

# OIL PRODUCTION IN STATE REVIEWED

Booklet Prepared by Dr. Ralph Arnold and William J. Kemnitzner.

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A comprehensive and detailed review of oil and gas production in Arkansas and a history of the industry in the state is contained in "Petroleum in the United States and Possessions," written by Dr. Ralph Arnold, California Institute of Technology, and William J. Kemnitzner, director of research for the J. Edward Jones organization of New York, and published by Harper & Bros. Petroleum possibilities first attracted attention in the state in the early 1870's, the book says, when a water well drilled near Fayetteville produced a small amount of natural gas. The Pine Bluff Oil Company, formed in 1876, was the first to be incorporated in the state. Not until 1902, however, was any appreciable effort made to develop the industry. Following the drilling of two productive wells near Mansfield and the opening of the Mazarand Prairie field, near Fort Smith, in 1904, development followed rapidly in the natural gas field. Oil production did not follow until much later when a small amount of oil was produced in a well drilled in southwestern Ouachita county in 1920. Growth of the industry was rapid thereafter, however, and the state became the only important field in the eastern edge of the Mid-Continent field.

Following the opening of the El Dorado field, the state rose rapidly to fourth place in national oil production in 1925, and then declined to a production of only 2.5 per cent of the national output in 1929, the last year covered in the survey. Less than one per cent of the 53,335 square miles of the state is classified as impossible of oil or gas production, although 70.3 per cent is classified as unfavorable. Prospective area is listed at 29.5 per cent and proved area at 0.2 per cent. The classification has been based on geologic formations and results obtained from actual drilling. Drilling has been limited to proved area principally, however, as only 7.3 per cent of the total of 7,547 wells has been wildcat drilling. ("Wildcat" is used in the strict sense of the term to indicate prospecting drilling.)

Crude oil, natural gas and natural-gas gasoline are all produced in the state, but 82 per cent of the entire output has come from one area, the Smackover field, according to the authors. The specific gravity of the oils in the state ranges from 13 degrees, American Petroleum Institute rating, to 43 degrees, but the major part of the production averages about 22 degrees. Aside from salt water, there are few impurities in the crude petroleum but the gasoline content is relatively low in the characteristically naphthenic base oil.

Total production up to January 1, 1929, according to the authors, was 313,853,000 barrels of crude oil; of natural gas, 250,987,000 M cubic feet, and of natural-gas gasoline, 158,251,000 gallons. The average cost of drilling a well is placed at \$16,362 and the average return at \$41,135. Several deep test wells have cost more than \$150,000 to drill, and one of them is one of the deepest in the nation. It is the Blackwell Oil and Gas Company's Wyver No. 1 in section 21, township 8 south, range 23 west, in Johnson county, and was at 5,600 feet on May 1, 1930. Rotary drilling is employed principally in the oil fields and cable rigs in the gas districts.

# DATA PREPARED ON NATURAL GAS

18,585,000,000 Cubic Feet Produced in Arkansas Last Year.

10-13-31

In 1930, 18,585,000,000 cubic feet of natural gas were produced in Arkansas, while 38,231,000,000 cubic feet were consumed, a large part of the gas having been piped from Louisiana, statistics compiled by the United States Department of Commerce, Washington, show.

There were 66,000 domestic consumers, who used 8,338,000,000 cubic feet. Other users were classified, as follows: Field operations, for drilling, pumping, etc., 13,455,000,000 cubic feet; petroleum refineries, 3,639,000,000 cubic feet; electric public utility power plants, 1,544,000,000 cubic feet; other industries, including Portland cement plants, 11,255,000,000 feet.

The estimated average value of the gas at the wells was 5.5 cents per 1,000 cubic feet and at points of consumption 19 cents per 1,000 cubic feet to the producer. To the consumer the average value at the point of consumption was 48.3 cents per 1,000 cubic feet. The total paid by the consumers was estimated at \$1,207,000. These consumers included domestic users and the field operations.

Estimated value of the gas used at petroleum refineries, electric public utility plants and cement plants was \$2,046,000. This would make a total of \$3,253,000 paid by Arkansas users of natural gas last year.

## Natural Gas Made Available to Homes in Chicago.

(Chicago Tribune-Arkansas Gazette Special.) Chicago, Ill., Oct. 16.—Scorched eggs and burned toast will be the lot of husbands tomorrow morning if their wives are neglectful of their cooking and read the morning paper or listen to the radio instead of keeping a watchful eye on the gas stove. Flames from thousands of burners in Chicago will be twice as hot as they were today due to inauguration of service with a mixture of natural and artificial gas.

Two advantages accompany the new gas. With a heat content of 800 British thermal units as compared to 550 B. T. U. content in the old gas, the mixture will permit more rapid cooking. Gas bills will show a saving to home owners at the end of the month with a cut of 6 1-2 per cent in domestic usage and 31 per cent in gas used for heating purposes.

The new mixture was turned into the mains of the Peoples Gas Light and Coke Company tonight and supplies 97 per cent of the users in Chicago. The chief characteristic of the new gas, as seen by the consumer, is a brighter blue color and a more intense heat.

The gas is piped 950 miles into the Chicago area from the Panhandle fields of Texas. The line has an initial delivery capacity of 175,000,000 cubic feet daily. The compressor stations will be used to pump the gas, with a capacity of 70,000 horsepower required for the purpose. The line, under present plans, is to be duplicated as soon as the large industrial area surrounding Chicago requires more of the fuel.

## Governor Invited to Washington For Oil Conference.

Governor Futrell yesterday received an invitation from Harold Ickes, secretary of the interior, to attend a conference of governors from states producing large quantities of oil to be held in Washington Monday to discuss methods of controlling and conserving production. Governor Futrell said he could not attend, but that he might designate some one who will be in Washington at that time on other business to represent the state at the conference. Governors of California, Texas, Oklahoma, Louisiana and Arkansas were among those invited to attend or send representatives.

## TO ATTEND CONFERENCE.

S. A. Crumpler, representative of Columbia county, was appointed by Governor Futrell yesterday to assist John W. Olvey of El Dorado at the governors' conference in Washington, D. C., March 27, called by Secretary of Interior Harold Ickes, for a discussion of stabilizing the oil industry.

## Appoints Commission.

The governor also appointed the new Conservation Commission provided for in Senate Bill 329, by Marlin, which was signed yesterday and became Act No. 234. The honorary board of five members will supervise the conservation and inspection of the oil fields and gasoline, respectively.

The board includes M. E. Wilson, J. S. Brooks and O. G. Murphy, all of El Dorado; Dave Reynolds, Camden, and Lon Abney, Smackover.

The conservation agents appointed are C. N. Benton, and his two assistants, C. E. Harris and A. H. Stolz.

# OBJECTS TO REPORT ON OIL CONFERENCE

Arkansas Delegate Says That There Was No Full Agreement on Proposals.

Mar 21, 1931

Washington, March 30.—(P)—John W. Olvey of El Dorado, Ark., representative of the Arkansas governor at the Governors' Oil Conference, today took exception to published reports that the conference unanimously had agreed to a program.

In a formal statement, Olvey said, in part:

"On behalf of the state of Arkansas, I desire to submit a correct statement as to what transpired. . . .

"While the entire committee was unanimous in their wish and desire to co-operate with the president of the United States and with his representative, the secretary of the interior, yet there were certain reservations and exceptions made to the report as submitted.

"These reservations and exceptions were from New Mexico, Texas and Arkansas. All these states objected to the first recommendation in regard to a shutdown of the 'ush fields, not only on account of the probable lack of

power of their respective governors, and after talking with the representatives of the states that filed these objections, at least the majority of them had in mind that their objections were registered."

Olvey said also that other objections were raised against the plan of unitization and the stopping of drilling.

Secretary Ickes yesterday told newspapermen that the report had been "adopted unanimously." Gov. Alf M. Langdon of Kansas, chairman of the conference, also used the same words.

The conference's final recommendations as made to Secretary Ickes for presentation to President Roosevelt introduces the representatives' findings beginning with the words: "The committees unanimously recommend."

There was no dissent expressed at the time of the program's adoption by the full conference.

## Oil Meet Recommendations Not Unanimous, Says Olvey.

Special to the Gazette, 4-3-31

El Dorado, April 1.—John W. Olvey, El Dorado oil man who represented Governor Futrell at the recent oil conference in Washington this afternoon issued the following statement:

"Newspapers recently published an article in regard to the recommendations as made by the governors' committee to the secretary of the interior for transmittal to the president of the United States which is in error, in that such reports state that the recommendations as made were unanimously adopted by the governors' conference.

"When the committee of five selected from the governors' conference reported the plans and suggestions to the entire conference sitting with the secretary of the interior, before the vote was taken on such recommendations, discussion was had of the different items therein. While the entire committee was unanimous in the wish and desire to co-operate with the president and with his representative, the secretary of the interior, yet there were certain reservations and exceptions made to the report as submitted. These reservations and exceptions were from the states of New Mexico, Texas and Arkansas.

"All these states objected to the first recommendation in regard to a shutdown of the flush fields, not only on account of the probable lack of power of their governors, and after talking with the representatives of the states that filed these objections, at least the majority of them had in mind that their objections were registered for the further reason that there was no provision made for the restriction of imports for the same period of time, and further objections to the shutdown for the reason that it would operate a gross injustice to the independent refiners who had no storage on hand to carry on their operations during this period and to the independent producers who did not have funds to pay their labor when they were receiving no return from production, and that in its administration it could operate only for the benefit of the major integrated companies which had their storage and which controlled the imports to the detriment of the independent.

"The other objections that were raised were against the plan of unitization, the stopping of drilling, both of which, of course, would have a direct effect upon unemployment and labor. Also direct objection was made to such features as embodied in the report that would in anywise set aside

or annul the anti-trust laws or would allow an abridgement of the anti-trust laws in any particular. The doctrines of the rights of the individual states was expressly reserved and objections made to any part of the recommendation that would in anywise act as giving to the federal government any power or control that has been inherently vested in the states."

**Seek Loan for Publication.**—Application for a loan of \$3,275 for publication of a survey, Oil and Gas Geology of the Gulf Coastal Plains of Arkansas, was filed with the state Advisory Board of the Public Works Administration at the Federal building yesterday by representatives of the Arkansas Industrial and Relief State Agency, Hayley M. Bennett, secretary of the state Advisory Board, announced.

**Woman Injured in Collision.**—Mrs. Mabel Coleman, 2605 West Sixth street,

**High Water Interrupts Field Work**  
3-3-34  
**El Dorado Interested in Several Good Prospective Producers.**

El Dorado, March 3.—(Special.)—High water, caused by the overflowing of streams, as the result of heavy rains which flooded a number of wells in the Smackover field, also delayed activity on at least one wildcat in the El Dorado oil district during the past week.

Activities were halted on the Vines No. 1 well of Colonel Henderson and associates, in section 29-18-14, at Hibank. The well is now slightly below 2,400 feet and operations have been shut down because of high water. This well looked as a small producer at the Nacatosh level and is being watched closely.

In the Urbana field the Marine Oil Company is preparing to erect a standard rig to place on the pump the Thompson E-2 in the northwest corner of the ne4 of the ne4 of section 10-18-14, completed 10 days ago.

The well flowed by heads for a time at the rate of 50 barrels a day and is expected to be good for more production as a pumper. No announcement was made by the Marine Company as to new locations, but it is believed that the company will continue with its drilling program in the Urbana area.

The crew on the Gaddy No. 1 of Dan Brooks, in the nw4 of section 14-17-14, Rainbow City field, is still engaged in drilling the well deeper. Drilling is now in progress around 3,400 feet.

George Harper, manager of the El Dorado baseball club, is reported to have set casing in his Bodcaw-Reed No. 1 wildcat, in section 16-15-22, Lafayette county, after a good sand had been encountered at 1,200 feet. Considerable interest is being shown in this wildcat.

Curing of titles is delaying further work on the Davis well of Mrs. R. K. Jones, in the nw4 of section 29-10-14. Surface casing has been set in the well. The owners are hopeful of completing the present title work soon. The well is directly between the Smackover and Rainbow fields, in close proximity to both and on what is believed to be a well defined oil and gas structure.

W. R. March and associates are drilling below 2,400 feet on the R. J. Williams No. 1, in the center of the nw4 of the se4 of section 8-18-4, Ashley county. This well is being watched with considerable interest as the structure on which it is located has been recognized for some time. The geology on the block was worked by W. M. Grimm of Shreveport.

The block was assembled by H. F. Pracey of Bastrop, La. The Orbis Oil Corporation of Fort Worth, Tex., has the drilling contract.

**Best Well of Week Listed In Arkansas**  
3-3-34  
**Is Miller County Producer—Bad Weather Slows Activity.**

Shreveport, La., March 3.—(Special.)—Bad weather somewhat slowed activity in north Louisiana and Arkansas oil fields last week. However, north Louisiana had five completions, four of them being commercial wells. In Arkansas, the Miller county field, most active district in that state, added a 500-barrel pumper, the largest well so far in that field.

The most important well completed in north Louisiana was Haynesville

Partnership's No. 1 Anna Taylor, section 11-23n-Sw completed at 4,596 feet, in 12 feet of sand, in the upper Trinity, pumping 50 barrels of 39.1 gravity oil. It is the first upper Trinity well completed in several years in the old Haynesville field that has produced since 1921 from the Blossom (Ozan) and the second upper Trinity producer there.

Possibility of another gas producing stratum in the Monroe gas field was seen in completion of United Carbon Company's No. 1 Montgomery, section 8-21n-5e, at 2,300 feet, about 300 feet below the regular producing horizon. This well in Morehouse parish is in the east edge of production.

One new Wolf City sand producer was added at Converse making the sixth producer in this sand at 2,000 feet, that immediately underlies the Annona chalk. However, several wells that have gone to the Wolf City sand have failed to find production and are plugging back to the Annona chalk horizon to use acid.

Standard Oil Company of Louisiana has started a repressuring project in the old Homer field of Claiborne parish, already having started placing 38,000 cubic feet of gas daily in the first "key" well for the repressuring project. This is No. 36 P. Lowenberg, section 24-21n-Sw, recently drilled to 1,355 feet, for a Key repressuring project. The gas is being put into the well under pressure.

Arkansas activity continued at a comparatively low level. In Ashley county, K. R. March et al. of Fort Worth, Tex., are drilling below 2,500 feet in No. 1 Williams, a wildcat on a 30,000 acre block that has contract depth of 3,500 feet. Bit was in Midway at 2,500 feet. Arkansas Natural Gas Corporation, Magnolia Petroleum Company, and others have protection acreage. The block was assembled after the geologic work was done by M. W. Grimm, consulting geologist of Shreveport.

Plans are under way by Harvey et al. to clean out the old producing shallow wells in the Bradley field of Lafayette county, Ark., that once had a combined daily yield of about 100 barrels, and possibly drill other new tests.

Completions last week in north Louisiana follow:

Bossier Parish—Gulf Ref. Co., No. 1 Ford, section 8-22n-13w, dry, abandoned at 3,750 feet.

Claiborne Parish (Haynesville)—Haynesville Partnership, No. 1 Anna Taylor, SE SW section 11-23n-Sw, pumping 50 barrels daily from 12 feet of sand, at 4,596 feet in Trinity.

Morehouse Parish (Monroe)—United Carbon Co., No. 1 Montgomery, nw se section 8-21n-5e, seven million cubic feet of gas at 2,500 feet.

Sabine Parish (Converse)—Miles & Strickland, No. 1 W. R. Ross & Son, sw nw section 10-9n-13w, pumping 25 barrels oil from 2,007 feet in Wolf City sand.

Union Parish (Monroe)—Southern Carbon Co., No. 64 Fee, sw ne section 8-20n-14e, gauged 14,500,000 cubic feet

of gas at 2,118 feet, with 1,190 pounds rock pressure.

Completions last week in Arkansas follow:

Miller County—Arkansas Oil Corp., No. 1 Smith, se nw section 33-15-26w, pumping 500 barrels of oil at 2,926 feet.

