero temperatures while still others will take heat up to 1,200 degrees. Project Engineer C. M. Phelan says a few pipes are designed to take pressures up to 900 pounds per square inch.

He also says that the piping system is the life line of the refinery.

Actually there are two complete pipe systems at Cosden. One is the utility piping network which distributes steam, cooling water, domestic water, plant air, instrument air, sewer, etc. The other is the process piping system which carries the refinery products.

It is the process piping that requires the most effort from work crews. And there are four work crews, 20 men, assigned to nothing but maintaining and installing piping.

The process piping system at Cosden comes under four headings—transfer (charge), interprocess, intraprocess, and yield. Pipe of each type is plentiful.

The transfer pipe "charges" stock from various tank locations to the actual refining units. Intraprocess piping carries components to different areas within each unit and interprocess piping carries the components between the units. Yield pipes take the refined products to treating, storage and shipping units.

All of these pipes are designed for the specific purpose for which

they are used. Size, pressure resistance, temperature involved, corrosion, expansion, stresses, and many other things must be taken into consideration. Refinery engineers run into a different problem with each pipe use.

Through a period of years, however, the engineers have developed a set of piping specifications for practically every use in the refinery, whether it be for hot acid lines or water. These specifications are in accordance with recognized codes such as the SAC, ASME, and ASTM, Phelan points out.

Every pipe which has been installed at the refinery in recent years has been placed above ground, and approximately 85 per cent of all piping is now above the surface. This facilitates maintenance and cuts down on corrosion.

Overhead pipes also require a

large number of supporters. Thousands of the small metal stands are spaced about the refinery grounds to hold pipe, Phelan said.

Maintaining the pipes also includes the servicing of fittings, valves and gaskets. The exact type of accessory must be used or the pipe loses its effectiveness. And when a pipe is made of alloy, so are the accessories.

Phelan explains that more and more welded pipes and fittings are being used in refineries. He describes the change to welded connections as the "modern transition" and reports that Cosden has found it very successful.

Not only is Cosden using the welded connection system, but quite a bit of pipe is prefabricated in the refinery shops. Sections of a pipeline are detailed in the shop and constructed. Then they are

taken to the field and fitted together.

All pipes at the refinery are inspected periodically for wear and fatigue. Frequent replacements are common, as the crews work on the idea of "preventive maintenance." Weak pipes are pulled before there is a chance for a breakdown.

Utility piping problems are also numerous. Particular care has to be taken of the pipes which carry more than 300,000 pounds of steam per hour. Other pipes at the refinery can carry 1½ million gallons of cooling water per day. Six cooling towers must be fed.

An ever-present problem in water pipes is corrosion. Phelan states that lines as big as four inches in diameter have closed due to chemical deposits in the water. Checked constantly are the water pipes in the emergency fire fighting system.

Our Congratulations

On
Your



Earl B. Stovall
Agent
Continental Oil Co.

Injury Benefit Program Followed

Employees of Cosden who are injured while working are temporarily dropped from the regular payroll during absences, but they are paid the difference between compensation insurance and regular salaries.

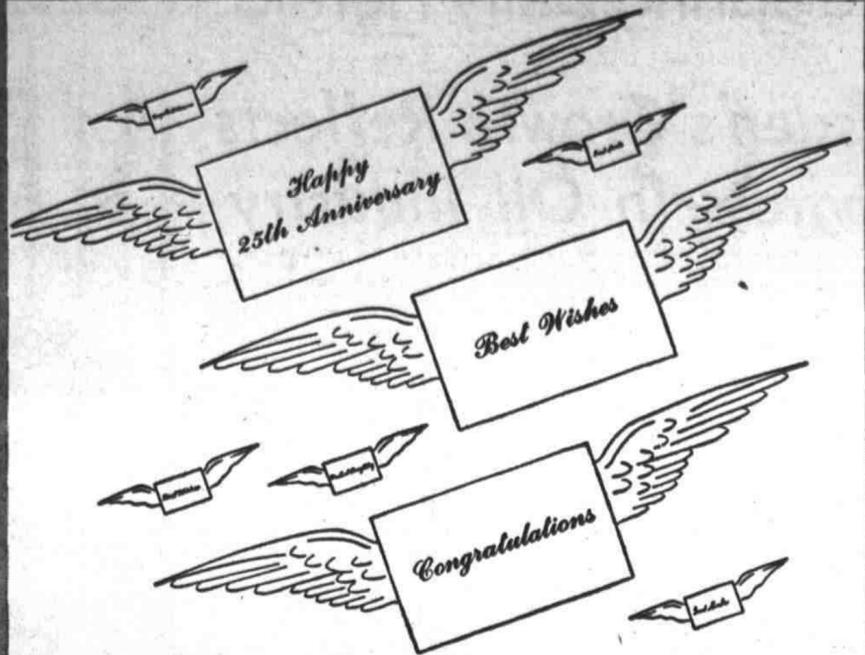
Special supplementary payrolls are prepared monthly for the pay. It was announced by Jack V. Smith, personnel manager. This added pay does not extend past a 30-day period except for long-term employees, he said.

In the case of long-term employees unable to work, pay for extended periods is worked out. But each case is handled individually, Smith said. Employees must report injuries to their foremen.

Fractions Shipped For Rubber Making

A by-product of Cosden's Hydrofin petroleum gas plant is butadiene-butylene fractions.

These have been used as a part of the charge stock for the polymerization plant. However, in June of 1953, Cosden shipped quantities of the fractions to the Reconstruction Finance Corporation for use in the manufacture of synthetic rubber.



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fly for Cosden...!
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Petroleum Progress For 25 Years

From the very beginning, when Cosden Refinery was just a dream, the folks at Cosden planned a plant that would be surpassed by none in West Texas . . . This dream has come true . . . The Cosden Petroleum Corporation has made great strides in the development of oil and refining processes . . . We are proud of our business associations with Cosden . . .



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Where Hard Water Turns Soft

It takes between a barrel to a barrel and a half of water for each barrel of crude oil put through Cosden's refining and chemical units. Yet water now in use is notoriously hard. Cosden gets around this through large water softeners. One reduces water of almost 1,000 parts per million hardness to less than 50 ppm for cooling purposes. Another unit pulls the hardness down to 5 or 6, and when cut to condensate it is softened to as low as 3 ppm.

Pioneer Work Done In Use Of Sewage Effluent Water

Much water goes into making of fuels and chemicals.

For every barrel of crude oil put through Cosden Petroleum Corporation's refining and petrochemical plants here, approximately one and a half barrels of water will be required. Obtaining ample water of suitable quality in semi-arid West Texas challenged the ingenuity of Cosden's technical staff.

Cosden thus became a pioneer in the industrial use of sewage effluent. From its inception in 1929, the refinery had depended upon small wells which not only were increasingly inadequate but which produced hardness up to 1,300 ppm. By 1943, with new processes and critical war demands, Cosden could no longer afford periodic shut downs to rid equipment of scaling and corrosion damage.

Today, through use of effluent and extensive treatment, Cosden has stretched the periods of interruption for inspections from one or two months to a year or 18 months. Behind this accomplishment, lies a fascinating story.

Engineers sensed and were im-

pressed again with problems peculiar to use of effluent. One was the frequency of chemical change. Another was the presence of some organic material; still another the presence of ammonia. In overcoming these factors, Cosden has ascertained boiler feed water will cost 22 cents per 1,000 gallons and cooling tower water 18 cents per thousand. Constant laboratory checks are required. These costs will be reduced substantially when the municipal system switches to lake water.

There are two primary units of treatment of the effluent which is picked up at the city's disposal plant and piped half a mile to the Cosden refinery. One is a hot lime and soda ash treatment for water in cooling systems.

Here water is brought to 170 degrees, utilizing exhaust steam created as a by-product of processing. Hardness in the water reacts with chemicals and precipitates as a slurry at the base of conical treating tanks. Hardness, sometimes as much as 1,000 ppm, is brought down to 50. This unit handles 400 gallons per minute and soon will

turn out 160 more to meet needs of the new alkylation plant.

Boiler feedwater, however, must be almost totally soft. A second 400 gallon per minute unit utilizes the same process but at 220-230-degree temperatures, hardness is reduced to 12 ppm. Subjected to hot phosphate, it scales down to 4-6 ppm. In both instances heat helps flush off ammonia. Because of organic properties, boiler water is subjected to an anti-foaming agent.

While domestic usage contributes to constant change, flexibility of Big Spring supply between well water of varying hardness and that from lakes creates special problems. Flash floods multiply headaches for the water plant. When violent thunderstorms hit, plant Foreman Ray Shaw and W. E. Gibson, utilities engineer, sound the alert for radical water changes. Sometimes infusion of soda ash will be increased from 1,500 to as much as 7,500 pounds per day and lime from 4,500 to 8,000 pounds per day.

The utilities department must supply water sufficient for production of 330,000 pounds of steam per hour through eight boilers. Steam condensate recirculates and is combined at the treaters with new boiler stock. Water in cooling systems does not recirculate to the treaters. It remains in its own units because of corrosion inhibitors and is supplemented with 10 to 14 per cent new water to replace

Bulk Plant Puts Out 16 Million Barrels A Day

Cosden Petroleum Corporation sells upwards of 18 million gallons of products monthly through the refinery bulk station.

Gasoline heads the sales list, with approximately 12,000,000 gallons processed each month, according to Henry Stewart, bulk plant manager. Approximately two million gallons of jet fuel are sold in the same period, and other sales consist of kerosene and diesel fuel.

The bulk station is open 24 hours a day, and sales are made to anyone desiring to buy. A number of major companies are regular customers, purchasing products refined and blended to their specifications.

It is at the bulk station that Cosden jobbers sometime pick up products that are distributed to the Cosden service stations of the area.

There are five loading docks at the bulk plant, and 10 trucks can be loaded simultaneously. There are a number of hoses at each truck stop, and the driver can fill up his various truck compartments with different products if desired.

Storage tanks for the products sold through the bulk plant are located at the refinery tank farm. Pipe lines deliver products to the loading docks. The products are gauged by meters as they are pumped into the trucks.

Sixteen people are employed at the bulk plant, four being on duty at each shift.

Special Benefits In Cases Of Illness

Employees of Cosden Petroleum Corporation are paid on an hourly basis. Those receiving less than \$325 monthly are paid on special supplementary payrolls when absent from work because of illness.

Personnel Manager Jack Y. Smith says employees with more than a year's service are not paid for the first day's absence. On the second day absent, the employee is paid half of his regular salary. On the third day and up to 30 days, he is paid full time.

The employee is expected to present satisfactory proof that his absence is due to incapacitating illness, however. Long term employees are paid for extended illness periods, though each case is handled individually, Smith said.

that flowed off to maintain desired quality. All of this adds up to a demand of 1 million gallons per day in winter and 1 million gallons per day in summer.

Shaw is looking forward to the time that Big Spring goes on water from Lake J. B. Thomas. With a hardness of 50-100 as compared with 900 or more for that from Martin County wells, he hopes he can cut down on the treatment bill and toss away the aspirin bottle.

POINT OF PRIDE

Lubricants Made To Rigid Specifications

No two people make biscuits alike, and the cook probably is the difference.

That's why Cosden takes special pride in its lubricants. Knowledge of the area and of the industries and uses under which oils and greases will be used have been combined with experience and skill of blending. Result are products with multiplied business volume by 133 to 270 per cent within the past decade.

Cosden does not manufacture its lubricants any more than the cook makes ingredients which go into the biscuits. Rather, it purchases base stocks from half a dozen selected sources.

"In this manner we are able to acquire the cream of the crop for certain uses," pointed out Dave T. Evans, who heads up the lubricants division. The base stocks provide full coverage for automotive and industrial oils.

Oils are blended to rigid (SAE) specifications. For some purposes asphalt base oils are indicated, for others paraffin base. Again different weights and degrees of viscosity will be required to do a maximum job under certain conditions of heat and pressure.

To the layman oil simply reduces friction. Actually, oil is also a cooling agent; it keeps bearings apart; it may neutralize acid action; it is a scavenger which constantly pulls off impurities or foreign substances which might damage motor and bearing walls. It is Evans' task to prescribe an oil which will get to the point where it can do its work, yet will not break down under heat or pressures to which it may be subjected.

One of the devices for precise blending is a "proportioner." Actually this is a series of meters which governs accurately the quantity of base stock that goes into a blend. This feeds to the homogenizer which gives a perfect mixture to prevent stratification or separation of the components. Then there may be additives to cut down on minor acids and moisture which might produce corrosion or internal rust.

There is hardly any limit to the blends for specific use. Cosden sells large volumes for irrigation wells, or truck gear heads. Cosden is a big supplier of oilfield lubricants. It has a substantial industrial demand as well as a growing agricultural market. The big end, of course, is automotive, a field in which Cosden's Heavy Duty motor oil shows

higher specifications than a number of nationally advertised premium grades.

Cosden's lubricant unit also fills and seals its own cans of lubricants. Marketing may range from quarts to drums. Grease is also rigidly designed for its intended use.

Several salesmen cover the West, North and Central Texas areas and big Cosden vans follow them with deliveries. Transports, too, carry oils and greases on occasions.

Ten years ago Cosden sold 238,342 gallons of lubricating oil per year. This was pushed to a peak of 592,817. Similarly 176,117 pounds of grease were sold. This rose to 553,543.

CONGRATULATIONS TO THE COSDEN PETROLEUM CORP. WYATT METAL AND BOILER WORKS

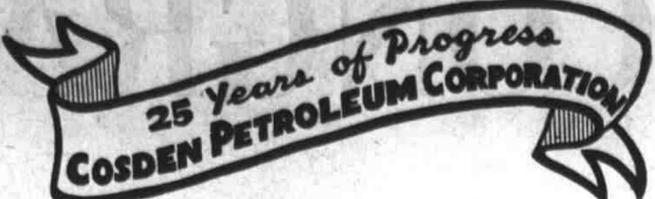
25 Years of Progress COSDEN PETROLEUM CORPORATION

25th COSDEN YEAR

We Congratulate You On Your 25th Birthday!

Davis Feed Store

701 E. 2nd



Progress . . . Unlimited . . .

Cosden's progress has indeed been amazing during the 25 short years it has been a factor in the petroleum industry. Its record of growth and expansion, development of new products and increased markets has been matched only by its continued search for oil. It is with this phase of Cosden's operation that we are proud to be identified. We offer our best wishes for continued success.

We Wish To Extend Our Congratulations To COSDEN... On Such A Great Stride In America's Industry.

TRI-SERVICE DRILLING COMPANY

Box 1785 Midland, Texas Dial 4-7702

Mr. R. L. Tollett
President
Cosden Petroleum Corporation
Big Spring, Texas

Dear Mr. Tollett:

From the house of "GOOD" greases, we extend to you warm congratulations covering your 25 years of progress.

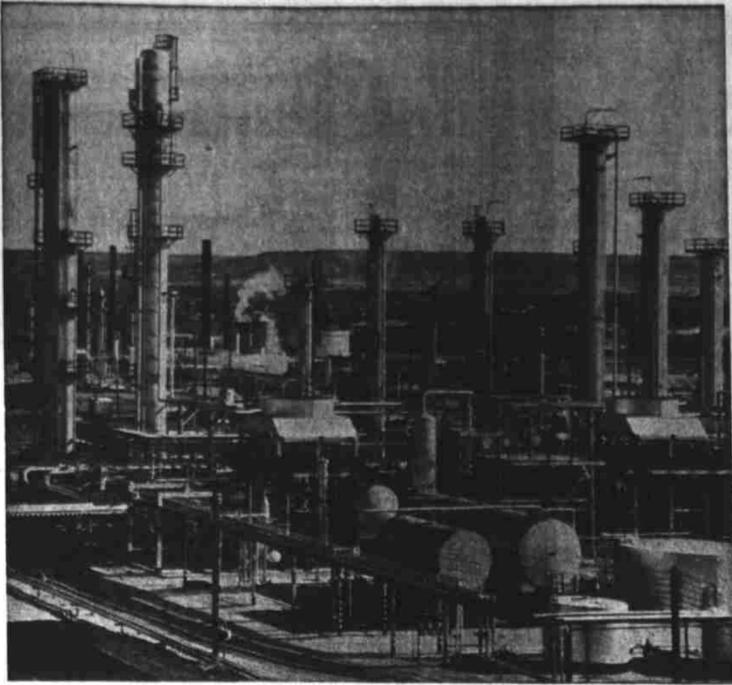
We are extremely proud of the opportunities you have given us to grow and advance with you. We pledge to you our complete cooperation as you confidently face the future.

Yours very truly
(Signed)
H. A. Mayor, Jr.
Exec. Vice President

HAM:cp

SOUTHWEST GREASE & OIL CO., INC.