## Production Record.

Daily average oil production in north Louisiana again exceeded the allowable of 24,300 barrels set by the state conservation commission, under the federal government's allowable for the whole state of Louisiana of 69,300 barrels. The average last week in north Louisiana was 27,490 barrels. The federal allowable for March, however, for Louisiana has been boosted 2,500 barrels to 71,800 barrels.

Arkansas' average last week was 30,060 barrels, well within its federal allowable of 33,000 barrels.

Daily average production last week in Arkansas by districts follows: Rainbow City-El Dorado, 5,890 barrels, down 60 barrels; Smackover, light, 2,330 barrels, down 20 barrels; Smackover, heavy, 19,730 barrels, down 80 barrels; Lisbon, 350 barrels, down 10 barrels; Nevada county, 400 barrels, down 20 barrels; Stephens, 610 barrels, down 10 barrels, and Miller county, 750 barrels, down 210 barrels.

**Two Oil Wells, Three Gassers, For Louisiana**  
Dec 19, Aug 19, 1934.  
**Drouth Affects Activity—Two Arkansas Holes Abandoned.**

Shreveport, La., Aug. 18.—(Special.)—Seven wells were completed last week in north Louisiana and two in Arkansas, as the mid-summer doldrums continued to hold operations down. Lack of water for drilling operations continues to be a major problem in many sections.

Of the north Louisiana completions, two were oil wells, both being in the Converse shallow chalk rock field in Sabine parish, and both being completed after use of chemicals, and three were small gassers. There were two failures. Both of Arkansas' completions were also failures, one being in the Urbana district, Union county, and the other a wildcat in Lafayette county.

Wildcatting interest centered last week in north Louisiana in attempts to make a drill stem in E. T. Oakes' No. 1 Johnson, section 30-13-15w, DeSoto parish, in colitic lime of the lower Cretaceous, at 5,402 feet. In the first attempt the tester failed to hold and the well was cleaned out for another attempt. No water appeared. This test has shown much gas and some oil at this level. The well has been in course of drilling since May, 1931, and has been carefully drilled by Oakes, who is the famous "Rebel" Oakes, former major league baseball player of a couple of decades ago. H. D. Easton, discovering geologist of the Zwolle and Converse fields, made the local for Oakes' test.

The Rodessa gas field in Caddo parish, La., was extended a quarter of a mile west into Cass county, Tex., with completion of a 55,000,000-foot gasser in colitic lime of the Glen Rose, at 5,875 feet, the deepest of the 15 gassers in the field, which was discovered in 1928. The new well, which had rock pressure of 2,250 pounds, is Cass county's first commercial well.

Completions last week in north Louisiana follow:

Caddo Parish (Blanchard)—W. T. Boyd, No. 1 T. C. Lindsay, section 34-19-16w, one and one-half million cubic feet of gas at 940 feet; Producers-Pyramid Oil & Gas Co., No. 3 W. P. Hammock, section 3-18n-16w, dry, abandoned at 940 feet.

Morehouse Parish (Monroe)—Greene Bend Gas Co., No. 1 Patton, section 11-20n-4e, 17,250,000 cubic feet of gas at 2,155 feet.

Ouachita Parish (Monroe)—United Carbon Co., No. 3 Cole, section 25-20n-4e, 1,300,000 cubic feet gas at 2,179 feet.

Sabine Parish (Converse)—Helena Oil & Gas Co., No. 1 S. Beard, section 16-9n-13w, flowing 200 barrels oil daily at 2,036 feet after using acid; Windsor Oil Co., No. 1 Bank of Pleasant Hill, section 29-9n-13w, flowing 100 barrels oil daily at 1,647 feet, after using acid.

Sabine Parish (Zwolle)—George L. Pace, No. 2 A. C. Phillips, section 25-8n-12w, dry, abandoned at 2,646 feet.

Completions last week in Arkansas follow:

Lafayette County—Earl F. Fox, No. 1 Coleman Brothers, section 36-15-25, dry, abandoned at 3,005 feet.

Union County (Urbana)—McCreslenn Oil Co., No. B-1 A. H. Hadley, section 3-18-13, salt water, abandoned at 3,557 feet.

New operations launched last week for Arkansas follow:

Lafayette County—C. V. Lenz, No. 1, Houston, section 19-15-25.

Union County—Sam M. Richardson, No. 2 Hammond, section 19-17-15.

Daily average oil production in both north Louisiana and Arkansas declined during the last week. North Louisiana dropped 450 barrels to 23,320 barrels.

Arkansas dropped 255 barrels to 30,305 barrels. Daily average production for the last week in Arkansas districts follows: Rainbow City-El Dorado, 6,025 barrels, up 235 barrels; Smackover, light, 2,300 barrels, down 50 barrels; Smackover, heavy, 19,390 barrels, down 170 barrels; Lisbon, 330 barrels, unchanged; Nevada county, 460 barrels, unchanged; Stephens, 600 barrels, up 30 barrels; Miller county, 1,200 barrels.

## New Locations In Arkansas Number Five Three in Miller County, but Week as a Whole Is Dull One.

Shreveport, La., Oct. 27.—(Special.)—North Louisiana and Arkansas' oil territory had a quiet week, north Louisiana reporting only four completions, of which only one, a small shallow gasser, was a commercial well. Arkansas failed to enter the completions column.

North Louisiana, however, had six new operations launched, and Arkansas had five, three of the latter being for the Garland City field, Miller county. The western limits of the Nacatosh producing gas horizon in the Blanchard field, Caddo parish, at 5,402 feet, apparently was defined by the completion of the last week's completion a mile west of production, in the same parish, six miles south of the gas field, in the same parish, produces a saturated gas from the surface at 5,500-5,800 feet. Bailly drill a test in section 11-18n-16w in the Hartzo land. Results of 17 producing gassers in the limits of the field have not been defined, but the two containing all present production in the area, Arkansas-Louisiana Pipe Line Company (Cities Service) and the Gas Public Service Company in the production needed there to meet demands.

Garland City, Miller county, Arkansas, had the following new tests: Duluth-Arkansas Oil Company, No. 4 Beck, Section 34-15-26; Lenz et al.'s No. 5 Dale, section 24-15-236, and A. C. Walker et al.'s No. 1 B. F. Smith, section 29-15-26.

In Lafayette county, Ark., A. H. and A. F. Tarver of Shreveport have taken the 5,000-acre block on which Earl Fox of Shreveport has drilled two former tests, and will drill two miles south of the latest of the two previous wells, and it is believed south of a fault in that area. The new test is No. 1 Russell, section 12-17-25. Morris et al. plan a test in Hot Spring county.

In Columbia county, Ark., Dudley & Woodward have resumed drilling in No. 1 Pearce, section 7-17-20, and it is planned to take it to 3,400 feet.

In Lafayette county, Ark., E. O. Olds reports his No. 2 Bodcaw, section 19-16-23, is drilling below 3,543 feet. The test is a quarter of a mile from a junked hole at 3,800 feet.

Completions last week in north Louisiana follow:

Caddo parish (Blanchard)—Louanna Oil & Gas Co., No. 4 W. M. Hammock, section 6-18n-16w, dry, abandoned at 997 feet; M. Segal et al., No. 1 P. A. Sharpe, section 11-18n-16w, one million cubic feet of gas at 928 feet.

Sabine parish (Zwolle)—Pelican Natural Gas Co., No. 14, Sabine Lumber Company, section 11-7n-12w, dry, abandoned with oil show at 2,642 feet.

Daily average oil production last week in north Louisiana rose 475 barrels to 23,900 barrels. Arkansas dropped 310 barrels to 30,450 barrels.

Daily average production for the last week by districts in Arkansas follows: Rainbow City-El Dorado, 5,880 barrels, down 100 barrels; Smackover, light, 2,300 barrels, down 20 barrels; Smackover, heavy, 19,980 barrels, down to a new low record, a drop of 170 barrels; Lisbon, 340 barrels, down 10 barrels; Nevada county, 830 barrels, down 20 barrels; Stephens, 590 barrels, down 10 barrels, and Miller county, 1,500 barrels, down 10 barrels.

## Oil Interest Is Centered In Arkansas Taylor Gusher a Sensation—Louisiana Gets Five Producers.

Shreveport, La., Nov. 10.—(Special.)—The Rainbow City field of Union county, Arkansas, held the spotlight of oil activity in north Louisiana and Arkansas last week with the discovery of a new oil bearing sand in the upper red bed series of the lower Cretaceous at 3,360 feet, about 150 feet below the present producing sand the Gregory of that field.

The discovery of the new sand occurred in Short and Hayes' No. 1 Taylor, section 10-17-14, which logged six feet of sand at 3,360-66 feet and three minutes after a formation test was opened shot oil into the derrick, continuing the steady stream for six minutes, being estimated at 5,000 barrels daily or better. Six and five-eighths inch casing was set at 3,326 feet with quick-set cement.

A crowd of oil men swept back into south Arkansas on the wave of enthusiasm aroused by the test and plans are already under way to deepen a number of the present wells to the 3,200-foot level in Rainbow City (Champagnolle). However, it is believed the new sand may be extremely lenticular.

North Louisiana last week had 10 completions, of which two were oil wells. Three interesting wildcat tests were among the abandonments, one being a 5,000-foot wildcat drilled in Bienville parish on the east side of the Sabine uplift. The test was on a geophysical location on a 15,000-acre block owned by Benedum and Trees.

Two miles west of the old Homer field in Claiborne parish, H. L. Martin and F. C. Norman of Homer have assembled a 7,000-acre block for J. C. King of Minden, La., for a 2,300-foot test to explore producing possibilities of the Nacatosh and Blossom (Ozan), both of which horizons are productive in the Homer field. The block, which is between Homer and the Cotton Valley field in Webster parish, centers in section 16-21n-8w.

Last week Bellevue Oil Corporation bought from Continental Securities Corporation, oil and gas well equipment on 75 wells in the shallow Bellevue field, Bossier parish, some of which are on abandoned test, for \$3,500.

Arkansas-Louisiana Pipe Line Company (Cities Service) has acquired a 160-acre lease in section 7-17n-11w, Bossier parish, from Producers Oil and Gas Company, the consideration to drill a 3,500-foot test. Producers is now testing a well at 3,900 feet in the tract.

Completions last week in North Louisiana follow:

Bossier Parish—McKinney & Stewart, No. 1 Nattin, section 22-22n-14w, dry abandoned at 2,980 feet; L. M. Moffitt et al. No. 1 W. H. Martin et al. Section 2-21n-12w, dry abandoned at 2,927 feet.

Caddo Parish—Ark-la-Tex Oil Co., No. 1 Simon, 15-20n-15w, pumping 100 barrels oil daily at 2,243 feet; S. Bender, No. 1 Starr, section 26-20n-16w, 10 barrels daily at 2,253 feet; C. W. Brown, et al. No. 1 P. A. Sharpe, Section 10-18n-16w, two million feet gas at 940 feet; Texas Co., No. 6, W. E. Noel Fee, section 33-19n-16w, three million feet gas at 906 feet.

East Carol Parish—Holcomb & Thomasson, No. 1 Millikin, section 22-23n-12e, dry abandoned at 3,505 feet.

Sabine Parish (Zwolle)—Pelican Natural Gas Co., No. 36 Louisiana Longleaf, section 9-7n-11w, dry abandoned at 2,796 feet.

Union Parish (Monroe)—Carbons Consolidated, No. 1 Lankford, section 3-21n-3e, two million feet gas at 2,200 feet.

Completions last week in Arkansas follow:

Little River County—American Portland Cement Co., No. 1, section 21-12s-32w, dry abandoned at 2,540 feet.

Lonoke County—J. G. Strahan, No. 1 Hardin, section 18-2s-7w, dry abandoned at 820 feet.

St. Francis County—Field, Jenkins & Jones, No. 1 Walford, section 29-4w-1w, dry abandoned at 630 feet.

Daily average oil production in both North Louisiana and Arkansas showed some gain last week. North Louisiana's average mounted 270 barrels to 23,685 barrels and Arkansas rose 200 barrels to 30,600 barrels.

Daily average production for the last week in Arkansas districts follows: Rainbow City-El Dorado, 5,940 barrels, up 40 barrels; Smackover, light, 2,310 barrels, up 30 barrels; Smackover, heavy, 19,110 barrels, down 10 barrels; Lisbon, 350 barrels, up 10 barrels; Nevada county, 830 barrels, up 30 barrels; Stephens, 600 barrels, unchanged; and Miller county, 1,460 barrels, up 100 barrels.

## Oil Showing Near Camden Of Interest Louisiana Gets Four Pumpers—Rain Ham-pers Operations.

Shreveport, La., Dec. 1.—The newly discovered Taylor sand in the Rainbow City (Champagnolle) field, Union county, Arkansas, added its

### NOTES OF THE DAY.

Petroleum, commonly thought of as a fuel or a lubricant, has become a source of raw chemical materials from which may be made a widely divergent list of things—soap, rubber, dyes and alcohols. In discussing this list in a communication to the American Chemical Society, Dr. Carleton Ellis says that many of the coal tar products are now obtainable from petroleum, as well as some of the hydrocarbons not present in coal tar. Some of the innumerable alcohols obtainable possess superior advantages over ethyl alcohol. In making soap, petroleum wax is oxidized by being blown with air at a raised temperature, which causes the formation of acids similar to vegetable oils. These can be used in essentially the same way as the acids from olive oil or similar fatty oils are now employed.

second produce last week and gave increased momentum to a drilling campaign in that area that was already taking on important proportions. A dozen tests have started for the new sand since the first well was completed as a producer.

The new well is Alice Sydney Oil Company's No. 7 Gregory, southwest quarter 11-17-14, a half mile southeast of the first well in the new sand. It is flowing an estimated 1,000 barrels of oil daily through two and one-half inch choke, and is almost as good a well as the first one. Several tests are being deepened from the 3,200-foot Gregory sand horizon for the new sand.

The Rainbow City well was the most important completion of the last week in the North Louisiana-Arkansas territory. Three small pumpers were completed in the shallow Converse field, Sabine parish, and one was added in the old Wistar district, Bossier parish. A small gasser was completed in the Nacatosh horizon of the Blanchard gas field, Caddo parish, encountered at 900-1,000 feet.

Going from one extreme to the other, operations in some parts of the two states were hampered by excessive rains. Early in the month a five-months drouth had been broken and a number of wildcat tests, shut down for lack of water, were just getting ready to resume when the bad weather set in. The interruption of the Thanksgiving holiday also held down activity to some extent.

The most important wildcat development of the week was an oil showing encountered at 1,386 feet in Nacatosh in Gaughan et al's No. 1 Bragg, section 30-13-17, Ouachita county, Arkansas, several miles west of Camden. Two drill stem tests were made but were not satisfactory. Operators may deepen or may try for a producer at the present level.

Lawson, Leavell & Bryant of Tulsa, Okla., who are drilling No. 1 Whitney Corporation, section 5-9n-13w, a mile north of production in Converse, are drilling ahead below 2,300 feet, after having shows in the test at the 1,500- and 2,000-foot level and are heading for the contact of upper and lower Cretaceous around the 3,200-foot level.

Completions last week in North Louisiana follows:

Bossier Parish (Wistar.)—Goldman & Sklar, No. 4, W. A. Caplis, section 25-16n-12w, pumping 15 barrels oil daily at 1,559 feet.

Caddo Parish (Blanch Rd.)—Texas Co., No. 8, W. E. Noel Fee, section 4-18n-16w, 250,000 cubic feet gas at 921 feet, 335 pounds rock pressure.

Red River Parish—Louis L. Glass, No. 1 G. H. Dickson, section 32-12n-8w, dry, abandoned at 1,030 feet.

Sabine Parish (Converse)—Arco Producing Co., No. 1 Hewitt, section 20-9n-13w, pumping 10 barrels oil daily at 1,606 feet; Earl P. Halliburton, No. 3 A. J. Burkett, section 9-9n-13w, pumping 12 barrels oil

## Oil News Taylor Well Is Recorded As Producer Tops List for Week—New Operations in Rainbow Result.

Shreveport, La., Nov. 17.—(Special.)—Arkansas had only one completion last week, but its initial production ran into four figures, the first time this has happened in that state for many months. The new producer is Short and Hayes' No. 1 J. W. Taylor, section 10-17-14, Union county, Rainbow City field, which gauged 1,100 barrels of clean oil daily flowing through two and one-half inch tubing, through a one-inch choke. The well wide open might be good for as much as 4,000 to 5,000 barrels daily. The oil is 29.9 gravity, and is coming from six feet of sand at 3,360-66 feet, 150 feet below the Gregory sand horizon of the same field.