Wichita Kansas



Where Chemical Magic Is Made

This is a view of the BTX plant of Cosden Petroleum Corporation. It is in this unit that aromatics are taken from straight run gasoline, without impairing its qualities as fuel. These are then extracted through solvent processes into benzene, toluene and xylene. In turn, one of the xylenes—paraxylene—is crystallized in a joint operation with Phillips Chemical to make material for Dacron fibre. The plant also reforms gasoline molecules to materially upgrade the fuel. A byproduct of the plant is hydrogen.

BTX Output Rates At Top For Purity

Cosden's BTX (benzene-toluene-xylene) plant turns out pure chemicals.

The xylenes, toluene and benzene are so pure that they meet reagent grades of the American Chemical Society. Dan Krausse, Cosden's assistant manager and engineer, says they are "about the purest in the country." Production of the BTX aromatics last year aggregated 309,089 barrels.

The chemicals are shipped in tank car lots to chemical laboratories and processing plants throughout the nation.

They come back—a small percentage of them, at least—in the form of plastics, nylon, synthetic rubber, pharmaceuticals, insecticides, and a multitude of other products used in home and industry.

Benzene is used in the manufacture of nylon, styrene, synthetic rubber and plastics. At Wichita, Kan., Cosden's benzene is used in the production of benzene hexachloride and other insecticides. Toluene from the Cosden refinery is for the most part shipped to the Joliet Ordnance Works, Joliet, Ill., where it is used in the production of munitions, specifically tri-nitro-toluene—TNT.

Four Work On Exchangers

The boiler and sheet metal shop at Cosden Refinery is where the heat exchangers are constructed.

In fact, most of the four workers' time is spent constructing the exchangers, although any kind of metal work is done. The heat exchangers are tube and shell devices which can exchange heat from one liquid to the cold of another, or vice versa.

These exchangers run from 18 to 18 feet long and from one to four feet in diameter. The pipes are inside the rolled metal shells. If cold materials are in the shells, it will lower the temperatures of hot liquids run through the pipes. Cold liquids are made hot if hot materials are in the shells.

The boiler and sheet metal workers can cut any pattern in metals and build containers to specification.

Machinist Work Takes Time Of Five Men

Five machinists are on duty in the machine shop at Cosden Refinery. They work with two pipe machines, two drill presses, three lathes, and a gasket cutting machine.

It is in the machine shop that all the "delicate" work at the refinery is handled. Practically all pipes for the refinery are made there, as well as gaskets for all the units.

Five Painters Kept Busy At Cosden Shop

Thousands of miles of pipe are painted per year by the five men assigned to Cosden's refinery paint shop. The 165 tanks on the refinery grounds usually get a going over once a year, too.

The five painters work out of Cosden's huge shop building, but they can rarely be found in their office. Most of the time they are busily engaged about the refinery grounds.

component. It is an important chemical raw material, used in the production of numerous chemical items.

Paraxylene, an isomer or one particular variety of xylene, is extracted in a special process here. Paraxylene is used in the manufacture of Dacron and other synthetic fibers.

A pioneer in the development of a new process for extracting paraxylene from the other xylene isomers is the Cosden Petroleum Corporation, in cooperation with Phillips Oil Company. Phillips developed the technique and constructed the paraxylene plant here. It is operated and maintained by Cosden.

The new technique involves the extraction of paraxylene through fractional crystallization. This is the cooling of the gases containing the xylenes to the point where paraxylene crystallizes, leaving the others in the gaseous form. The crystalline substance is easily collected in the solid state.

The old process was extraction by fractional distillation, or by heating the material to the point where paraxylene became a gas and was extracted in that form.

Still Demand For Kerosene

Kerosene at one time was the principal product of the refining industry.

But the electric light and the internal combustion engine have made kerosene one of the industry's by-products. The electric light abolished the "kerosene" lamp, which used to consume vast quantities of kerosene, and the gasoline engine and millions of trucks, airplanes and automobiles have supplied the demand for all of the gasoline that refineries can turn out.

The aviation industry is providing some demand for kerosene at present, however. Kerosene is blended with gasoline, naphtha and other petroleum products to form fuel for jet aircraft engines.

Cosden is supplying some jet fuel for the Air Force at Webb AFB. Some of Cosden's kerosene has been pumped back into the earth in the past year, also. It was used by oil producers for hydraulic fracturing the Spraberry Trend oil producing formations.

There still is some demand for kerosene as a heating fuel, and for the operation of tractors, but this is negligible.

Cosden produced 134,403 barrels of kerosene during the past year.

Plenty Fuel For All The Tractors

Cosden manufactures enough "LP gases" to run all the tractors in this section of the country. LP gases are the widely-used butane and propane, which are used as a tractor fuel and for kitchen ranges and heating equipment in rural homes where natural gas is not available.

Butane and propane were produced in the polymerization plant at Cosden and are by-products of the new alkylation unit. Production of LP gases at the refinery during the past fiscal year filled 203,091 barrels.

Electrical Repairs Handled At Refinery

Cosden Refinery has its own motor and electrical repair shop which is equipped with materials to make all minor repairs on electrical equipment.

It is necessary to send motors off for repair only when there is a major breakdown. And all line repairs are made by refinery electricians. The shop workers also repair control valves, gauges, meters, etc.

CONGRATULATIONS COSDEN

PETROLEUM CORPORATION

ON YOUR

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FAIRBANKS-MORSE

LOCAL REPRESENTATIVES

J. J. TAAFFE

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INDUSTRIAL AND DOMESTIC PUMPS

ELECTRIC MOTORS • SCALES • ENGINES



Congratulations

COSDEN Petroleum Corporation

on your

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ALL OF YOU...

BEST WISHES

We're Proud Of Our

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NELSON ELECTRIC SUPPLY CO.

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Dallas, Texas
Tele RI-6343

502 Avenue G
Lubbock, Texas
Tele 3-6006

Varied Types Of Fuel Oils Produced Here

Several varieties of fuel oil are produced by Cosden Petroleum Corporation at its refinery here. Included are the distillates, which are kerosene, diesel fuel and Nos. 1, 2 and 3 burner oils; and the residual fuel oils, called Nos. 5 and 6.

Virtually all of the diesel fuel is marketed locally, with the Texas & Pacific Railway Company taking 1,000,000 gallons per month. Diesel-powered trucks and stationary engines burn the rest.

Cabot Carbon Company, with a carbon black plant just east of the Cosden plant, takes large quantities of special residual fuel oil. It is highly aromatic of low gravity and viscosity and is burned to form carbon black. The 50,000,000 pounds per year of high quality black produced are used principally in automotive tire manufacture.

The fuel oil for Cabot is specially cracked and is highly aromatic. It is exceptionally unusual in that both gravity and viscosity are low. Most of Cosden's other burner oils are used for heating purposes in the Midwest where natural gas supplies are inadequate or unavailable for homes and industry.

Combined production of distillates at Cosden last year was 823,856 barrels. There was, in addition, 551,288 barrels of burner oils produced.

Asphalt Comes In Wide Variety

When you think of asphalt, you probably think of street or highway pavement.

But if you know your asphalts, you might enumerate a host of things which mention of the product could bring to mind.

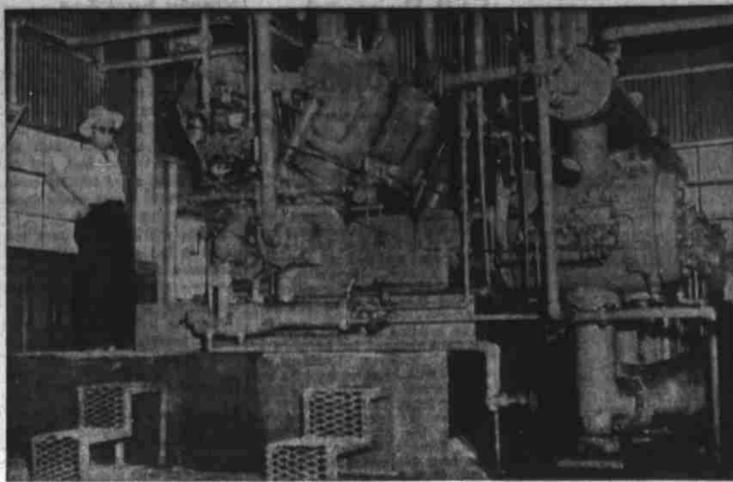
For there are many kinds of asphalt—and the various types are used for numerous purposes.

Cosden Petroleum Corporation produces no fewer than 45 types of asphalt, and the products are used for jobs ranging from roofing to ditch lining. Paving is one of their more important uses.

A special, catalytically-oxidized asphalt is made at Cosden for use in the construction of water-tight linings for irrigation canals and water reservoirs. This material is widely used in the Pecos Valley area and South Plains on irrigated farms where water must be transported for miles along open ditches.

Lining of the ditches or canals prevents the loss of water to the soil through which the water is being transferred. In huge reservoirs where irrigation or other domestic water supplies are stored, the plastic-like lining also prevents the water from "soaking" into the ground.

There were 1,210,559 barrels of asphalt processed at the local refinery during the past year.



Pressures For Processes

This is one of the compressors at Cosden's refinery which mesh great quantities of air into pressures up to 90 pounds per square inch. These are required in the operation of many of the units. The paradox is that some processes require vacuum instead. Ray Shaw, who directs utilities for the plant, watches over the big compressor which is powered by natural gas.

Under Pressure And Without It, Air Put To Valuable Use

Air pressure—or a lack of it—is used in a variety of ways in the operation of equipment at the Cosden refinery.

The air "pressure" ranges from a near-vacuum, which holds up but 10 to 20 millimeters of mercury, to 90 pounds per square inch.

If Cosden engineers had to choose between vacuum and compressed air—and do without one or the other—they probably would choose to keep the vacuum. For without the vacuum "still" many of Cosden's products would be impractical, if not uneconomical.

Communication Net A Complete Affair

There is no communication problem at the Cosden Refinery. Practically anyone on the plant grounds can be contacted in short notice—whether in offices or at the processing units.

There are 104 refinery phones, located in strategic spots about the 960 acres covered by plant installations. People phoning can at least reach the area where the individual they wish to contact happens to be.

There are also 15 loud speakers at the plant. They are located in the various units, offices and shops. Practically anyone can be hailed in a moment's notice over the speakers.

And to expedite trucking within the refinery, each vehicle is equipped with a two-way short-wave radio system.

A striking example of the importance of vacuum lies in the vacuum still for the processing of asphalt. Vacuum distillation of the heavy residues of crude after gasoline and the lighter portions of the oil are removed results in at least 45 grades of roofing and paving asphalts.

Distillation of these products under atmospheric conditions would be impossible because the tremendous heat required would break up the molecular structure of the materials before they could be separated. However, distillation is possible at much lower temperatures under a vacuum, and the various asphalts may be obtained without the destruction of their physical properties.

Vacuum distillation also is used in the regeneration of the solvent, a glycol solution, for the urex aromatics extraction plant. Without the comparatively low temperatures at which the solution may be distilled under vacuum, a chemical reaction would be set off to change the character of the glycol, rendering it useless.

Two types of compressed air are utilized at the refinery. "Plant air" serves in the operation of maintenance equipment, in cleaning and in moving catalyst through the catalytic gasoline cracking unit.

"Instrument air" is used in the operation of all pneumatic instruments and equipment at the plant. These operate valves, regulate pressures, and actuate float controls.

Plant air and instrument air differ almost as much as night and day. Plant air is compressed to 90 pounds per square inch and no effort is made to dry it.

Instrument air, however, must be absolutely dry and free of dirt and oil to avoid plugging and corroding delicate instruments. It is used under a pressure of 60 pounds per square inch.



Source Of Supply

Hundreds upon hundreds of items are stocked in Cosden's main warehouse to supply the complex operations of modern refining and petrochemical plants. Virtually every item needed on the refinery is kept on hand, and if others are needed they are brought in quickly via air express. W. G. Simpson checks out a valve to be used on one of the jobs.

A RICH STOCKROOM

8,000 Items In The Cosden Warehouse

Upwards of 8,000 items are contained in the warehouse at Cosden's refinery, and they are valued at about a half million dollars. Everything from ball bearings to castor oil can be found in stock, says James Edwards, warehouse supervisor.

It is the duty of warehouse personnel to maintain ample supplies of all materials needed in the operation of the refinery. Approximately \$175,000 worth of material is handled each month, according to Edwards.

Actually the warehouse contains run-of-the-mill supplies, maintenance materials and chemicals. Items such as cotter pins weigh only an ounce, while some pieces of heavy machinery weigh as much as 5,000 pounds.

A large building and a tabernacle shed are used for warehouse supplies. Edwards estimates the two structures cover about 15,000 square feet. The building is honey-combed with shelves and tables for small goods.

A perpetual inventory is kept of all items, and Edwards can determine at any time the exact number of units in stock of any given product.

Materials used in all the smaller construction jobs are purchased through the warehouse. If a building is to be constructed, bricks, steel and other items are requisitioned through Edwards.

Special items needed for regular refinery operation are also requisitioned. If the warehouse does not have the particular item, it can always be obtained. However, Edwards says that it sometimes takes three or four months to get a few things.

Goods are received at the warehouse through parcel post, railway express, motor freight, air freight and rail freight. A track siding runs right along beside the 65 by 100 foot warehouse.

The warehouse is a hub of operations at the refinery. It is there that use of materials must be anticipated and requisitioned. Then they are received after or-

der and issued to various units at the refinery.

The castor oil—100 gallons are used per month—is to lubricate parts having low temperatures. The special oil is not affected by freezing temperatures.

A brief list of some items in stock include cement, various sized steel rods, wiping rags, lamps, toilet tissues, electrical material of all types, paint, wire, pipe fittings, bolts of all sizes, valves for pipes, laboratory supplies, glassware, pump parts and refining parts of all descriptions.

In addition to Edwards, the warehouse clerks are A. B. Brown and C. R. Jones. Warehousemen are W. G. Simpson, J. W. Bennett and H. H. Rainey.

Congratulations!

To The
COSDEN
PETROLEUM
CORPORATION

On Their
25th
BIRTHDAY

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CONGRATULATIONS
COSDEN on
25 Years of
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Congratulations
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On Your
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Our hats are off to the greatest petroleum
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Your progress, and our progress
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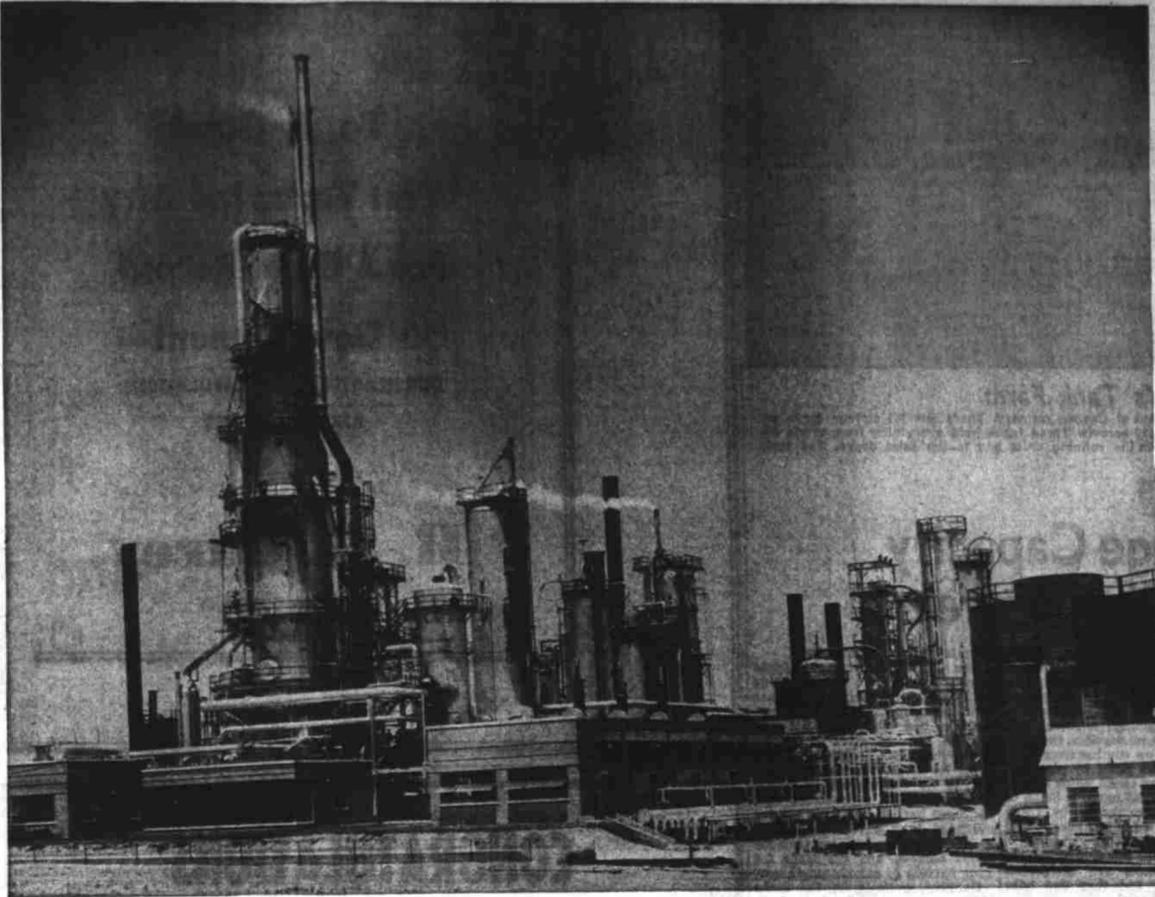
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Congratulations

COSDEN

On Your 25th. Anniversary

The progress that Cosden has enjoyed during the past quarter of a century is outstanding. Yet, accomplishments have always been a part of this company's plan. It's growth from a small refinery to one of the nation's largest was the result of careful planning and continued expansion. In making these 7-league strides, Cosden has been a vital force in the development not only of Big Spring but of all West Texas. It's leadership in the petroleum field has been responsible, in part, for the amazing growth of our section of the state.