North Louisiana last week had 11 completions, of which three were pumping oil wells, three gassers and the rest failures. The largest of the trio was a 100-barrel pumper in the shallow Converse field, Sabine parish, which was treated with acid. The other small pumpers were in the Bellevue field, Bossier parish, and the Naborton (Bull Bayou) field, DeSoto parish. The latter well, which had the number of surprising games and John W. Oliver, 621 Olive street. Mrs. Ruth Oliver and Mrs. Ann Hammonds at the home of Rev. and Mrs. evening given by Mrs. Ruby Holland, chief shower and party Wednesday entertained with a farewell handkerchief shower and party Wednesday. Mr. and Mrs. C. J. DeVore were was elected reporter of the club. by her mother. Miss Juanita Cox were served by the hostess, assisted parties were made. Refreshments er plans for Christmas dances and Atkins catering, November 27. Thanksgiving dinner to be held at a street. Plans were made for a Mildred Schied, West Eighth Tuesday night at the home of Miss The supper given for the

daily at 2,044 feet; L. D. Higgins, No. 2 A. J. Burkett, section 16-9n-13w, pumping 10 barrels oil daily at 2,035 feet; Zan Lloyd, No. 1 Henderson, section 29-9n-13w, salt water, abandoned at 2,031 feet.

Completions last week in Arkansas follows:

Miller county.—C. V. Lenz, No. 5 Dale, section 24-15-26, dry, abandoned at 3,000 feet.

Union county (Rainbow City)—Alice Sydney Oil Co., No. 7 Gregory, section 11-17-14, flowing 1,000 barrels oil daily through two and one-half inch tubing at 3,362 feet.

Daily average oil production for the last week of November continued above its allocation in both north Louisiana and Arkansas. North Louisiana's average mounted 335 barrels to 23,580 barrels; the allowable is 21,500 barrels. Arkansas dropped 130 barrels to 30,400 barrels. Its allowable is 30,000 barrels.

Daily average production for the last week by districts in Arkansas follows: Rainbow City-El Dorado, 6,400 barrels, down 30 barrels; Smackover, light, 2,300 barrels, up 10 barrels; Smackover, heavy, 18,840 barrels, down 30 barrels; Lisbon, 330 barrels, down 10 barrels; Nevada county, 700 barrels, down 40 barrels; Stephens, 580 barrels, up 20 barrels; and Miller county, 1,250 barrels, down 50 barrels.

feet. It is on the east flank of the Sabine uplift. In township 18 north, range six west, L. K. McGuffin of Shreveport has assembled a large wildcat block for an early test. It is in an imaginary triangle between the Arcadia, Gibbsland salt domes and the Sugar Creek gas field.

Completions last week in north Louisiana follow:

Bossier parish (Bellevue)—The Premier Investment Co., No. 14 R. E. Wyche, Section 14-19n-11w, pumping 15 barrels oil daily at 451 feet. Caddo parish (Rosston)—Bayou State Oil Corp., No. 1 Shawmut Jolly, Section 22-22n-15w, salt water, abandoned at 1,036 feet. Caddo parish (Blanchard)—Pyramid-Louanna Oil & Gas Co., No. A-1, S. R. Weeler, Section 4-18n-16w, set tubing with packer, making two million feet gas daily at 902 feet; M. Segal et al., No. 2 P. A. Sharpe, section 11-18n-16w, set tubing on packer, making two million feet gas daily at 942 feet; Texas Company No. 7, W. E. Noel Fee, section 33-19n-16w, salt water, abandoned at 950 feet. De Soto Parish—Jack Clark, Trustee, No. 1 Moore Place, section 1-13n-15w, dry, abandoned at 1,676 feet. De Soto Parish (Naborton)—W. K. Williams, No. 1 Wemple, section 15-12n-11w, pumping 10 barrels oil, five barrels salt water daily at 2,734 feet. Morehouse Parish (Monroe)—Southern Carbon Co., No. 85 Fee, Section 14-20n-4e, gauged 5,072,000 cubic feet gas daily with 370 pounds rock pressure, at 2,160 feet. Sabine Parish

(Converse)—Helena Oil & Gas Co., No. 2 S. Heard, section 16-9n-13w, used acid, pumping 100 barrels oil, 10 barrels salt water daily at 2,056 feet; George L. Pace, No. 3 DeSoto Corporation, section 27-10n-13w, salt water, abandoned at 2,009 feet in Wolf City sand.

Arkansas' completion last week follows:

Union County (Rainbow City)—Short & Hayes, No. 1 J. W. Taylor, section 10-17-14, flowing 1,100 barrels clean oil daily through two and one-half inch tubing on one-inch choke, at 3,366 feet in six feet of sand.

North Louisiana and Arkansas oil production last week was more nearly within their allowables of 21,500 barrels and 30,000 barrels respectively than the week before, both states showing a decline. North Louisiana's average dropped 290 barrels to 23,395 barrels and Arkansas dropped 190 barrels to 30,410 barrels.

Daily average production for the last week by districts in Arkansas follows: Rainbow City—El Dorado, 6,520 barrels, up 580 barrels; Smackover, light, 2,280 barrels, down 30 barrels; Smackover, heavy, 18,600 barrels, down 510 barrels; Lisbon 340 barrels, down 10 barrels; Nevada county, 750 barrels, down 80 barrels; Stephens, 580 barrels, down 40 barrels; and Miller county, 1,380 barrels.

## NEW BOOK TELLS OF OIL GEOLOGY

Intended to Encourage Intelligent Prospecting in Arkansas Coastal Plain.

First copies of a book dealing with "Oil and Gas Geology of the Gulf Coastal Plain in Arkansas," were available yesterday, and George C. Branner, state geologist, said the publication was intended to encourage intelligent prospecting for oil and to promote discovery of new producing areas.

The author is W. C. Spooner, geologist of Shreveport, La., who completed the volume under direction of Mr. Branner. It was privately printed, but made use of all available state records, through agreement with the Parke-Harper Printing Company and the state geologist's office.

Oil production in Arkansas for the 14-year period ending in 1934, totaled 420,000,000 barrels valued at about \$405,000,000, it is estimated.

The book describes the principal producing area of the Gulf coastal plain in Arkansas as situated within a belt 15 to 20 miles wide, extending through the Irma Field in Nevada county, through central Union county to the Louisiana line.

## State's Vast Riches Shown

Ark. Democrat - Jan. 27, 1935

### Geologist Traces Big Areas Producing Oil and Gas.

"Oil and Gas Geology of the Gulf Coastal Plain in Arkansas" is the title of a book recently completed under the direction of George C. Branner, state geologist, and now available for distribution.

The publication deals with essential geographical information, production statistics and estimates of future production of oil in the state. The publication was prepared by W. C. Spooner of Shreveport, La.

Importance of the oil and gas industry to Arkansas is evidenced by the fact that during the 14-year period ending in 1934, there was produced approximately 420,000,000 barrels of oil in Arkansas, valued at \$405,000,000, and it is toward the systematic and intelligent production of oil in the future that the purpose of the new publication is directed, Mr. Branner said.

The first section of the book discusses the geological formations of the gulf coastal plain, and the second section deals with the various producing areas. The third section is devoted to a resume of the geology and oil and gas possibilities of each county, including a list of wells drilled in each county. Structure contour maps of the more important horizons, detailed well sections, and rate cumulative curves are given. The publication contains 548 pages, 117 plates and figures and is cloth bound. It has been in process of preparation for several years.

#### Principal Producing Areas.

The principal producing areas of the Gulf Coastal Plain in Arkansas are situated within a belt 15 to 20 miles in width, which extends from the Irma Field in Nevada county through central Union county to the Louisiana line. In this belt, 14 distinct producing areas have been discovered since 1921. The total productive acreage of these areas is about 49,365 acres, and they vary in size from 85 acres, the area of the Bradley field, to 29,505 acres, the area of the Smackover district. The major portion of oil produced is obtained from the Upper Cretaceous, or (Gulf Series) formations, and of these the Nacatosh sand and Ozan formation are by far the most prolific. Their yields are nearly equal, and their combined production is about 93 per cent of the total yield in the Gulf Coastal Plain in Arkansas.

The present publication of this material was made possible by an agreement with the Parke-Harper Printing Company of Little Rock, whereby that company has undertaken to publish it as a private enterprise, without cost to the state. By virtue of this arrangement, the office of state geologist will act as an agent in the distribution of copies. Orders may be placed with either the office of state geologist or the Parke-Harper Printing Company, Mr. Branner said.

It is intended that the information contained in the report will encourage intelligent prospecting for oil, and will prove to be a contributing factor toward the discovery of new producing areas within the gulf coastal plain in Arkansas.

## Arkansas Coastal Geology Is Discussed in New Book

"Oil and Gas Geology of the Gulf Coastal Plain in Arkansas" is the title of a book just issued by the Arkansas Geological Survey of which George C. Branner is chief geologist. The book was prepared by William C. Spooner, consulting geologist of Shreveport, Louisiana.

The book contains 548 pages and is cloth bound. It is divided into three sections. The first is a discussion of the geology of the Gulf Coastal Plain in Arkansas; the second deals with the various producing fields of Arkansas; and the third is a discussion of the geology and oil or gas possibilities of each county with a list of all the tests drilled in each county. Structure maps, detailed well sections, and rate cumulative curves are given.

According to the publication for the 14-year period ending with 1934, approximately 420,000,000 barrels of oil were produced in that state.

## Arkansas' Oil Supply Is Rapidly Diminishing

Camden News - April 19, 1935

Little Rock, April 19. —(UP)—Careless and ruthless oil men wasted \$62,877,000 of Arkansas' oil and gas supply, Dr. George C. Branner, state geologist, has computed. Now they're hunting new production in a deep test in the Rainbow City field near El Dorado and unless they find it Arkansas' fash diminishing supply soon will be gone.

That wasted wealth, gone forever, belonged to no particular group of individuals. It was part of Arkansas' great natural resources.

The orgy of waste began when the Dusey discovery well was drilled in west of El Dorado in 1921. As the field developed southward into what became the South Field the waste increased. Operators went wild with the boom town mania and worked feverishly with but one objective—to get oil out of the ground and on the way to market.

No one cared how many thousand cubic feet of the natural gas it took to raise a barrel of oil through the casing to the surface. No one was particularly alarmed when a well blew out of control except for the fire hazard.

That disregard for the precious gas extended into the Smackover field when deep sands were struck in 1925, 1926 and 1927. Ten producing areas had been discovered around El Dorado up to 1928 and that disregard appeared in each of them with various sameness.

As long as new sands were available for the drilling what did operators care for wasting gas?

Then came the day of reckoning. No new sands could be discovered, natural flow stopped in the wells and the fields "went on the beam." And the pumps have been swinging those beams ever since—punctuating a rebuke of wasteful operation with each stroke.

Oil men have learned their lesson now but perhaps the lesson came too late.

"It is difficult, if not impossible, to calculate with any degree of accuracy the losses incurred by the wasteful operation," Dr. Branner said, "but they may be classified as follows:

"(1) Loss of the gas itself; (2) the loss of the gasoline vapor carried by the gas, and (3) the material reduction in the quantity of oil recoverable from the oil sands by present production methods due to the reduction of gas pressure in these sands."

The third loss was the greatest, he said, for "besides making a substantial quantity of oil perhaps permanently unavailable it has resulted in the more rapid encroachment of salt water on the oil sands and has materially reduced the amount of oil which can be pumped with a given amount of energy."

Dr. Branner's records indicate 227,000,000,000 (b) cubic feet of gas valued at \$38,000,000 was taken from Southern Arkansas fields during the period of 1921 to 1934

inclusive. A fourth of it was wasted during the flush production days, he estimated.

Assuming that the wasted gas had an average content of 2.5 gallons of gasoline per 1000 cubic feet and that the gasoline was worth 8 cents a gallon, a mere \$11,350,000 was blown into the air! Add to that the value of 45,400,000,000 cubic feet of the natural gas after the gasoline was extracted and you raise the figure by \$7,627,000, Dr. Branner computed.

The big loss is in the unrecoverable oil still in the ground. South Arkansas produced 407,881,000 (m) barrels of oil during the period 1921-1934 valued at \$372,875,000. The ultimate economic production under present methods, Dr. Branner estimated, is 480,000,000 barrels. If the gas had been conserved, he said, "it is not unreasonable to assume that the ultimate oil recovery would have been increased 10 per cent or about 48,000,000 barrels, having an estimated value of \$43,900,000."

Add up the losses and see where \$62,877,000 worth of gas and oil went.

There's another angle to that loss. The state of Arkansas probably would have received an additional \$1,250,000 in direct taxes alone.

Operators are reaping their rewards of waste now. Natural gasoline plants—cracking plants—are piping gas from Louisiana to supplement the deficient Arkansas supply. They have learned economy, too. After they extract the gasoline they return the gas to the producers for use as fuel!

If H. L. Hunt, Tyler, Tex., operator, hits a deep sand in his test well near El Dorado, Dr. Branner is certain there'll be no wasting of the precious gas.

## LION OIL CO. USES STATE'S PRODUCTS

### Manufacture of Petroleum By-Products Increases Output Annually.

April 19, 1935  
The manufacture of many petroleum by-products greatly increases the yearly output of the Lion Oil Refining Company, one of Arkansas's largest industries, according to reports received from Lion officials.

In discussing the development of by-products, Col. T. H. Barton, president of the Lion Oil Refining Company, said:

"It is the policy of Lion to develop and prepare for use petroleum by-products at our own refinery. This policy assures for Arkansas the greatest possible good from our operations, furnishing employment to an army of men at the refinery and in the fields. In addition to the people directly employed by us, Lion's operations help indirectly many other industries."

The development of markets for paving grades of asphalt, road oils, fuel oil and many other petroleum by-products has been rapid. These Arkansas made products are shipped, along with Lion Knix-Knox gasoline, into 29 states and Canada, and much is exported to foreign countries.

Due to the extremely high grade of asphaltic products made from the famous Smackover crude and Lion's modern marketing methods, Lion has created a wide acceptance for roofing asphalt and asphalt roof coating. Lion asphalt roof coating can be applied cold with a brush at a very small labor cost. Roofs covered or built up with this product last as long and carry the same guarantee as hot asphalt roofs. Contractors and large industrial plants throughout Lion's territory are said to be using Lion asphalt roof coating in increasingly large quantities.

Other asphaltic by-products made by Lion and sold by lumber dealers, hardware and grocery jobbers throughout the Gulf Southwest include Plaster Bond, Black Asphalt Paint, Asphalt Flux and Plastic Cement.

#### Insecticide Ready for Market.

On April 15 Lion will have ready for distribution Lion insect spray, a special insecticide designed especially for

Southern use. Lion's chemists and research experts have worked continuously for three years preparing this new product for the Southern market.

Lion insect spray has an extremely high insect-killing power, yet is entirely harmless to humans and pets. In addition, it has many household uses, being designed to aid in house cleaning. It cleans windows, glassware, porcelain stoves, refrigerators, sinks and bathtubs. Lion bulk plants throughout Arkansas, Mississippi, Tennessee and Alabama are being stocked with Lion insect spray. This product soon will be available through retail grocery and drug outlets, as well as at all Lion Service Stations and dealers.

#### Total Refinery Output Great.

Shipment of petroleum products from Lion's refinery at El Dorado averages a train load a day. This included Knix-Knox gasoline shipped to Lion Oil Sales Company, marketing subsidiary of the refinery. The Lion Oil Sales Company has over 500 service stations, dealers and bulk plants in the states of Arkansas, Mississippi, Tennessee and Alabama.

"Lion is strictly an Arkansas com-

pany," Colonel Barton said. "All of Lion's officials and most of our stockholders live in the state. Lion's payroll of over \$1,200,000 creates a vast purchasing power and adds materially to the economic welfare of the state. It is the policy of Lion to use to the fullest extent the resources of our holdings in Arkansas and Texas. By developing our by-products here, we are helping our own people and aiding thousands employed in other industries

such as transportation, machinery and kindred lines."

## Geologist Declares \$62,877,000

### In Oil and Gas Wasted in State

El Dorado Evening Times - April 19, 1935  
Substantial Quantity Oil Permanently Unavailable

BY TED H. MALOY (United Press Staff Correspondent)

LITTLE ROCK, Ark., April 19.—(UP)—Careless and ruthless oil men wasted \$62,877,000 of Arkansas' oil and gas supply, Dr. George C. Branner, state geologist, has computed. Now they're hunting new production in a deep test in the Rainbow City field near El Dorado and unless they find it Arkansas' fast diminishing supply soon will be gone.

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and worked feverishly with but one objective—to get oil out of the ground and on the way to market.

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(Continued on Page 4)

# OIL! OIL! OIL!

Well Now Drilling --- 12 Miles  
from Little Rock on Pine Bluff Highway  
TURN EAST AT WRIGHTSVILLE

Our well was spudded in Oct. 21, surface casing was set in cement Nov. 1st. The plug will be drilled TODAY (Sunday, Nov. 10.) This is a real test for OIL—and WILL be DRILLED TO COMPLETION. COME out any time and see an honest to goodness OIL WELL being drilled. We are offering a limited number of leases, desirably located, at reasonable prices. "You Should Own For Your Very Own"—all you can afford to buy. Get Information on Location—

—OR VISIT OUR OFFICES

107-9 NATIONAL STANDARD BLDG.

PHONE 4-2786

## BASE LINE OIL COMPANY

Section 34-17s-4w, dry abandoned at 2465 feet.  
The past week's two Rodessa completions (Caddo Parish, La.) are: Haynes Production Company, No. 2 Otwell, Section 14-23n-10w, flowing 206 barrels oil an hour through two-inch choke on casing, at 6,012 feet; Arkansas-Louisiana Gas Co., No. 3 Rodessa Oil and Land Co., section 22-23n-16w, flowing 92 barrels oil an hour through half-inch choke on tubing from 6,000 feet.

### Trial of Memphians in Oil Stock Case Postponed.

Evansville, Ill., Dec. 6 (AP).—Trial of three Memphis (Tenn.) men charged with selling unregistered oil company stock, was postponed indefinitely here today. The three, J. S. Henderson, 32; William J. Beyer, 50; and William R. Chapman, 31, pleaded innocent when arraigned November 18.

They are alleged to have sold stock in the Pope-Henderson drilling syndicate which held a lease on Arkansas land. The Illinois Securities Commission said the stock was not registered with it.

# OIL

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SELECT YOUR LEASES NOW!

### Offers Some Advice Regarding Oil Leases.

To the Editor of the Gazette:

I hope every land owner who owns near any wild cat oil test will take time to read this and will seek legal advice—I am not a lawyer—before signing away his mineral rights, or any part of them.

We have vast areas of land and many favorable oil structures in Arkansas, where the leases can not be assembled into drilling blocks for wild cat testing of probable deeper oil sands because of instrument of conveyance executed by the land owners to royalty buyers when these areas were drilled to the shallow sands a few years ago.

The customary standard form of seven-eighth oil and gas lease given, or sold, the wild cat or oil operators, reserving one-eighth royalty to the land owner is O. K. The citizens of any community should be interested in aiding in the assembling, or blocking, of leases for development (wild cat test).

Likewise, every professional man, business man, and land owner of each community, should advise himself, and aid in any effort to prevent the use of this damaging oil, gas and mineral royalty deed, which runs forever. It is so worded that it conveys to the purchaser, not only a portion of the one-eighth royalty reservation under the existing lease on the land covered, but also takes an equal amount of the annual rentals and forever blocks the land owner, his heirs or assigns, from giving another valid lease on the land so covered.

I tried to stop the use of these forms, or instruments of conveyance, on the ground that it would ruin the possibility of Arkansas becoming one of the nation's biggest oil producing states, when it first appeared after discovery of oil in 1921. I failed to get sufficient co-operation in drafting proper legal forms.

I am not accusing any person, or group of persons, of crookedness. It is the prevalent printed form of conveyance I am condemning.

Today there are in south and central Arkansas many promising undeveloped oil structures, which may never be tested, because it would cost the wild cat more to get the land owners' leases ratified by the non-resident mineral conveyances, than he can afford to spend on a prospective oil test.

Therefore, in the interest of future development and community progress, permit me, Mr. Landowner, everywhere in Arkansas, to suggest to you that when you sell a portion of your one-eighth royalty reservation forever, that you reserve to yourself, your heirs or assigns, the customary seven-eighths lease rights, forever.

I hope our Arkansas Gazette will carry this article for the benefit of the people, and that the county papers throughout the grand old prospective oil state of Arkansas will reprint it for their communities' protection and progress.

J. R. Riley Jr.

Little Rock, Ark.

## Extension Of Rodessa Field Looms

Special to the Gazette.

Shreveport, La., Nov. 9.—Extension of the Rodessa deep oil area of Caddo parish, loomed with completion of Vaughn Production Company's No. 1, Section 10-23-16, promised late last week as the well showed traces of oil in early stages of "washing in."

Completion, which would prove considerable new acreage for production and give impetus to the drilling campaign, was under way at a depth of 5,996 feet from the Dees level, which is the third gas pay horizon in the Rodessa field proper.

The field has 25 active drilling operations, and the proven oil area is about two miles northeast, southwest with a width of about a half-mile at places. In the four months since the discovery well was completed, 516,466 barrels of crude have been produced from the district.

### Two New Producers.

The thirteenth and fourteenth oil producers were completed the past week. Haynes Production Company's Otwell 2, Section 14-23-16, was completed from 6,012 feet with first flow of 606 barrels an hour through two-inch casing chokes. Arkansas-Louisiana Gas Company's Rodessa Oil and Land Company No. 3, Section 22-23-16, completed from 6,000 feet, made 92 barrels an hour through half-inch tubing choke. Both were free of salt water and inside the proven area.

Two more outpost tests whose outcome are due next week, will be watched closely. They are being drilled by R. W. Norton, discoverer of gas at Rodessa. His Foscoe No. 1, Section 20-23-16, is a mile due west of production, half a mile east of the Texas line, and his Tyson No. 1, Section 13-23-16, is a mile northeast of nearest production. Both are drilling below 5,800 feet.

The same operator this week started rigging up for a test in Cass county, Texas, the second in search of deep oil pay in that area. It was his Haywood No. 1 in the Priscilla Evans survey, a half-mile west of his Foscoe No. 1. The other test in this county, American-Liberty Oil Company's Rogers No. 1, in the C. M. Robinson survey, four miles northwest of production, started drilling below surface casing last week.

### Two Tests in Arkansas.

Activity was started this week on the first test across the Louisiana line in Arkansas in search of the oolitic gusher pay. Equipment was being moved in from the field in Miller county at Gov. O. K. Allen (of Louisiana) et al.'s Embree Heirs No. 1, southwest southwest 9-20-28. On a spread of about 1,200 acres in which Lieut. Gov. James Noe also has an interest. The location is about 2 3-4 miles north of nearest production.

Assembling of two new wildcat blocks in the north Louisiana area, on which 6,000-foot operations are contemplated, was completed last week. In Caldwell parish, about six miles north of Columbia, parish seat, A. R. Taylor of Nevada, Mo., has completed assembling a 7,000-acre block centering around location staked at Hawkins No. 1, Section 42-14-4E. A 6,000-foot test is planned.

About four miles southeast of Monroe, Gus Primos of Monroe last week completed assembly of a 3,000-acre spread and staked location for a planned 6,000-foot operation at Arent No. 1, Section 8-17-4E.

Preparations for deeping a well in the center of the Zwolle chalk rock field of Sabine parish to test possibilities of oolitic lime production in that area, was started by A. H. Tarver, Shreveport operator. He has gone back in Baker No. 1, Section 36-8-12, to clean out the hole bottomed at 4,200 feet. It is the highest test structurally drilled in the field.

### Three Blocks Assembled.

Three other blocks for wildcat operations were assembled this week. On a block of 7,500 acres centering around Section 1-21-9, Webster parish, C. H. Lyons and E. F. Neely of Shreveport have staked location for Lee No. 1, Section 1-21-9. In Bienville parish, William McDowell has assigned his recently assembled block to J. M. Collins et al. of Shreveport that centers around Township 15, Range 10 West and consists of 5,000 acres. A 5,000-foot test is planned.

Completing the assembling of a block of about 5,000 acres, centering around Section 36-21-13, Bossier parish, McKinney & Humphrey erected derrick for a 3,500-foot test, Burkley No. 1, northeast southwest 36-21-13.

Triangle Drilling Company which last week announced deep operation at Skannel 1, Section 13-17-12, in the Slige gas field of Bossier parish, set surface casing. In the Sugar Creek field of Claiborne parish, United Gas Public Service Company et al.'s Darrett No. 2, Section 21-2C-5, another deep operation, was preparing to spud.

N. T. Oakes' Patton Estate 1, Section 1-20-4, Claiborne parish, planned as a deep operation, was drilling at 4,013 feet. Also in Claiborne parish, Ryan Oil Corporation's Gladney 1, Section 27-20-7, a 5,000-foot test, was drilling at 3,827 feet. In the Dixie field of Caddo parish, the Hunter Company set surface in its Fee 1, Section 17-19-14, another deep operation.

Texas Seaboard Oil Company's W. B. Bynum No. 1, Section 34-17-4, Ashley county, Arkansas, second test by operators on block of 10,000 acres, was plugged and abandoned at 2,465 feet in igneous rock. In the same county, Benedum & Trees Oil Company's Holmes 1, Section 4-17-5, was reported at 3,742 feet, a 6,000-foot test.

Four miles southeast of Garland City pool, Miller county, Arkansas, King Oil Corporation of Texarkana was drilling at 3,050 feet in its G. W. Crank 1, southwest northwest 19-16-25, a proposed test to the Rodessa pay. Joe Modisset's Frost Lumber Company 1, Section 21-19-24, Lafayette county, a proposed 6,000-foot test, was reported at 4,939 feet. In the same county, S. H. Riggs et al.'s Dubose 1, Section 35-15-24, set casing at 2,800 feet, after claiming oil saturated sand from 2,814 to 2,822 feet.

Six miles west of Camden and about two miles southwest of T. J. Gaughan's Bragg No. 1 producer, immediately around which several failures have been completed, W. R. Street spudded Carter et al. 1, southwest northeast Section 35-13-18, Ouachita county.

Daily average production this week in the North Louisiana district totaled 31,294 barrels. Daily average yield by districts follows: Caddo, heavy, 14,154 barrels; Caddo, heavy, 2,348 barrels; Red River-DeSoto, 1,369 barrels; Elm Grove, 400 barrels; Homer, 2,536 barrels; Haynesville, 3,390 barrels; Cartersville, 496 barrels; Cotton Valley 384 barrels; Urania, 2,660 barrels; Pleasant Hill, 160 barrels; Zwolle, 2,746 barrels; Holly, 153 barrels; and Bellevue, 498 barrels.

Daily average oil production in Arkansas totaled 29,874 barrels. Daily average yield by districts follows: El Dorado, 1,665 barrels; Calion, light, 1,999 barrels; Calion, heavy, 3,102 barrels; Smackover, light, 2,243 barrels; Smackover, heavy, 17,725 barrels; Lisbon, 307 barrels; Nevada, 680 barrels; Stephens, 602 barrels; Miller, 1,500 barrels; and Camden, 52 barrels.

### Four Wells Completed.

Four wells were completed in North Louisiana and Arkansas last week, outside of two gushers completed in the Rodessa field.

A list of the wells follows:

North Louisiana—Bossier Parish—V. M. Miller, No. 18 Curtis Plantation, section 19-17n-12w, salt water, show gas, abandoned at 865 feet, will drill new hole.

Caddo Parish—A. D. King, Trustee, No. 1 Sallie Roach, section 4-14n-16w, salt water abandoned, show of oil and gas, after acid treatment, at 2712 feet, chalk.

Union Parish (Monroe)—Nemours Corporation, Haile 2, section 1-21n-5e, quarter-million feet gas with 870 pounds rock pressure, at 2190 feet. Arkansas—Ashley county—Texas-

The Anniversary of an

# Arkansas Oil Pioneer

*January 12, 1930*  
Fifteen Years Ago Today, Two Days After the Discovery of Oil There, Col. T. H. Barton Arrived at El Dorado. He Has Become a Leading Figure in the Petroleum Industry in the State.

By EDGAR B. CHESNUTT

Fifteen years ago today the state in general and Southwest Arkansas in particular were in the throes of a wave of excitement.

Oil had been discovered at El Dorado!

Two previous attempts to find the chocolate-colored fluid in this vicinity had resulted, it is true, in the discovery of gas, but the flurry this caused was faint compared to the commotion that followed the bringing in of the famous Busey oil well at 4:30 on the afternoon of January 10, 1921, at a depth of 2,223 feet.

The well was located on an 80-acre tract in section 17 of township 31, a mile west of El Dorado, for which Dr. S. T. Busey, the owner, is reputed to have paid \$10,000. Charles Daniels was the driller on the project.

The little town of El Dorado became a thriving metropolis almost overnight. Money, in large denominations, passed hands like so many marbles for land and leases.

Land values boomed to such heights that only a few weeks after the discovery well had been capped the record price of \$15,000 was paid for a one-acre tract.

The story of the discovery and development of the field has become one of the most fascinating chapters in the Twentieth century Arkansas history particularly interesting at this time because it is the anniversary of its inception.

Needless to say, thousands of people were attracted to El Dorado by the oil boom. Some came out of mere curiosity, while others were carried along with the crowd. But there was still another group, composed of men who came with a purpose, who were eager to take advantage of some of the many opportunities that offered themselves.

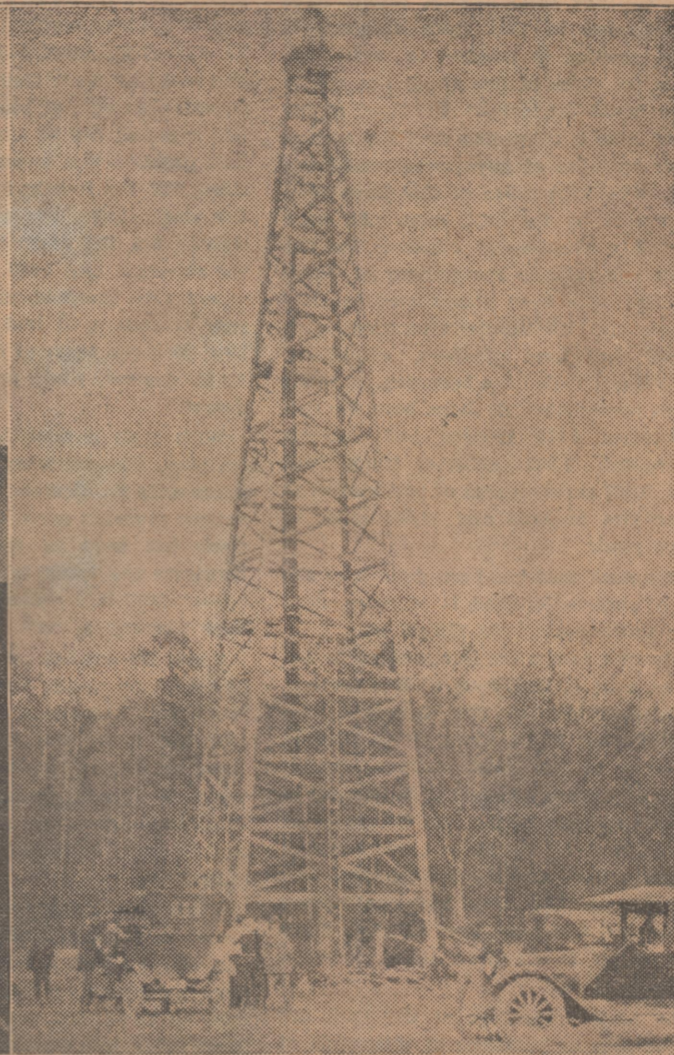
Today is the anniversary of the arrival in the midst of the oil field excitement of one of those men, and while the story of the career of Col. T. H. Barton is not nearly so well known as that of the oil field which he helped develop, it is equally, if not more colorful.