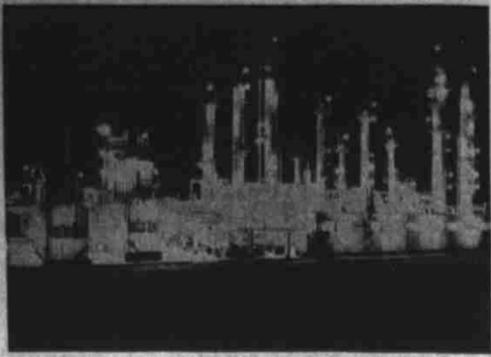
**R. L.
TOLLETT**

**PRESIDENT
of COSDEN**

OUR HATS OFF TO YOU

As Texans, and business neighbors, we are happy indeed to extend hearty congratulations and best wishes to Cosden on the occasion of its 25th anniversary. To Cosden president R. L. Tollett, we say "well done," and we know that the next 25 years will bring still more progress.





Lighted Like A Christmas Tree

Thousands of lights burn during the hours of darkness at Cosden's refinery, and it is hard to find a spot that is not light near any of the operating units. This is to assure peak working efficiency and safety for the employees. The lighting load plus electricity used by motors at the refinery places plant electrical consumption at 84,000 kilowatts per day, more than all the residences in Big Spring.

Lighted Like Yule Tree, Plant Uses Lots Of Juice

Cosden's refinery uses more electricity during a normal day than all the residences in Big Spring. The average 24-hour load at the refinery is 84,000 kilowatts. Residential consumption of electrical power, on the other hand, has been pegged unofficially at 45,000 kilowatt hours daily.

The total residential use was figured from the average home consumption, which Texas Electric Service Company lists at about five kilowatt hours daily. And there are only around 8,500 homes in the city. With all the stills and refining units lit up like Christmas trees at night, the plant's terrific use of electricity is readily in evidence. Utility Engineer Franklin (Speedy) Nugent says that the night lighting load alone is about 420 kilowatts. Thousands of lights burn during all hours of darkness.

Most of the electric power at the refinery is consumed by the 400 some odd motors, however. Nugent says they range from a fractional horsepower to 250.

The connected motor load is around 7,500 horsepower, Nugent points out. This is the equivalent of around 6,000 kilowatts. The kilowatt demand per hour when the motors are in use is only about 4,000, however.

The refinery is served by two three-phase circuits of 12,500 volt capacity. These primary lines come from the Texas Electric switching station at Big Spring. Secondary

Here's Modernistic Blacksmith Shop

There is a one man blacksmith shop at Cosden's refinery that is the scene of some "modernistic" blacksmithing.

Gas jets and furnaces are used in the shop rather than the old time coal furnaces common to blacksmith shops. And the main business in the shop is building pipe clamps and hangers rather than shoeing horses.

It is also in the blacksmith shop that the tools used at the refinery are repaired. The shop, located in Cosden's huge shops building, is equipped with sound proof fibre glass.



Cosden's Tank Farm

Pictured above is a portion of the huge tank farm at Cosden refinery. There are 151 storage tanks on refinery grounds which have a capacity of 2,319,120 barrels. These tanks hold everything from crude oil to jet fuel. Pipe lines connect the storage tanks to the refining units and to the sales docks. The tank farm covers about 320 acres.

TANKS, TANKS, TANKS Product Storage Capacity Over Two Million Barrels

Cosden's refinery has an oil and product storage capacity of 2,319,120 barrels.

Were this water, the volume would supply Big Spring almost for an average month. The total figures out nearly 100 million gallons.

A transformer bank is even located at the city disposal plant where two 100 horsepower pumps are used to pump effluent water to the refinery.

The primary electric lines at the refinery range from one-third to one-quarter inch in diameter. There are four and a half miles of such line. The two miles of secondary cable is from one-tenth to one and a half inches in diameter.

Electricity is used at the refinery primarily for lighting and to drive motors—both for pumps and air conditioning units. Some electrical facilities are found in the heating unit and in one chemical plant.

The general shops building has over 300 horsepower connected motor load, Nugent explains. This consists of welding machines, lathes, drill presses and various other tools. Some 150 horsepower drives the refinery air conditioning and refinery equipment.

A power failure would necessarily result in curtailed operations at the refinery. Nugent points out that even with the steam generating plant on the refinery grounds there is no standby steam equipment for all the electrically driven pumps.

Maintenance problems are constant, in the main being loose connections and corrosion. The policy is to carry out periodic inspections to prevent an outage. In addition to the lines, switches and motors are inspected at regular intervals.

With the lighting load and motor use, nighttime accounts for the bulk of electrical use at the refinery. Lights are placed in all areas of the plant for safety and better working efficiency for night crews.

Ten tanks at the refinery are used interchangeably, to store butane and propane. The total capacity is 7,140 barrels, and that for propane is 342 barrels. Two tanks have also been constructed for

storage of isobutane and isopentane, each of 10,000 barrels capacity.

The five tanks in the bulk plant have a capacity of 6,441 barrels. They hold gasoline, kerosene and distillates natural gasoline, the most of which is now coming from Reef Fields Gasoline plant by pipe line is stored in five tanks which have a capacity of 11,188 barrels. Some of this gasoline comes in by truck from Snyder, Odessa, Andrews and Midland. It is used to control volatility of finished motor fuel blends.

Eighteen tanks are designated for distillate, and they can hold up to 203,176 barrels.

Four tanks with capacity of 14,454 are set aside for kerosene, two tanks which can hold 20,630 barrels are used for jet fuel, and three tanks designed for 12,088

barrels contain hydrafrac oil. The BTX unit is completely separate from the other storage facilities at the refinery. It has three tanks for 588 barrels of paraxylene, two tanks for 5,108 barrels of benzene; two tanks for 10,492 barrels of toluene, four tanks for 11,494 barrels of xylene, a tank for 502 barrels of xylene bottoms, a BTX concentrate tank for 29,829 barrels, a charge splitter overhead tank of 80,000 barrels, a charge splitter bottoms tank for 33,933 barrels, and six tanks for 3,161 barrels of outside purchases.

Gauging methods on the tanks at the refinery vary. Some have line gauges that mark off levels in the tank, and others have automatic gauges. Some of the gauges are marked off in gallons, of which it takes 42 to make a barrel.

Best Wishes to

COSDEN

on its 25th anniversary

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CONGRATULATIONS

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COSDEN PETROLEUM CORPORATION

ON THEIR

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We Are Grateful For The Opportunity We Have Had To Supply Your Fine Organization. And For Our Pleasant Relationships Through The Years!