It is strikingly singular, too, that of all those who participated in the historic boom and who helped develop various phases of the industry to large proportions, he is the only one who remained to build an industry out of the excitement and confusion about him. The others figuratively skimmed the cream off the surface and passed on to newer fields. Not so with Colonel Barton. He has remained to develop the oil business and become one of the leading figures in his business in the Southwest.

The arrival of Colonel Barton in El Dorado on January 12, 1921, marked the final turning point in a career that has been so varied and so picturesque that it borders on the dramatic. It has been a career that carried him from one business to another, from one state to another and then back to the one in which he started and back into the second again.

It is significant that he built and operated the first casing-head plant in the El Dorado fields, significant in that it showed that the Barton family trait of being first had not waned. His grandfather, L. B. Barton, assisted in organizing the county of Falls in Texas and served as the first sheriff and first county clerk, issuing to himself the first marriage license in the county. And Colonel Barton's father, T. K. ("Doc") Barton was the first white child born in the county.

Colonel Barton's father was a saddle



Col. T. H. Barton, who has become an outstanding figure in Arkansas in the oil industry, is shown at his first desk in this state shortly after his arrival at El Dorado. At the upper right is a picture of the first gusher his company brought in in the El Dorado field. Below is a scene at the laying of a gas pipeline constructed by his company, the first in the field.

maker at Marlin, the county seat of Falls county. He manufactured saddlery and harness which was sold in Marlin and surrounding counties and the first taste of business life that the colonel had was in working in the store, in which he spent his spare time oiling the leather equipment and polishing the brass fittings.

Young Barton finished high school at Marlin and got in a year at Texas A. & M. College before his family met with financial reverses that forced him to curtail his higher educational ambitions. His maternal grandfather, Sam Johnson, did contribute a bale of cotton which was converted into cash to help him start his second year at college, but his funds were exhausted before the term was well along.

Forced by these circumstances to support himself, he turned to working in a

department store in Galveston for \$10 a week. Of this he paid \$7 weekly for room and board that did not include Sunday night supper. For this meal he and his closest friend, Clark Forne, who had a little better job and could afford to finance the missing meal, each had a bowl of chili. Colonel Barton was in Galveston during the disastrous flood of 1900 and served on the Relief Committee.

There is one incident he will never forget in connection with his work in Galveston. Early in 1900, he had saved \$12 for a new suit for Easter. He boarded a street car in his new clothes on Easter morning to go to church. A few blocks down the line his employer, who was rather grouchy and unapproachable, boarded the car and began to stare at the new suit as if he could not under-

stand why one in his employ should have a new suit. Finally the young clerk stood it as long as he could and alighted from the car and walked the rest of the way to church.

Young Barton continued in the employment of the department store until June, 1901, when he enlisted as a private in the regular army. He was discharged in 1904 with the rank of corporal.

By this time he began to fear that the lack of more education might prove a serious handicap to his ambitions and he sought a way to work his way through college. He made a trip to the East and interviewed the head of a well known military college, hoping that he might capitalize in some way on his own military experience in paying for his education. But he could find no work on the campus or in the town where the school was located and he was forced to abandon his plans. It is interesting, however, to relate that both of his sons have been graduated by that same school.

Unable to re-enter college, he decided  
(Continued On Page 5.)

(Continued From Page 1.)

that his next best bet would be to get employment with a large corporation where he might work up to a high office. After much effort he landed a job with the Wells-Fargo Express Company at Texarkana at a salary of \$10 a week. What little money he had been able to save out of his \$13 a month salary in the army had all been spent by this time and he did not have enough even to buy a pair of overalls in which to work, so he worked in his regular clothes.

Before many months had elapsed he had received three promotions, first to billing clerk, then to manager of the transfer office and finally to express messenger. The last position he took against his wishes. While working for the express company at Texarkana he was impressed with the diligent efforts of a mail clerk on one of the trains that came through the town. Finally he met the man one day as he stepped off the train with several mail sacks on his back. The mail clerk was Harvey Couch, the same Harvey Couch who later became president of the Arkansas Power and Light Company, the Louisiana and Arkansas Railroad Company and a director of the Reconstruction Finance Corporation.

And Mr. Couch has not forgotten those days nor Colonel Barton. Speaking of their days together, then, Mr. Couch said last week: "Colonel Barton was a great, big active type, full of business and with plenty of steam, with his six-shooter strapped to his side to protect express valuables. I felt then that he would not stop where he was but would go up in the world. His achievements have vindicated my estimation of him. I think that he will go farther."

About this time Colonel Barton had his first experience with newspapers. It was the first of three experiences with them that were to prove definite turning points in his career. Baggage and express to him was something to throw around and on his third trip as a baggage clerk between Texarkana and Fort Worth a bundle of newspapers he had deftly pitched at a pile in the middle of the car floor ricocheted and fell out of the open car door. The express company promptly fired him.

But such a little thing as being fired failed to dampen his ardor. He turned immediately to another corporation and obtained a job with the New York Life Insurance Company as an agent at Stamps. For four months he went about this little town writing insurance when he could but mostly meeting people. He was offered the position as cashier of the Bodcaw bank. The cashier at that time, a Mr. Hunter, was anxious to go back to Atlanta and the directors selected Colonel Barton.

"At that time," he recalls now, "the bank was a one-man affair. I was really the cashier, bookkeeper, teller, janitor and general factotum. When any of the depositors came in and asked about the bank I told them anything they wanted to know and even took a lot of them back and showed them the new vault and explained the operation of the intricate combination."

One day a stranger came into the bank and made some inquiries. Mr. Barton, in his courteous manner answered the best he knew how. The stranger commented on the fact that the deposits had shown a noticeable increase in the last six months. On his departure Mr. Barton asked C. L. Cabe, the president, who the stranger was. "Oh, him?" Mr. Cabe replied. "He's a banker from Fordyce. He owns the controlling stock in our bank." The stranger was A. B. Banks.

A few days later the mail brought Mr. Barton an offer from Mr. Banks of a position as office manager at Fordyce at the salary of \$200 a month.

"I had never heard of such a salary," the colonel recalls, "and I frankly told Mr. Banks I did not think I would be worth it."

But Mr. Banks prevailed upon him to accept it. A short time later another ambitious young man joined the Banks organization at Fordyce. It was Charles S. McCain, who later became one of the biggest bankers in the East and is now president of the United Light and Power Company of Chicago.

It was but a short while before Mr. Bar-

## OIL GUSHER IS BROUGHT IN IN UNION COUNTY

Busey-Daniels Well May  
Produce 10,000 to  
30,000 Barrels.

### EXPERTS ENTHUSE

Is Declared Better Producer  
Than Any Well in the  
Homer Field.

LEASE TRADING STOPPED

Special to the Gazette.  
El Dorado, Jan. 10.—Union county's dream of oil, which twice last year was interrupted by the bringing in of gas wells, apparently is a reality. Bu-



Here is the most recent photograph of Col. T. H. Barton of El Dorado, with a reproduction of the front page headline in the Gazette on January 11, 1921, announcing the discovery of oil in the El Dorado field.

ton was called back to Stamps on business for the bank and while there decided to go into the lumber business. Here again a newspaper figured prominently in his career. He answered an advertisement in the Arkansas Gazette for a position as head bookkeeper for a lumber concern in Pittsburg, Tex. He got the job, which paid \$85 a month.

But he had not been with the firm two months when he learned that it was insolvent and receivers were appointed for it. The receivers appointed him as manager and he wound up the affairs of the company in 1907. This job completed, he entered the wholesale lumber business for himself until 1912.

While in Arkansas, Mr. Barton had been commissioned a captain in Company G, Second Arkansas Infantry, Arkansas State Guard. His commission was signed by Gov. Jeff Davis. In 1916, after it became apparent that the United States would enter the World war, Captain Barton requested the War Department to examine him for a commission in the Officers Reserve Corps. This was done and he received one of the first commissions in the Southwest as captain of cavalry and was assigned to duty at Camp Stanley, but when he notified the War Department he would be delayed a few days in reporting because of a minor operation, he was, due to red tape, notified not to report. This did not daunt him, however, and on hearing that a training camp, Camp Bowie, was being opened at Fort Worth, Tex., he proceeded there and enlisted as a private. At the

end of the training period he was commissioned a captain and assigned to Company K, 141st Infantry, 36th Division. He served with that unit until the day it received orders to proceed overseas. On that day Captain Barton received a telegram from the adjutant general, ordering him to report to the governor of Texas to assist in organizing and training six regiments of cavalry. He was advanced to the rank of colonel of cavalry in one of these regiments, a title he still holds in the United States Reserve Corps, and remained at Camp Stanley until the close of the war.

Before enlisting he had spent some time in Dallas in the oil business in a small way, and on being discharged he returned there to become active in it again.

Early in 1920, while in Shreveport on business, a friend informed him that there was considerable oil activity around Stephens and Colonel Barton went there to spend three days purchasing leases. One afternoon he heard that a big well had been brought in at El Dorado. A telephone call brought him the information from the long distance operator at El Dorado that a "big well" had been brought in, but she could not tell him whether it was oil or gas. He decided the only way to get the information he desired would be to go to El Dorado.

"A friend and I hired an old car and left Stephens about three in the afternoon," the colonel recalls now, "and by hard driving and after much car trouble we arrived in El Dorado at one the next

## EL DORADO IS SCENE OF GREAT ACTIVITY

Bringing In of Oil Well  
Causes Hundreds to  
Flock There.

### LEASES TAKE BIG JUMP

Several Tracts Bring \$1,000 an Acre,  
While Many Others Also Com-  
mand Fancy Prices.

By Fletcher Chenault.  
(Staff Correspondent of the Gazette)  
El Dorado, Jan. 11.—The Great stampede to the El Dorado field, following the blowing in of the Busey,

## THREE NEW WELLS IN AT EL DORADO

Production of One Is Estimated  
at Over 20,000 Bar-  
rels Daily.

### FIELD GREATLY EXTENDED

Operations Now Practically at Stand-  
still While Drillers Help to Con-  
quer Burning Gasser.

By Fletcher Chenault.  
(Staff Correspondent of the Gazette)  
El Dorado, March 13.—The El Dorado field broke all records today by

These two front page headlines from the Gazette in 1921 indicate how rapidly the El Dorado field developed after discovery of oil.

morning. It took us 10 hours to make the trip.

"We found that the Home Oil Company had drilled in a gas well that was flowing a lot of water, but the situation looked good to me, so I opened an office at the Garrett hotel and began to buy leases with what limited means I had. This was April, 1920, and I remained in and around El Dorado until the summer of that year, during which time I invested practically all of my resources."

Then the colonel returned to west Texas to attempt development of leases and properties he owned there. He was drilling a well south of Breckenridge and had invested his last \$400 in a charge of nitroglycerin in an effort to bring it in.

"For a minute or two," he declares today, "it looked like I might be a millionaire, but I woke up to find that I was minus all of the money I had sunk in the hole."

Not to be discouraged by this failure, he began seeking other prospects and a newspaper was soon to play another important part in his life. Returning to Breckenridge he bought a paper and the first article he noticed in it was the announcement that the Busey well had been brought in at El Dorado.

"I'll never forget the words of that headline," he recalls. "They were: 'Fort Stockton, What Do You Think of This? El Dorado, Arkansas, Brings in 20,000-Barrel Well.'"

The first train to El Dorado did not run soon enough for the colonel, who had to walk a mile through snow and sleet to catch it at 4 o'clock in the morning. The Busey well came in at 4:30 on January 10, and the colonel arrived on the morning of January 12, just 15 years ago today.

This time, however, he turned his attention to a new phase of the oil and gas industry. He organized the El Dorado Natural Gas Company and purchased gas from the Home Oil Company to supply drilling rigs. The business soon grew to where the Barton company was supplying gas to all the pumps and drilling rigs in the entire territory. In the natural course of events the Barton company began to produce oil, too, and pipelines were constructed.

"By this time," Colonel Barton says, "our operations were becoming so enlarged that it was necessary for us to get additional capital and I went East, where I spent several months getting suitable contracts with financiers. While there I frequently encountered another Arkansas man doing some financing of his own. It was the same man I had seen carrying the mail sacks down at Texarkana. Harvey Couch."

In 1923, after some of his associates had lost faith in the El Dorado field, Colonel Barton acquired their interests and, in 1924, he affiliated with an Eastern corporation and organized the Natural Gas and Fuel Corporation, which supplied all the natural gas in the El Dorado territory and produced Smackover crude oil. In 1928, Colonel Barton consolidated his holdings with the Eastern corporation and the Arkansas Natural Gas Corporation was formed. He had hoped to retire from the business for a rest, but within a very few days he returned to it and acquired an interest in the Lion Oil Refining Company. On January 1, 1929, he became president of this company, which had a small refinery at El Dorado, two service stations and some Arkansas oil production. Since then he has increased his company's holdings until today they are well into the millions.

"I always approach the anniversary of the discovery of oil at El Dorado with a feeling of appreciation for having been permitted to be associated with its development," Colonel Barton said last night as he was interviewed for the first time about his complete career. "At no time during my operations in Arkansas have I ever felt the least doubt about the future of the oil industry in the state or the welfare of the state as a whole."

# I thinking of Drilling an Oil or Gas Well in Arkansas? State Geologist Can Tell You Best Place to Try Luck

By W. K. ROSE.

There's a lot of money involved in drilling oil and gas wells and folks who contemplate such a business venture want to know just what chances they have of bringing in a producer when they spud in a new well.

In answer to this, the State Geological Survey is preparing a map and prospectus showing the oil and gas producing areas of the state, together with possibilities of coming out on the cash side of the ledger in drilling wells in other sections.

Pointed out as the most favorable area for the accumulation of oil and gas is a section of Southwest Arkansas designated on the map as Area 1. The district includes Union, Miller, Lafayette and Columbia counties, and parts of Hempstead, Nevada, Ouachita, Calhoun, Bradley and Ashley counties. The prospectus points out that "this area contains all of the 15 oil-producing fields (aggregating about 49,365 acres) in the gulf coastal plain in Arkansas. It is underlain by both upper and lower cretaceous strata, which have produced all of the oil and gas found in the gulf coastal plain in Arkansas. The upper cretaceous formations are especially favored as they have produced at least 97 per cent of the oil, and very nearly 100 per cent of the gas, produced in southern Arkansas. The lower cretaceous formations have accounted for the remaining 3 per cent of the oil. The Nacatoch sand and Ozan formations, both of upper cretaceous age, are the most favored of the upper cretaceous group of formations, as the Nacatoch sand has produced about 47 per cent and the Ozan about 46 per cent of the oil, while the aggregate production by the Tokio-Woodbine and the upper cretaceous red beds has been about 4 per cent. Structural conditions favorable for the accumulation of oil and gas in commercial quantities (anticlines, domes, structural terraces and faulted zones) are known to be present."

## Area 2 Less Favorable.

Area 2, including counties in the lowland area of the gulf coastal plain in eastern Arkansas, is described as "somewhat less favorable, although shows of oil and gas have been reported." Counties included in this area are Mississippi, Crittenden, St. Francis, Lee, Monroe, Phillips, Arkansas, Lincoln, Desha Drew, Cleveland and Chicot, with parts of Craighead, Poinsett, Woodruff, Cross, Prairie, Jefferson, Dallas, Bradley and Ashe counties.

The prospectus states that this area is somewhat less favorable than Area 1, because basal upper cretaceous formations, which are present in area 1, are absent over the greater part of Area 2 and the lower cretaceous formations are wholly absent. Shows of oil and gas have been reported. Structural conditions favorable for the accumulation of oil and gas in commercial quantities not definitely known to be present.

The map lists counties extending in a northeasterly direction across the state in Area 3 which is divided into sections A, B, C and D, extending from the northeast corner of the state. The area includes Clay and Greene counties and parts of Sevier, Little River, Hempstead, Pike, Clark, Dallas, Hot Spring, Grant, Pulaski, Lonoke, Prairie, Woodruff, White, Jackson, Independence, Lawrence, Craighead and Randolph counties.

Indications in this section of the state are only slightly favorable for the accumulation of oil and gas, the report states. The upper part of the upper cretaceous group of formations are present in part of the area only and is relatively thin. The lower cretaceous formations are absent, it is stated.

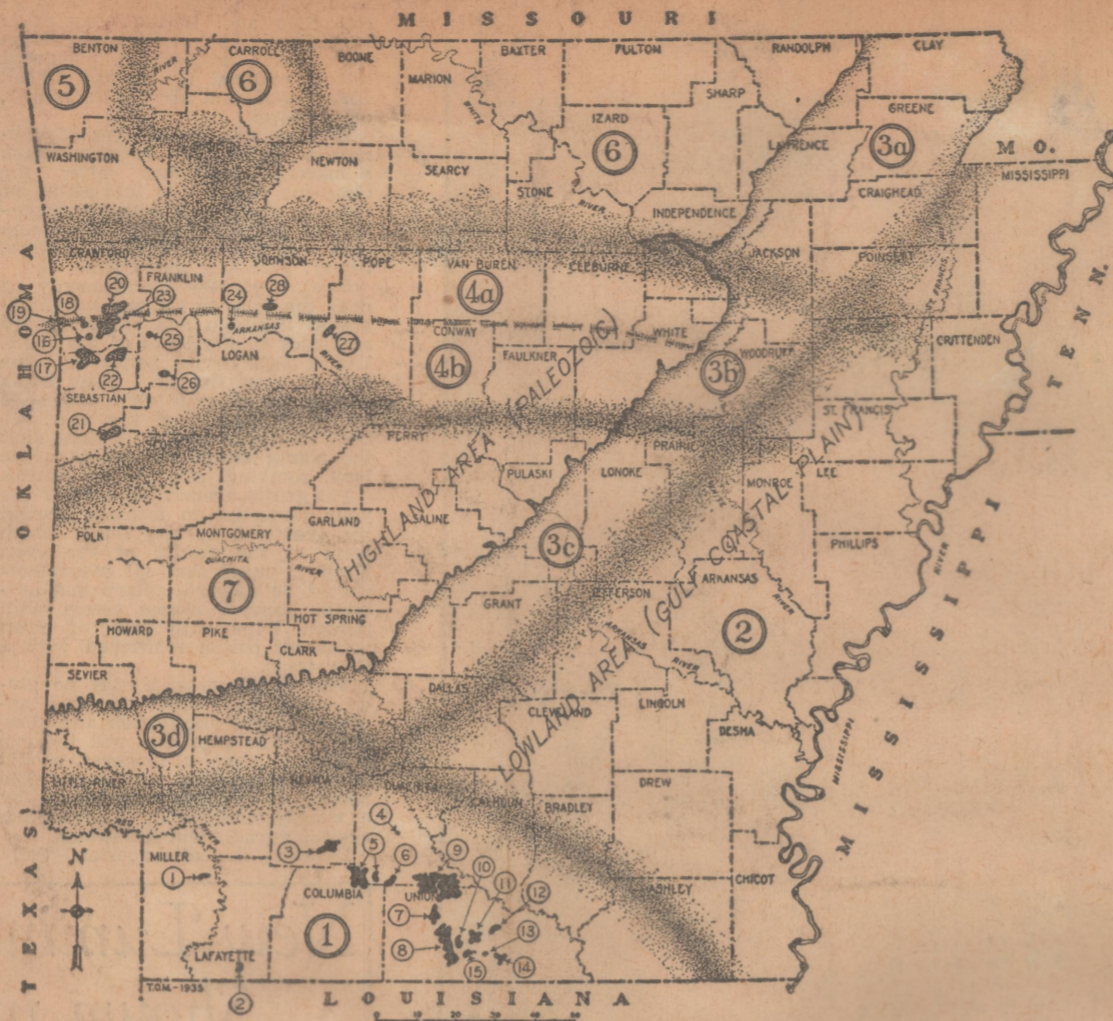
However, the report states that the prospects are better in the extreme southwest section of this area. The area is considered less favorable for the accumulation of oil or

gas than Areas 1 and 2, but more favorable than Areas 3 a, b and c. Both upper and lower cretaceous formations are exposed at the surface in parts of the area. Upper cretaceous formations exposed in southern part and lower cretaceous in northern part. Both groups of formations are relatively thin compared with their thicknesses in Area 1.

## North Central Section.

Area 4 is made up of counties in the north central section of the state, the group including parts of Crawford, Sebastian, Franklin, Logan, Johnson, Pope, Van Buren, Conway, Faulkner, Cleburne and White counties. Section A includes the northern part of this area. Of this, the report says:

"The majority of the anticlines and domes are favorable for the accumulation of gas. Area is one of gentle folding. Surface formations are Atoka of Pennsylvania age, or younger, and, in aggregate, they vary in total thickness from about 2,900 to 5,000 feet. Some possibility for the accumulation of oil under favorable structural conditions in formations lying beneath the Atoka formation, and testing below the Atoka should extend to the St.



The above map, prepared by the State Geological Survey, will provide prospective operators with information as to their chances of bringing in a producer when drilling for oil or gas in various sections of the state. The black spots in the southern counties represent producing wells in an area which is the most productive in the state. Numerous gas wells are shown in counties in the western part of the North Central Arkansas section. Section 7, embracing the Ouachita mountains in West Central Arkansas, is listed as the least encouraging section in which to drill. The report points out that in Pulaski and surrounding counties, indications are that formations are only slightly favorable to accumulation of oil and gas.

Peter sandstone. Contains Alma and Clarkville gas fields. Also a small field extending from Roland, Oklahoma, to Dora, Arkansas, which produces from the Hale formation." Section B forms the southern half of the group. The report states: "The majority of the anticlines and domes are favorable for the accumulation of gas. Area more steeply folded than Area 4 a. Formations lying beneath the Atoka believed to offer some chance for the accu-

mulation of oil, but possibility not as favorable as Area 4 a. The formations beneath the Atoka lie, for the most part, below a depth of 6,000 feet. Contains section 10, Masard Prairie, Shibley, Mansfield, Lavaca, Kibler-Williams, Vesta, Aetna, Coal Hill and Tate Island (Russellville) gas fields.

"The paleozoic formations of Areas 4 a and 4 b extend beneath the gulf coastal plain formations into

Area 3 b, and the chances for finding oil or gas in the covered paleozoic beds extended there are the same as in the eastern portions of Area 4 a, and 4 b, although it is impossible to locate accurately structural axes in paleozoic rocks which are buried beneath the gulf coastal plain formations."

Under favorable conditions, there is a good chance for small accumulations of gas under favorable

structural conditions in Area 5, composed of parts of Washington and Benton counties, the report states. The principal possible reservoir beds are the Sylamore sandstone. The greater part of the surface in the area is Boone limestone. Porous formations lying beneath this limestone may possibly produce small quantities of oil under favorably structural conditions, the report states.

Possibilities Remote. Area 6 includes Carroll and parts of Benton and Madison counties. The report states that in this area chances for the accumulation of oil or gas in commercial quantities remote. Surface formations are principally lower ordovician dolomites and limestone, which are underlain by rocks of Cambrian age, resting in granite. Results of prospecting have not been encouraging.

The paleozoic formations of Area 6 extend beneath the gulf coastal plain formations of Area 3 a, and the chances for finding oil or gas in the covered paleozoic beds extended there are the same as in the eastern part of Area 6.

Area 7, in central Arkansas, offers no reasonable chance for the accumulation of oil or gas in commercial quantities, the prospectus states. The section offers the intensely folded rocks of Ouachita mountains with rocks highly altered. The paleozoic formations of the area extend beneath the gulf coastal plain formations of other areas to the east and the chances for

finding oil or gas in the covered paleozoic beds extended there are the same as in Area 7, the report states.

The area includes Polk, Montgomery, Garland and Perry counties and parts of Scott, Yell, Sevier, Howard, Pike, Clark, Hot Spring, Faulkner, Pulaski and Saline counties.

## Board of Conservation Can Limit Drilling.

Attorney General Carl E. Bailey held yesterday that the state Board of Conservation has authority to limit the number of oil or gas wells that may be drilled in a given area, if proof is avail-

able that the restriction is necessary to prevent waste.

The opinion was given to J. S. Brooks of El Dorado, chairman of the Board of Conservation, who asked for an interpretation of Act 234 of 1933, particularly with respect to the board's authority to enforce rules and regulations which the act authorized it to make.

One of the regulations provides that not more than one well may be drilled on each 10 acres in any oil field. The opinion said the board has authority to make and enforce reasonable regulations and that a provision that the board will investigate any particular situation to determine whether the limitation is actually in the interest of conserving oil and gas and preventing waste makes the regulation reasonable. The opinion said it would be necessary for the board to prove that its restrictions are necessary.

## INCORPORATION MATTERS.

Arkansas-Texas Newspaper, Inc., of Texarkana filed notice of dissolution and surrender of its charter in the secretary of State's office yesterday.

Seismic Explorations, Inc., a Delaware corporation with headquarters at Houston, Tex., filed notice of entry into the state to make geological explorations for oil.

## Big Oil Pools Far Beneath Earth Surface

May 22, 1936

By HOWARD BLAKESLEE.  
(Associated Press Science Editor.)

Tulsa, Okla., May 21 (AP).—Mapping of buried shore lines, a new venture in oil prospecting which indicates untouched oil resources five miles below the earth's surface, was described at the International Petroleum Exposition here today.

Deepest American oil wells go down two miles. The new maps, charting the contours of more than 100 different seas which covered parts of what is now the United States from time to time in the last billion years, indicate untold oil resources still within the present two-mile drilling depth limit—and more deeper down.

This new mapping, originated at the University of Tulsa, was described by L. R. Laudon, professor of geology. He said the newest oil prospecting device, the man-made earthquake, has reached its limit. It will continue to reveal the "dome" oil bearing structures.

He said that the greatest resources are not revealed by the artificial quakes. Shore lines of the ancient seas were led by erosion with silt and debris. In them lived billions of marine animals. As these perished and fell into the mud, each left at least one tiny droplet of imperishable oil—today's petroleum. Subsequent ages buried these shores and turned the mud to stone. Wherever porous stone was formed the oil gathered in the "pools" of today.

## Identified by Fossils.

These ancient shores can be identified by the fossils that the drills bring up. Nearly 1,000 different kinds of these fossils are recorded at Tulsa. These dried-up sea beds tilt at all angles.

Beyond the present two-mile limit they may dip sometimes to 30,000 feet before reaching the "absolute bottom" for oil. This lowest limit is the granite rocks. Belief in the existence of 30,000-foot shores is based on discovery of deposits that deep in present day mountains which once were at sea bottom.

Geologists believe that between the Rockies and the Appalachians up to Canada there probably were more than 100 ancient seas.

## Rodessa Field Limitations Are Defined

Democrat 11-1-36

Two Tests Fail—Arkansas's Producer to Be Standardized.

Shreveport, La. —While a tabulation of findings had not been completed by the engineering sub-committee of the Rodessa operators committee, the 30-day period ending October 27, saw an improvement in bottom pressure conditions in the Louisiana side of the Rodessa field, preliminary checks of the data gathered over the 30-day period showed. This was attributed to the September 15 gas-oil ratio which limited oil wells to a 12,500-to-1 ratio and distillate wells to 25,000-to-1.

These data will also be embodied in the recommendations which the Rodessa operators' committee will make for a basis for the next gas-oil ratio for the Louisiana part of the field. A hearing on this is expected to be called some time early in November by Governor Richard W. Leche. The September 15 order, originally for only 30 days has been continued in force until another order is issued.

Meanwhile from an operating standpoint Rodessa had its oil producing limits apparently defined in two directions last week. In the northeast part of the field between two part of production but a quarter of a mile distant from each, Phillips Petroleum Company's No. 1 Wilbank, section 8-23n-15w, tested salt water at 6,055 feet in the Young horizon and will be plugged back in an effort to make a gasser in the Hill, Gloyd or Dees, the newly discovered Neugen sand of that part of the field just under the Hill not having appeared in this well.

On the north edge of the northwest part of the Cass county, Texas side, Rodessa's second definite failure was recorded when Magnolia Petroleum Company abandoned No. 1 J. J. Moore, John Collum Survey, at total depth of 6,051 feet. The Cass side, however, was extended 660 feet west in T. W. Norton's No. 2, J. T. Moore, William R. Meyers Survey, completed at 5,995 feet, flowing 10 barrels per hour through eighth-inch tubing choke.

Cass county again led in number of new locations securing 12 of the week's 15 newly projected tests. The three on the Louisiana side were all by the United in the northwest part of the Caddo parish side.

Hope of early Glen Rose production in the shallow Zwolle field, Sabine parish, was dimmed last week when A. H. Tarver's No. 3 Baker, section 36-8n-12w, tested 62 fourbals of salt water in 20 minutes at 6,178 feet. Another wildcat disappointment was W. J. Hunter's No. 1, Long-Bell, section 18-13n-9w, Red River parish, which bailed salt water at 3,734 feet after an oil show in 12 feet of sand. E. T. Oakes' No. 1 Patton, section 1-20n-5w, five miles northwest of Sugar Creek, Claiborne parish, that had an oil show in the Glen Rose at 5,076 feet, is ready to drill plug and test.

Benedum and Trees Oil Company is preparing to standardize No. 1 Grove, section 10-14-20, Nevada county, Ark., which showed 1,700 feet of oil when bailed at total depth of 2,287 feet after nine and five-eighths inch casing was cemented at 2,196 feet. Elevation is 353 feet.

High water and rain interfered last week with geophysical work in South Arkansas, Phillips Petroleum Company's unit working in Hempstead county, south of Fulton, having to suspend for several days. Root Petroleum Company's party doing detailed work around section 28-13-23, Hempstead county, has been sent to DeSoto parish, La. Ohio Oil Company's crew is still working in LaFayette county south of Bradley, and Standard of Louisiana and Standard of Louisiana and Stand oil and crews in that county. Phillips, Standard and Ohio have recently had crews in Columbia county and in Ouachita county.

Outside of Rodessa, the shallow Urania field, La Salle and Grant parishes, led North Louisiana in number of new oil wells with three pumpjacks. The Pine Island field Caddo parish, accounted for one small well and Union parish, a small gasser.

# COLONEL BARTON URGE

## Thinks States Should Make Only Levies

Predictions that the oil industry in Arkansas some day will be second only to agriculture were made last week at the annual convention of the Oil Dealers Association of the state by Col. T. H. Barton, president of the Lion Oil Refining Company, in a speech on "The Value of the Petroleum Industry of Arkansas."

"While south Arkansas has enjoyed the most direct growth and benefit from our production," Colonel Barton said, "the industry as a whole is far-reaching. Every town, every hamlet has its filling station with hundreds of roadside stations thrown in for good measure. There are many hundreds of bulk storage plants from which tank trucks radiate daily in all directions."

Continuing his speech, Colonel Barton said in part:

"From the farmer to the factory we depend, in some stage of our daily operation, on the oil industry for fuel and lubrication. Our products are on the shelves of the druggist for medicinal use—it even grows new hair and kills our insects. It is employed very largely in paving our streets and highways and in roofing our buildings. It seals our jelly—it forms the base for our printers' ink and is used in the manufacture of our rubber goods."

"In fact I would say that petroleum products are second only to lumber and steel in general public utility value."

"Crude oil was first discovered in Union county in 1921 near El Dorado, and the ensuing development, bringing us up to the present, has been confined almost entirely to the south-central part of our state. The discovery of the Smackover oil field brought to Arkansas the distinction of having the largest oil field in the world, up to that time. In later years new producing sands and several additional sizeable pools have been found and developed in that area. From 1921 our state has produced nearly one-half billion barrels of crude oil."

### Extensive Effects of Oil Industry in State Cited.

"Since so little is generally understood of the labor, expense and investment incident to the production of a barrel of crude oil, its processing into finished products and their distribution to the public—I can best give you an idea of the part our industry has taken in the upbuilding of the state by taking you step by step through our procedure:

"First—Petroleum geologists and technical men visit almost every prospective acre, developing information to indicate the localities most likely to produce crude oil. Many thousands of dollars are invested there in wages, services and permits."