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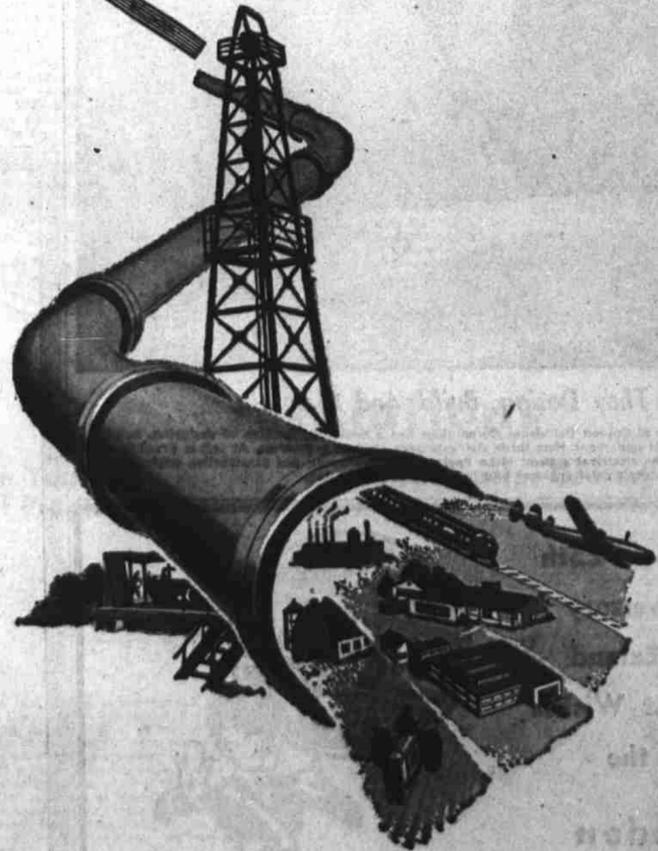
COSDEN

On
25 Years

PETROLEUM PROGRESS

Petroleum is what Big Spring and West Texas goes on and grows on. Petroleum products heat homes . . . power farms . . . fuel cars, planes, tractors, locomotives.

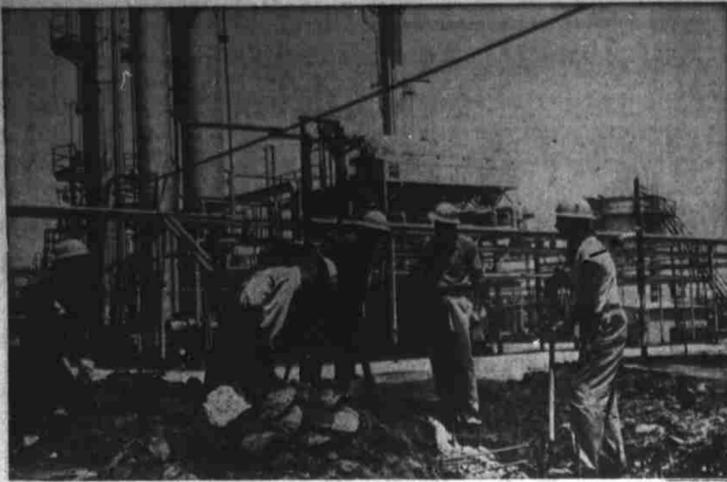
Petroleum lubricates every wheel that turns on every road, in every factory. Petroleum is the life-blood of West Texas and Big Spring industry . . . the bulwark of West Texas defense . . . the bright promise of Big Spring and West Texas future.



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Making Way For Construction

Breaking up old concrete structures to make way for erection of new processing equipment at Cosden are some of the refinery personnel. Around 500 workers are employed in the refinery operations. Jack Y. Smith, second from right, is personnel director at the plant.

Engineering Dept. Serves As 'Architect' Of Refining Plant

Design, construction and maintenance—these are the prime functions of the engineering division of Cosden Petroleum Corporation's manufacturing department.

Directing this multitudinous assignment is E. B. McCormick, chief engineer and assistant refinery superintendent. He requires the services of seven general foremen and engineers, plus twice that number of sectional foremen.

Engineering involves about everything except basic planning, operating and plant accounting. In these fields it may be closely allied.

When need for an additional unit or type of equipment is decided by management and drafted by the process engineers, the outline or flow sheet goes to the engineering department.

The situation is much like you and your architect. You give him your ideas and he designs a home within practical limits of cost and performance. Cosden engineers must take basic ideas and fit them into detailed plans and specifications.

Working with stresses and strains, pressures, corrosion resisting qualities, ability to handle high temperatures, etc. all taken into account.

Depending upon the time element and manpower required, the engineering department will construct the new facility or contract the job. Where contractors are brought in—such as on the cat cracker, BTX and alkylation plants—they are confined to a certain battery or area. Engineering personnel take it from that point.

Finally, when the job is complete, engineers must test and work out the "bugs" before the new unit goes on stream.

At this point operators take over, but when there is trouble, engineers are called back. As a practical matter, engineers work right along with operators to maintain the plant properly and thus prevent costly disruptions.

Among those required in the Cosden engineering set-up are a chief draftsman, project engineer, general maintenance foreman, utility

engineers, inspection engineers and utilities foreman.

Working under these men are others in charge of craft and equipment (boilermakers, riggers, carpenters, insulators, painters, yardmen, trucks, cranes, tractors), electrical instruments, mechanical and pump equipment, welding shops (machinists, blacksmith, pipe machines, tool room), utilities (boilers, water treaters, water systems, cooling systems, air systems).

Crysellic Acids On List Of Products

One of the first petro-chemicals produced at the Cosden refinery was crysellic acid. It is still produced here.

Crysellic acids are used as industrial detergents and in paints. The product also is used in the manufacture of TCP, the gasoline additive which is, technically, tri-cresyl phosphate.

500 Employees Keep Plant In Operation

The operation of Cosden Petroleum Corporation's refinery requires approximately 500 employees. Operating and maintenance employees alone total 385, according to records in Personnel Manager Jack Y. Smith's office. There are also 51 executives and foremen. This does not include the large number of stenographers, guards and clerks.

Largest single body of employees are those who work on the various refinery stills. Eighty-eight workers are listed for the six stills.

The crude stills have 22 employees. There are four operators, eight stillmen, four firemen, four helpers, and two utility men.

The BTX unit has 18 employees—four operators, eight stillmen, four helpers and two utility men. The newly constructed alkylation unit has 17 employees divided in the same manner as those on the BTX unit except there is only one utility man.

Seventeen are also employed for the D u b b s and polymerization units, with duties similar to those on the alkylation unit. Only 14 employees are listed for the catalytic cracking unit, with four operators, four stillmen, four helpers, and two utility men.

The pumping and treating department has 27 employees. There are four operators, eight pumpers, eight treaters, three utility men and four pumper's helpers. The tank car loading department has only six people.

The laboratory has 25 employees. Twenty-five are in machine and mechanical work, 14 are in the utilities section, 17 are in the electrical department, and 18 are yard welders.

The carpentry, masonry and painting department has a good number of employees, totaling 86. This includes painters, carpenters, insulators, finishers, pipefitters, boilermakers, riggers, crane operators, truck drivers and yardmen. There are 39 yardmen who go from place to place making repairs.

Three warehousemen are employed at the refinery. There are 40 in the marketing department, including billing clerks, truck loaders, mechanics and transport drivers. The tank car repair section has 13. The asphalt section has 22.

Refinery operations are under the direct supervision of George Grimes, Assistant superintendent for the operating department, E. W. Richardson, has foremen for all his processing units under him as well as a few other key personnel in charge of various developments.

Assistant superintendent for engineering, E. B. McCormick, heads up six engineers, maintenance and utilities foremen, and a number of shops foremen. Directly under Grimes come personnel, processing, chemistry, and clerical employees. A research and development department is headed up by W. K. Jackson.

Refinery Has Courses For Its Employees

Cosden Petroleum Corporation has sponsored several special classes for employees and constantly cooperates with educational agencies in presenting other courses of instruction.

Three special classes which have been of particular value to the employees are blue print reading, refinery stills, and foremanship.

Jack Y. Smith, personnel director of the refinery, points out that instruction is provided employees on request. A number of extension courses from Texas A&M College are supported.

Quite a few employees at Cosden are enrolled in International Correspondence School courses, and listings are kept on all such courses available. Literature is available in the personnel office.

Cosden also cooperates closely with Howard County Junior College, and a number of classes are presented there which fit the needs of the employees.

First aid classes are also common at Cosden, and one of the corporation's employees heads up the instructor staff of the Big Spring area. He is Otto Peters Sr., often referred to as the dean of first aid instructors.



They Design, Build And Maintain

Engineering division at Cosden Petroleum Corporation has a three-fold function of designing, building and maintaining plant equipment. Here three staff members go over a problem. At left is Franklin Nugent, in charge of the electrical system; Mike Phean, chief draftsman and construction engineer; and E. B. McCormick, Cosden's chief engineer and in charge of the division.

On Their 25th Anniversary We Extend Our Best Wishes to the Cosden Petroleum Corp.



Southern Ice Co.

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Happy Birthday to the **COSDEN PETROLEUM CORPORATION** on their **25th ANNIVERSARY**

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COSDEN PETROLEUM CORP.

On Its **25th ANNIVERSARY**

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It is a real privilege to associate with an industry like Cosden . . . Cosden is an asset to the national oil industry.