"Second—The land is leased from the farmer and portions of his royalty purchased at values ranging from \$1 to several thousand dollars per acre."

"Third—Drilling operations begin, each well costing from \$15,000 to \$75,000, depending upon the depth and character of formations encountered. And let me add here that although there are only 2,677 wells producing today in Arkansas, approximately 7,000 have been drilled."

"Fourth—When production is secured, pipe line systems involving hundreds of miles of pipe and large quantities of steel storage tanks, are needed for transportation of the crude oil to markets. In this operation, sizeable expenditures are made for right-of-way and millions of dollars spent for iron and steel products."

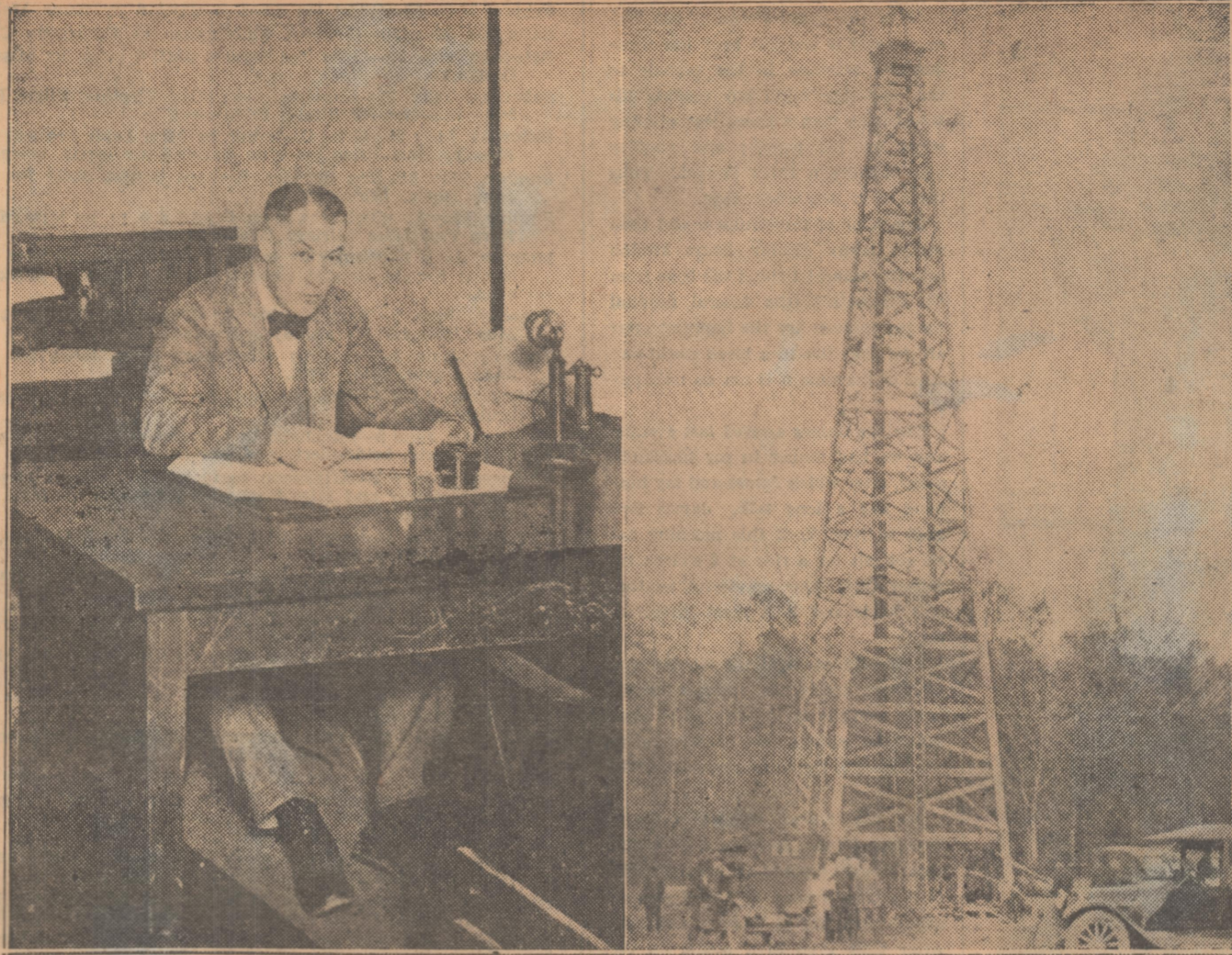
"Fifth—Crude oil then is taken over by the refiner, six of which are now operating in Arkansas (three more being in the state). Where millions in addition to the original investment are required to process the crude into finished products."

"Sixth—The finished products are then transported by rail to chains of bulk storage tanks and retail filling stations where again more millions are invested in real estate and personal property in order that these products may be committed to the consumer for destruction, surrounded by more free service than is enjoyed in the purchase of any other commodity known to man."

### \$6,500,000 Paid Annually In Wages in Industry.

"Throughout each of these operations a large amount of skilled and unskilled labor is required to carry on. The estimated annual pay roll for those em-

## PIONEER IN ARKANSAS PETROLEUM INDUSTRY



Col. T. H. Barton is shown here at his desk in El Dorado shortly after oil was discovered near there. At the right is one of the early wells owned by his company in the Smackover field.

ployed directly in south Arkansas' oil operations, to say nothing of distribution, is \$6,500,000 paid to 4,500 people. Applying the formula of one wage earner to a family of five, 22,500 people living within that section of the state, are directly dependent upon these operations for a livelihood."

"South Arkansas's refiners, too, are among the best customers of our railroad systems. The estimated wholesale value of the refined products of the Arkansas refining group is \$15,000,000 per year and the approximate freight paid to railroads on these products is \$4,000,000—although, as you realize, our roads are required to make a division of a portion of this revenue because of intermediate switching to other lines and far-off destinations located on other roads. It is said that one of south

Arkansas's refiners is the largest rail shipper within the state. The sale of our petroleum products throughout the United States and even foreign countries reflects favorably for Arkansas, as the quality of these home products is unsurpassed."

"Let us not overlook the important place in our welfare occupied by our refiners. Were it not for these processing plants, all of Arkansas's crude oil would have moved through our network of pipe lines to the Gulf coast market. This would have eliminated more than half the labor required, our railroads would have been denied 40,000 to 50,000 cars of outbound freight each year to say nothing of inbound freight. In fact the social structure of south Arkansas would have been so completely changed with refiners eliminated that the effect can hardly be conceived."

### Attention Called To New Discovery Well.

"It is fitting that I call attention at this point to the new discovery well of the Phillips Petroleum Company in south Ouachita county some weeks ago,

which has proved the contention of several of our leading men that deeper pay horizons are available, containing untold oil and gas resources. This well from present indications, will open up gas and oil production in an area some three miles wide and five miles long. Geological information would further indicate that there are several additional favorable areas, containing this same deep lime formation, promising still more activity. It can be conservatively estimated that \$5,000,000 will be spent in the south Arkansas territory in prospecting and new development in 1936."

"In the interest of future progress of this great industry in Arkansas, as well as the protection of what we already have, I now come to the tax problem. If the full utility of these natural resources is to be enjoyed by society, our

progression must be encouraged and not stamped into oblivion by the tax collector."

Taxes levied on this industry and its products in 1935 exceeded the estimated value of all crude oil produced in the United States for the third consecutive year, the value of that crude oil being \$975,000,000—whereas, the tax bill on the industry was \$1,125,000,000. The value of crude oil has increased 19.7

per cent since 1921, while tax costs have increased about 935 per cent.

### Enormous State Taxes Paid by Oil Industry.

"Now let's look at the Arkansas tax picture as it affects this industry."

"The following is an analysis of receipts of the state treasurer's office for the year 1935:

Type of Tax	Amount	Pct. of Total
Gasoline excise tax and inspection fees	\$8,283,790.66	56.14
Petroleum severance tax	279,837.97	1.90
Auto licenses and fees	2,438,809.76	16.53
Auto drivers licenses	89,035.50	.60
State sales tax	1,190,796.79	8.07
Cigar and cigarette taxes and permits	1,079,798.48	7.32
Alcoholic beverage taxes and permits	847,757.06	5.74
State income tax	353,079.77	2.39
Miscellaneous taxes	192,929.76	1.31
<b>Total (Unapportioned)</b>	<b>\$14,755,935.75</b>	<b>100.00</b>
Ad valorem tax	3,886,239.50	46.68
Franchise tax	315,608.69	3.79
Toll bridge collections	479,639.36	5.76
All other income (mostly federal funds)	3,643,131.63	43.77
<b>Total (Apportioned)</b>	<b>\$8,324,619.18</b>	<b>100.00</b>

"From the above analysis, it can be seen that the motorist of Arkansas supplies more than 75 per cent of the general tax funds of the state. Most of the remainder is made up from taxes on tobacco and alcoholic beverages, along with the retail sales tax."

"In Arkansas the gasoline tax alone amounts to 7 1/2 cents per gallon (6 1/2 cents state, plus one cent federal). This is approximately 37 1/2 per cent of the retail sales price on gasoline. The average motorist pays 75 cents in gasoline tax every time his tank is filled. This is certainly a glaring example of tax discrimination."

"The petroleum industry has never objected to a reasonable state gasoline tax because it recognizes that the benefits to the public more than offset the disadvantage of this tax so long as the revenues are used exclusively for highways. The industry has found, however, that excessively high gasoline taxes encourage tax evasion and gasoline bootlegging, which in turn reduces the amount of revenue collected by the government and brings about cut-throat competition, price wars, and unfair trade practices. In order to eliminate these abuses, the petroleum industry has spent a great deal of time and money in helping states to collect the

gasoline tax. In many cases it has loaned its own employes to the state without cost to the public; in other cases, it has financed special work by state employes. In fact, this desire to co-operate gave rise to the organization of the Oil Dealers Association of Arkansas, which is responsible for this

state-wide meeting in which we are taking part today."

"In short, the petroleum industry has recognized that state gasoline taxation is sound in principle. It has accepted this tax with the burdens which have made the work in the marketing branch much more complicated."

### Finds Objection In Federal Gasoline Taxes.

"Just a word now about the federal gasoline tax. The federal government collects a tax of one cent per gallon on gasoline. In 1934, this tax yielded \$170,000,000. This tax can not be justified on the same grounds as a state gasoline tax. It is not a benefit tax, because its revenues are not earmarked for highways. They are used for general governmental purposes. Because this is true, the federal gasoline tax is at odds with the fundamental theory of gasoline taxation. This tax was originally adopted as a temporary measure. The chief argument advanced for imposing it was that it was needed to make up for the drop-off in collections from the income tax and other established sources of revenue during the depression. That it was intended to be

only a temporary tax is brought out in statements made by both houses of Congress."

"The industry as a whole, and the Arkansas Oil Dealers Association must continue in the future as in the past, to work hammer and tong for the repeal of the federal gasoline tax and leave this field of taxation to the states."

### Pipe Line Will Carry Oil to River Barges

El Dorado—Officials of the Lion Oil Refining Company and the Root Refining Company announced yesterday that construction would start soon on a pipe line to carry oil and gasoline to the Ouachita river for shipment by barge to distribution points."

The line is to be of three-inch pipe and from 13 to 15 miles long. Its capacity will be 45,000,000 gallons a year and the cost is estimated at \$60,000. It will be the joint property of the two companies."

The line is to connect with refineries of both companies here and the terminus will be at the Ouachita river near Champagnolle. Information as to the line was obtained in statements by T. M. Martin, vice president of the Lion Company, and D. P. Hamilton, president of the Root Company."

## Oil Firms To Build Pipe Line

Special to the Gazette. 8-14-36

El Dorado, Aug. 13.—Construction of a pipe line for transportation of oil and gasoline to the Ouachita river for shipment by barges to distribution points is expected to be started soon by the Lion Oil Refining Company and the Root Refining Company, officials of the two companies announced this morning.

The pipe line, according to T. M. Martin, vice president of the Lion company, and D. P. Hamilton, president of the Root company, will connect refineries of both companies in El Dorado and will have a terminus at the Ouachita river near Champagnolle.

The line will be a three inch welded pipe and will be 13 to 15 miles long and will have a capacity of 45,000,000 gallons a year. Cost of the line is expected to be approximately \$60,000.

The pipe will be used to transport gasoline and light oils to the river where two 10,000-barrel storage tanks will be installed. Products of the two companies will be shipped to distribution points along the Ohio and Mississippi rivers and the Gulf Coast.

The pipe line will be a joint project of the two companies and may be operated through a jointly owned subsidiary company. It has been estimated by traffic managers of the two companies that the pipe line will mean a saving of several thousand dollars a month to the two companies in transportation charges.



# ARK-LA-TEX PETROLEUM AREA PRODUCERS

Gaz. 1-3-37



This map of the Ark-La-Tex petroleum area, made as the year 1936 was closing, shows the new field discoveries and the deep pay horizons proven in the old fields.

## Nearly 700 Brought In During 1936

Gazette 1-3-37

Special to the Gazette.

Shreveport, La., Jan. 2.—The year 1936 recorded many important developments, including the completion of approximately 700 wells, in the Ark-La-Tex area, with Shreveport as the commercial and industrial center of these petroleum activities. The last major development of the year was the drill-stem test of the Henderson No. 1 of Holcomb & Thompson and Flesch & Hootkins in the R. Bennington survey of Marion county, Texas, about three miles north of Jefferson, which showed estimated 25,000,000 to 50,000,000 cubic feet of gas daily the gas being highly distillate-saturated, indicating a possible 14-mile extension southwest for the Rodessa producing area.

Most of the several hundred wells were in the Rodessa field, extending from Caddo parish, Louisiana, into Cass county, Texas, but many of the completions resulted from drilling activities in other districts which were stimulated largely by the Rodessa production.

**New Fields Opened.**  
A review of the year's results reveals that there were three new fields seemingly opened in two east Texas border counties, Shelby and Panola. The review also shows that four new structures were proven and deeper pay levels were uncovered in six fields in north Louisiana, and three new producing areas were found in south Arkansas.

The Travis Peak and the Glen Rose formations divided honors in the matter of new discoveries in Louisiana. The Glen Rose before the advent of 1936 was producing in the Rodessa field, but the initial appearance of the Travis Peak formation as a productive horizon was recorded during 1936. The Travis Peak is the deepest producing level in north Louisiana.

**Lincoln Parish.**  
The Gardner No. 1 in section 10-17-14, Lincoln parish, drilled by Lide, Greer & Marr, give the first production from the Travis Peak. The discovery was made at 6,576 feet, a big gas distillate producer. It is located five-eighths of a mile north of Fowler No. 1 of the same operators, which was completed as a gasser from the Glen Rose formation at 5,300 feet. It opened a new structure, also in 1936.

**Bienville Parish.**  
Bienville parish, adjoining Lincoln parish, also saw a new structure proven through the completion of Lide, Greer & Marr's Davis Lumber Company No. 1, in section 13-16-5. It was a big saturated gasser, completed at 5,885 feet. In an effort to get oil production the operators are drilling on a 7,300-foot test in the same area.

**Webster Parish.**  
Another important north Louisiana discovery was made by J. P. Evans in Crichton No. 1, section 36-18-9, Webster parish. It was completed as a gas-distillate producer from the Glen Rose, opening a new structure, followed by the completion of two additional wells. The Standard is searching for oil production by drilling a well on the southwest flank.

**Caddo Parish.**  
A new producing level was added in the shallow Blanchard area of Caddo parish from the Travis Peak with the completion of the United Gas Public Service Company's Wheeler A-1, at 5,907 feet in 16-18-16. This company is among the large Rodessa operators.

**Bossier Parish.**  
In the Sligo field of Bossier parish two oilers were completed on the southwest flank from basal Glen Rose slightly below 5,200 feet. These wells also were drilled by the United Gas Public Service Company. Three additional tests are being drilled to this zone, and, because of the encouraging results already obtained as part of the 1936 developments, a large drilling campaign is in prospect during the new year.