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TO THE

COSDEN PETROLEUM CORPORATION

ON THEIR 25th ANNIVERSARY.

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FUNERAL HOME

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They Cure Trouble Before It Occurs

One of the big jobs of maintenance at Cosden's refinery is to anticipate trouble before it occurs, and to prevent it through replacements and repairs. Cosden has an outstanding record of uninterrupted operations. Here Ott Flynt, O. W. Stone, Billy Carter and Thomas Shirley work over some valves and fittings.

Seven Equipment Divisions Call For Steady Maintenance

Major maintenance problems at Cosden Refinery are sevenfold, according to J. T. Johnson, inspection engineer. This is because there are individual problems for each of the seven major equipment divisions—pumps, storage facilities, piping, processing units, heat exchangers, electricity, and steam generating machines. All of these units must be kept in good working order at all times. Consequently constant inspection is necessary to prevent difficulties which might lead to parts of the refinery being forced to shut down. Turnarounds are scheduled if an

inspection reveals that a clean out is necessary. A turnaround, Johnson explains, is a shutdown for maintenance. Periodic turnarounds on the various units result in a great saving to the refinery. Pumps have to be cleaned out quite often if maximum working efficiency is maintained. Suction heads and discharge heads often require maintenance.

Most refinery pumps are made of alloy metals, and each is designed to perform a particular duty based on the type of liquid carried. The type of alloy necessary for a pump is determined by corrosiveness, temperature and gravity of the fluid, Johnson explains. The 150 or more storage tanks have to be maintained to assure between 20 and 25 years service. The large tanks must be painted periodically with aluminum paint on the outside and corrosive resistant paint on the inside. Floating roofs on the tanks also have to be kept in good order to assure a minimum loss of stored fluids. All tanks are built on the ground, and drains under them must be kept in working order.

Pipe, totaling hundreds of miles, also requires quite a bit of maintenance. They are painted to insure longer life and are constantly inspected for corrosion. Replacements are common, and a section in the Cosden shops is set aside for pipe construction. Processing units—with their high temperatures, acids, corrosion and erosion—cause maintenance crews many headaches. Engineers must see to it that various alloy metals are used in unit piping and that correct liners are in the various vessels.

Sulphur and salt in the crude oil cause corrosion which must be guarded against. Corrective measures must also be taken against the formation of acid, which attacks steel. High temperatures and erosion call for particularly hard linings.

Erosion is a problem characteristic of the catalytic cracker. Johnson explains that the 12 tons of fine catalyst which travels per minute through the 28-inch pipe conduit of the cracker cannot help but cause erosion.

The maintenance problem of heat exchange units is to find the construction material which is resistant to both the hot and cold fluids to be used. The exchangers interchange heat between various streams to conserve energy required for refining. They consist of tubes and surrounding shells.

Hot products are charged through the tubes while cold products are in the shells. This has the effect of

GROWTH

(Continued From Page 1)

put in operation in 1949, the straight-chain molecules of low-octane-number gasoline are "reformed," or rearranged, into the more efficient branch-chain molecules.

Various catalysts are used in the operation, the best being platinum which Cosden uses. The use of platinum as the catalytic agent accounts for the term "platforming" used to describe this particular reforming process.

Thermal re-forming is possible, as well as the catalytic process, but a much better yield is received with the catalyst.

One of the reactions in the reforming of molecules catalytically is the dehydrogenation of the straight-run gasoline that goes into the platforming unit. Straight-run gasoline from crudes in this section is of high naphthene content.

An isomer, or one structural variety, of naphthene is cyclohexane which breaks down into benzene and hydrogen in the process.

Cosden has kept pace with other developments in the refining industry through the years. In addition to the basic processes, the Big Spring refinery was equipped with a Unisol mercaptan extraction unit in 1946. This extracts the mercaptans—foul-smelling particles—from the gasoline. The mercaptans have been sold as natural gas odorants and as chemical raw materials.

The refinery's BTX (benzene-toluene-xylene) plant to produce the three petrochemicals went "on stream" in September of 1952 and since that time benzene, toluene, xylene and paraxylene have been channeled into industries turning out synthetic fabrics and a host of other items.

In the early 1940's Cosden installed a catalytic desulfurization unit to remove the acid-forming sulfur compounds from straight-run gasoline. In 1946 an electrostatic desalting unit was put in crude oils before they enter the heating systems, eliminating corrosion, plugging and other operational difficulties.

In 1952, the refinery started putting its straight-run gasoline through a feed preparation unit for the production of aromatics in the platformer and BTX processes.

Other equipment has been kept modernized. The crude unit at Cosden was completely revamped in 1945-46. A vacuum still was put in operation in 1949 and the refinery now turns out some 45 grades of asphalt which would not be available with distillation at atmospheric pressure.

A new crude distillation unit went on stream in July of 1951, and the poly plant was brought up to date following construction of the catalytic cracking unit.

Developments in the refining of petroleum have been almost revolutionary, particularly in the last quarter of a century with the reconstruction of hydrocarbon molecules having superseded the process of simple distillation.

And you can practically trace the developments which have occurred throughout the industry by comparison with improvements at the Cosden refinery in its first 25 years.

decreasing the temperature of the hot products and increasing the temperature of the cold. The tubes are especially delicate in this type of operation and must be made of alloy resistant to whatever is being used.

Electricity maintenance problems are mainly loose connections and corrosion. Switches and motors must be checked periodically, and definite schedules are followed.

Steam generating equipment must be inspected for leaks. These leaks, if not repaired immediately, can run into a lot of money. Steam is the prime mover at the refinery and the plant boilers have a generating capacity of 300,000 pounds per hour.

Johnson says that the ammonia content of the boiler feed water and steam eliminates the use of brass fittings normally employed on steam lines and turbines.



DEEP IN THE HEARTS OF TEXANS . . .

. . . and ours in Oklahoma, too, is a real sense of pride in the accomplishments of Cosden Petroleum Corporation during the first 25 years it has been a part of the petroleum industry. Its record of growth is truly amazing. We are proud to be a part of this progress. We offer our hearty congratulations to Mr. R. L. Tollett and his entire organization as they celebrate this silver anniversary.

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Congratulations

On Your 25th Anniversary . . . A Quarter Century Of Progress In The Oil Industry . . .

The aggressive and intelligent leadership of men such as Mr. R. L. Tollett, President, has exemplified the progressive program of the Cosden Petroleum Corporation to meet the demands of the nation and the motoring public over the past 25 years of war and peace. We are sure that Cosden will always stand ready to meet the demands of the future under continued wise planning and development.

Our best wishes to the Asphalt Division of the Cosden Petroleum Corporation, under the supervision of Mr. R. O. Wilson. Through their extensive research and development activities we have been able to furnish quality asphalt and road oils to the State of New Mexico for use in its program of building a new and improved highway system in your neighboring state of New Mexico. To all the members of this division we extend our thanks.

Spencer and Co.
Santa Fe, New Mexico

We're Happy To Say "HAPPY BIRTHDAY"

To All Our Good Friends At

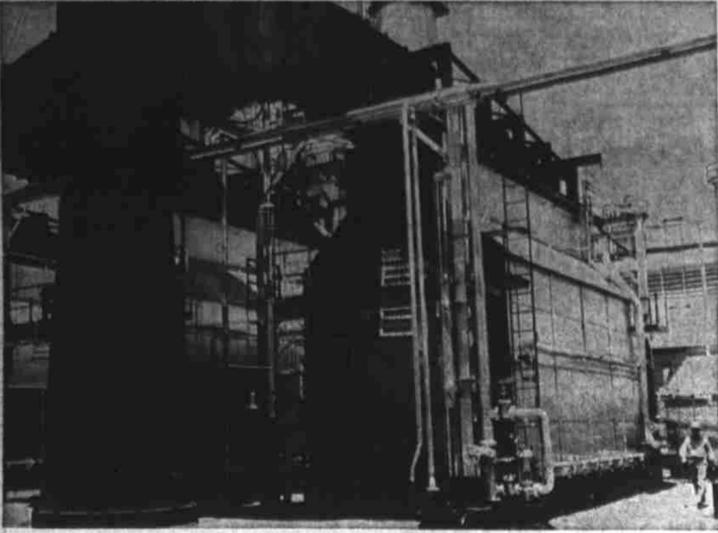
Cosden Petroleum Corp.

We appreciate the long and valued business relationships we have enjoyed with this fine industry which has contributed so much to the development of all West Texas.



Ajax Transport Co.

ARLINGTON, TEXAS



Hotter'n Blazes

This is one of the battery of furnaces which generate vast quantities of heat required to produce more than 300,000 pounds of steam per hour. Fed by gas and with forced drafts, some of these units cook up to 995 degrees temperature. Steam and material pipes inside keep the precious fluids and gas circulating.

Heating Plays Vital Role In Oil Processing

Heat, and lots of it, goes into the processing of 24,000 barrels of crude oil daily at the Cosden refinery.

Heat plays a major role in virtually every operation at the petroleum and chemical plant.

Furnaces, heat exchangers, reboilers, and tons of steam supply the energy for all of the distillation, some of the cracking, and many other processes at the refinery.

Each unit has its own heating system, or heater, which is fired by either natural gas or oil. Steam heat is used to raise the temperature of some of the raw materials being processed or treated at the refinery. The vast plant has the capacity to generate over 300,000 pounds of steam per hour.

Probably the hottest spot in the refinery is in the neighborhood of the big thermal cracking unit, which heats stocks up to 1,000 degrees Fahrenheit as the oil is broken down into its various components.

Pressure is allied with high temperature in this process as both bear down on the oil products to crack them into lighter molecules in the gasoline boiling range.

Most of the heating equipment is fired with natural gas, purchased from Empire Southern Gas Company in Big Spring, and with waste gases from the refinery.

Heat exchangers serve to transfer heat from hot to cold materials in some of the processes. An example of this is the hot oil which is circulated in pipes through the reboilers of the various distillation units. Heat from the pipes is transmitted to the gases being processed for the production of high-octane gasolines.

And where you find so much heat, you might expect to find coolers.

Cosden is no exception to the rule. Giant coolers and condensers dot the refinery almost as densely as heating equipment.

Gases which are taken off the various stills must be condensed into the liquid form. This is done by cooling.

The cooling element—either air or water—is circulated through or around the pipes and equipment containing the hot vapors, bringing their temperatures down to the point of condensation.

The new Phillips Petroleum Company plant at Cosden, which Cosden maintains and operates, is a new wrinkle in the use of coolants in the refining process. The Phillips plant separates paraxylene from the other xylene isomers by the fractional crystallization technique, which takes into account the difference in freezing points of the various xylenes. Tons of refrigeration are required. Previously, only the fractional distillation process, based on the difference in boiling points, was used. Thus, science and engineering have utilized a lowering of temperatures to accomplish what formerly was achieved by increasing temperatures.

Yield Department Checks The Daily Inventory To Last Drop

A day-to-day "picture" of what's going on at the big Cosden refinery is reflected in records of the company's Yield Department.

The three yield clerks at the refinery work with "barrels" just like other accountants work with "dollars."

Their records show the amount of crude oil and refinery products on hand at any given time, as well as the volume of crude received, the quantity of "finished" products disbursed, and the transfers of the various items from one storage area to another, or from the receiving tanks into the stills, etc.

Reports are made daily and on a monthly basis. Too, the yield clerks must prepare a general, or "over-all" report, and keep track of yield per processing unit.

All of the reports must balance, just like dollar accounts.

Yield clerks receive what they call a "morning inventory" each day, showing how much crude and what quantities of the other products are on hand. The morning inventory is compared with that of the day before, and the difference must be accounted for in sales

reports for that day, in conjunction with quantity of products used in operation of the refinery and the amount received on trucks through "outside purchases."

The clerks also must keep track of the "charges" made at the various processing units and of the output of products by the individual units.

Work of the yield department must be so accurate that volumetric variations caused by temperature changes are adjusted. On every inventory—measurements are corrected to a temperature of 60 degrees.

Deviation between the "charge" of the combined units and the calculated yield of products is accounted for as production loss. This would include waste gases, which actually are used as fuel in the refinery operations.

The loss, which varies, averages about 1.5 per cent, as shown by the yield reports. However, taking into consideration the volume of waste gases actually utilized, the refinery losses are negligible. Actually, about the only thing

really lost is the hydrogen sulfide gas which escapes as a "rotten egg" odor. Eventually, Cosden probably will refine even the hydrogen sulfide to recover the sulfur it contains.

Records of the yield department at Cosden show that an aggregate of 7,808,533 barrels of crude was processed at the refinery during the past fiscal year.

Output, or yield, from processing included 309,689 barrels of aromatics from the BTX plant; 501,877 barrels of jet engine fuel; 134,463 barrels of kerosene; 823,856 barrels of distillates; 1,210,559 barrels of asphalt; 263,691 barrels of liquefied petroleum gases (butane-propane) 551,288 barrels of burner oil; and 3,417,374 barrels of gasoline. In addition, the refinery produced other petrochemicals, including paraxylene, Cresylic acid, mercaptans, hydrogen, and polybutane.

Yield clerks who keep daily and monthly records of this production, as well as the crude input, are J. T. Baird, John M. Hill and Leonard Fellers.

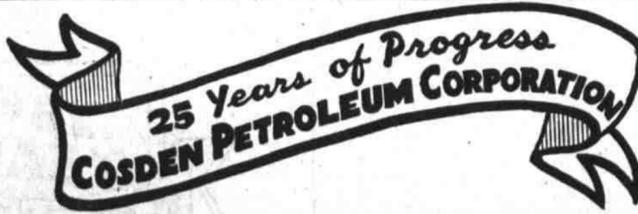
Congratulations Cosden ...

Our best wishes for 25 more years of such successful operation . . . don't forget to call on us if we can help . . .

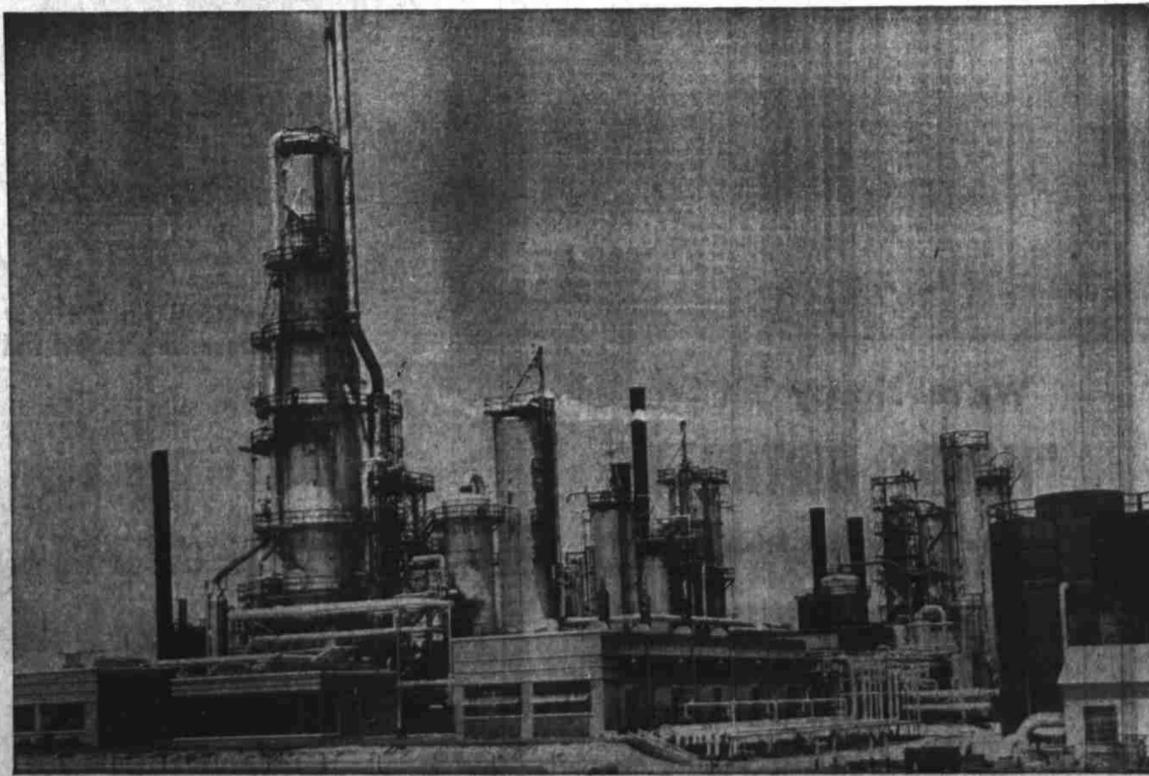
TULSA ● DALLAS
ODESSA ● AMARILLO



Our Congratulations . . .



And Best Wishes



Wickett Refining Company

Wickett, Texas

E. L. Kent, President