In the Cotton Valley field of Webster parish the Ohio Oil Company uncovered Travis Peak oil production in its Holloway No. 6, in section 23-21-10, and one additional producer has been recorded from the same level. A deeper pay zone by the same interests seems to have been opened on the southwest flank in Bodcaw No. 1. The latter well set casing after coring well saturated sand from 8,159-8,184 feet depth.

**Sabine Parish.**  
In Sabine parish, to the south of Shreveport, Whitney No. 1 of Whitehurst & Cox in 8-9-13, it is indicated, uncovered a new structure or a deep pay horizon in the Converse field at 5,503 feet in the Glen Rose. It came in as a big gasser with oil spray.

Bienville parish also recorded the opening of a deeper pay level in the basal Glen Rose with the completion of the DeSoto Oil and Gas Company's Dunn & Olson No. 1, in the Lake Bisteneau area, as a gas distillate producer, in section 15-16-10. It was completed at a depth of 5,236 feet.

Coming as a Christmas present for the operators was the completion of Patton No. 2 of E. T. ("Rebel") Oakes, H. D. Easton et als. in section 1-20-5, Claiborne parish. It was completed in the basal Glen Rose at 5,379 feet, and opened a new oil producing area. Many citizens of Louisiana and Arkansas have interests in this development. The well is about six miles northeast of the Sugar Creek field.

**Texas Completions.**  
In Shelby county, Texas, A. C. Glasell and associates completed two gas distillate wells, Frost No. 1 in the Mary Potts survey and Williamson No. 1 in the Coleman survey, opening a new area from the Glen Rose slightly below 5,600 feet. These producers are about six miles northeast of Carthage.

The Magnolia Petroleum Company completed a wet gasser, Hull No. 1, in the Applewhite survey, at 5,960 feet in the basal Glen Rose, about three miles east of Carthage. It apparently opened an additional structure.

The Pickering Lumber Company No. 1 of H. A. Stebbinger and associates in the C. E. Henry survey was completed as a gasser with oil spray from the Glen Rose. The same interests are rigging up for a new test in this area. Other tests also are said to be in prospect.

The Henderson No. 1 of Holcomb & Thomason and Flesch & Hootkins in the R. Bennington survey in Marion county, Texas, which on a drill stem test Wednesday showed an estimate of 25,000,000 to 50,000,000 feet of gas daily, the gas being highly distillate saturated, may be a new structure, but many operators believe it is an extension of Rodessa, it being 14 miles from Rodessa production in Cass county. The drill stem test was made from 5,960-5,990 feet, where three cores showed stains of oil and gas. The formation logged last Tuesday from 5,980-5,990 feet, which showed best saturation, is believed to have corresponded to Gloyd sand, second Rodessa pay zone, while other shows were from the Hill section. Although definitely a large gas distillate producer from present depth, operators announced Wednesday that the hole would be cored deeper in search of oil from the Dees and Young horizons, two lower Rodessa pay zones. This test is about three miles north of Jefferson.

In addition to the new producing areas discovered and the deeper pay levels added during the year 1936, many additional deep tests are being drilled in the Ark-La-Tex area, and others are in prospect and planned, and the year 1937 promises to witness many more important developments.

Three developments commanded major attention of the petroleum industry in the north Louisiana-East Texas-south Arkansas territory during the week just closed—the drill-stem testing of a large gas-distillate well three miles north of Jefferson in Marion county, Texas, which may be an extension of the Rodessa field, and the opening of deeper pay horizons in the Cotton Valley field of Webster parish, Louisiana, and the Lake Bisteneau area of Bienville parish, Louisiana.

Important operations also were recorded in Claiborne and Caddo parishes, and in southern Arkansas and eastern Texas counties. In addition, many other wells were drilling and in contemplation, giving the advent of the New Year a strong touch of encouragement.

The test near Jefferson was made by Holcomb & Thomason and Flesch & Hootkins in their Henderson No. 1 in the R. Bennington survey. It showed highly distillate-saturated gas estimated at between 25,000,000 and 50,000,000 cubic feet, from depth of 5,960-5,990 feet, believed to be from the Gloyd & Hill sections, the upper two Rodessa pay horizons. The operators immediately arranged to go deeper with coring in search of oil, having hope of obtaining oil from the Dees or Young, two lower Rodessa pay zones.

Being located north of the Rodessa fault, the well is believed by many to be an extension of Rodessa, which field is now about 16 miles in length, about half the proven limits being in Caddo parish, Louisiana, and the other half in Cass county, Texas. Soon after the Rodessa field was discovered the fault was mapped to Jefferson, Tex., by shooting crews. Although many believe the Henderson well a Rodessa extension, others consider that it opens an entirely new pool. It is commanding widespread attention.

The Ohio Oil Company, which several weeks ago opened Travis peak production the Cotton Valley field in Webster parish, set casings in its Bodcaw No. 1, Section 23-21-10, after coring saturated oil sand from 8,159-8,184 feet. Promise is given of the opening of an oil zone in the field, from the lower Marine section, below Travis peak, the present deepest producing level in that area. This also is commanding much attention.

### Deeper Pay Horizon Looms.

Deeper pay horizon also looms in the Lake Bisteneau area in Bienville parish, in which the DeSoto Oil and Gas Company opened a new level from basal Glen Rose when it completed its Dunn & Olson well No. 1 in Section 15-16-10, at 5,236 feet. The well made an estimated 20,000,000 cubic feet of distillate-saturated gas. Later the company was retesting the well after lowering tubing. In this same small area some years ago several small gas wells were completed.

The Triangle Drilling Company recently spudded in below 1,100 feet in Skannal I—No. 1, in Section 22-17-12, in the Sligo district of Bossier parish. It offsets to the north the second oiler recently completed in this district by the United Gas Public Service Company, which averaged 1,000 barrels daily on half-inch choke last week. Offsetting the Triangle's Skannal well to the north is Freedman No. 1 of the United Gas Public Service Company, spudded in Section 15-17-12. Oil pay was found slightly below 5,200 feet in Glen Rose.

The Gulf Refining Corporation's Hatcher No. 1, Section 11-17-15, Caddo parish, which is a short distance west of the Shreveport city limits, is drilling below 7,880 feet.

In Richland parish, the Gulf Refining Corporation's deep test at Rhymes No. 15, Section 32-17-6, is drilling below 8,478 feet. This is in a gas area.

In Bienville parish, the Texas Seaboard Oil Company's McGee No. 1 in Section 3-16-6, a Travis peak test near Bear Creek, was drilling ahead below 7,120 feet. Also in Bienville parish, Smalley No. 1 of Lide, Greer & Marr, in 13-16-5, also a Travis peak test, was below 5,590 feet. It is south of their Glen Rose gasser which opened a new structure.

### May Pull Patton 2 Tubing.

In Claiborne parish, Patton No. 2 on E. T. ("Rebel") Oakes, H. D. Easton and associates, which recently opened a new producing area, continued to flow this week, averaging about eight barrels hourly on 11-32 inch choke. The

well is in Section 1-20-5. It is bottomed at 5,379 feet in basal Glen Rose. The operators may pull tubing and install liner on an attempt to increase the well's flow. The discovery made by this completion commanded widespread attention. Many persons in this territory, especially in north Louisiana and in Arkansas, are interested in the development. Oakes is a former big league baseball player.

The Standard Oil Company's Pickering No. 1 in Section 2-17-9, 1 1-2 miles southwest of production in the Sibley gas-distillate field of Webster parish, is drilling below 5,525 feet, due to reach the level from which three producers have been completed in that area within the next 40 feet. Some oil and gas saturation were found in upper sections of the Glen Rose in this Standard company well.

In W. F. Lacy's Lewis No. 1 well in the H. Holbert survey, a mile westward extension of the Rodessa producing limits in Cass county, Texas, preparations were made to set casing after logging saturation to 6,052 feet. Half a mile outside of production in this same area, the Eastern Texas Production Company junked and abandoned its

Belote No. 1, in the Charles Ames survey, at 5,980 feet. The operators lost core barrel.

The Eastern Shrevetex Corporation this week was moving materials for beginning a test, proposed for 5,500 feet, in the J. S. Powell survey. The location is three miles north of Waskom, Harrison county, Texas, on a 6,000-acre block of acreage. The test must spud by tomorrow. It is known as No. 1 George Helms well.

The second producer was added this week to the new gas distillate field northeast of Carthage, Panola county, Texas, with the completion of the Williamson No. 1 of Glassell & Glassell in the Coleman survey. It is estimated 20,000,000 to 40,000,000 cubic feet of wet gas, from 5,685 feet. It is 400 feet west of the same operators' Frost No. 1 discovery well.

### Petroleum 'Washed' in Effort To Secure Better Fuels.

New York, Dec. 28 (AP).—Two Pennsylvania State College professors told the American Chemical Society today how petroleum was being "washed" in an effort to find new and better fuels for aviation engines and motor cars. Prof. Merrell R. Fenske and Dr. K. A. Varteressian said the "washing" was done to eliminate undesirable substance in gasoline. It is done by solvent extraction in place of fractional distillation.

The society, opening a week's symposium, was assured in a review of 1936, that the United States was outstripping the world in the development of synthetic products.

Among them were included synthetic resins to make a new type of contact eye lenses; a new type of insulin to make diabetes treatment more effective; a new non-poisonous, highly antiseptic type of iodine; theelin, one of the two sex hormones responsible for female characteristics; and a desensitizer to help kill pain during teeth drilling.

## Banner Year For Oil Industry Seen

Special to the Gazette.

El Dorado, Jan. 3.—Col. T. H. Barton of El Dorado, president of the Lion Oil Refining Co. expects 1937 to be a banner year in the oil industry, he said in a statement here today. With this industry as a barometer, indications are that there will be a return of prosperity to the country, he said. His statement follows:

"Having just experienced a year of marked improvement, with consumption on the upward trend, storage below normal levels and general conditions well established, the oil industry may be said to be entering 1937 in the best statistical position in its history.

"Intelligent co-operation within the industry itself and a close and constant alliance with the Bureau of Mines in Washington have played an important part in the progress of the past 12 months, with the result that crude oil production has been brought more nearly to a level with manufacturing demand than ever before.

"At the same time, improvements in the processes of refining have enabled that end of the industry to continue to sell its products at a lower relative average than most basic commodities, despite the rising tendency in the general price structure of the nation.

"Due to its fair treatment of employes and the high level of wages, the oil industry, in comparison with many other industries, has suffered little from labor disturbances during the past year. In estimating the progress the industry will make in 1937, the importance of this factor should not be overlooked.

"Many oil companies will go into the storage period with the smallest stocks ever known, and with increased demand and rising costs, occasioned by severe proration, it is reasonable to believe that 1937 will witness a period of higher prices for crude.

"While extensive explorations for new oil pools are under way at this time, it is doubtful if any comparable to the prolific East Texas field, discovered in 1932, will be found in the present future to seriously disturb the balance of the industry.

"Asphalt, one of the most important by-products of petroleum, enjoys an unusually heavy demand during the past year, and it is anticipated that the requirements for 1937 will be even greater.

"Taking all the facts into consideration, there appeared justification for the belief that 1937 should be a banner year in the oil industry; and, if the industry may be looked upon as a barometer, that it indicates the return of prosperity to our country."

# Vast Increase in State Resources Revealed in

## \$87,000,000

## Value Placed On Resources

## Production Brings Big Tax Income Annually to Government.

## Survey Is Favored

## Planning Board Urges Fund to Continue Exploration.

Arkansas's mineral products increased in value from \$1,500,000 in 1880 to \$87,000,000 in 1935, and these products paid \$19,000,000 in taxes to state, counties and cities during the 10-year period 1922 to 1931, inclusive, according to facts revealed in the annual report of the State Planning Board.

This income to the tax units, amounting to about \$1,900,000 annually, was approximately one-tenth of the state's annual income. More than 8,000 people were given employment in the mineral industries during the last year, receiving \$8,210,000 in salaries.

The state has been and will probably continue to be primarily a producer of fuel mineral, the production of which amounted to \$372,042,000 in the 14-year period between 1921 and 1934 inclusive. However, the value of metallic minerals amounted to \$36,213,639 for the 35-year period between 1880 and 1934. Of this sum bauxite used in the manufacture of metallic aluminum represents 72.2 per cent of the total; zinc, 14.6 per cent; manganese and magniferous ore 8.9 per cent; lead, 0.6 per cent, and quicksilver, antimony, iron and silver ores 3.7 per cent.

The report continues:

**Variety of Minerals.**  
"Since the character of minerals found in any given area is dependent on the types of the rocks from which the minerals are derived, Arkansas is particularly fortunate in possessing the broad diversity of rock types which have been described, as it is this diversity which is responsible for the variety of minerals found.

"In the lowland (Gulf Coastal Plain) portion of the state are found the fuel minerals: oil, natural gas, and lignite; and the non-metallic minerals: clay, marl, chalk, fuller's earth, sand and gravel. No metallic minerals are present in important amounts.

"In the highland (Paloozoic) region of Arkansas are found the fuel minerals: coal and natural gas; the metallic minerals, the more important of which are: quicksilver, zinc, lead, manganese and antimony; and the non-metallic minerals: limestone, marble, dolomite, glass sand, sand and gravel, whetstone rock, shale, and slate.

"The crystalline or igneous rocks, although of small areal extent, have been and are the source of important minerals. These are bauxite, syenite, or "granite," titanium and diamonds."

The report suggests that the minerals most promising for exploration and development at the present demand and prices are petroleum, especially in the southern part of the state, quicksilver, bauxite, bentonite, and fuller's earth. Minerals that bid fair to yield profits, but development of which at the present demand and price is dependent on the character and location of the deposits, are: coal, lignite, antimony, titanium, asphalt, clay, diamonds, gypsum, limestone, phosphate, tripoli, barite, slate, lead, silver, manganese, bentonite, and fuller's earth.

## Many Minerals Found in Arkansas



This map prepared by the State Planning Board, shows the variety of minerals found in Arkansas.

### Favor Survey.

"A state geological survey may render great assistance to industry by leading the way in basic research to the development of new mineral industries. Although it is true that the development of many of our mineral preserves is at present marginal as to profits, the fact remains that the profits in the mineral industry are determined by present methods of extraction, preparation, and use. If researches are made into the character of our various clay, bentonite, and fuller's earth deposits, it is not improbable that certain new and unknown qualities in these earths will be discovered which may, in turn, increase the value of the raw material and the profits to be realized from its production. This also applies to research in the shales and slates, limestones and dolomites. Researches in Illinois on the siliceous limestones resulted in the development of a rock wool industry there. Coal researches as to the chemical character of Arkansas coals may be of substantial value to the coal producers. Researches into petroleum production, the study of such items as flowage through oil sands, sub-surface structure, and the chemical and paleontological character of well cuttings, will be of unquestionable value."

The report makes the following recommendations relative to the development of the mineral resources of the state.

1. The legislature should provide sufficient funds for the state geological survey to carry out its program of exploration and inventory of the mineral resources of the state. This has not been done heretofore, but is very necessary in view of the need "for the development of all wealth-creating resources within the state."

2. Especial study of the state's petroleum resources because of their importance as a source of revenue, employment and wealth.

3. Investigations should be accompanied by technological research which has for its purpose the fullest co-operation with industry in working out the technical problems in developing the mineral resources.

## State Mineral Output Value

Gazette 1-10-37

# \$15,204,865

Jan 10, 1937

Dr. G. C. Branner, state geologist, reported to Governor Futrell yesterday that minerals produced in Arkansas in 1935 by 274 operators were valued at \$15,204,865.06.

The operators were engaged in mining or producing 17 different mineral products and employed 8,025 persons during 1935. The producers included 110, or 40.1 per cent of the total, engaged in coal mining; 83, or 30.3 per cent, were sand and gravel producers, and 46, or 16.8 per cent, were engaged in oil or natural gas production. All other groups totaled 35, or 12.8 per cent.

Although the oil and natural gas industry employed only 2,036 persons, 16.8 per cent of the total employed in mineral industries, the products sold by such producers were valued at \$7,824,860.55, or 51 per cent of the total valuation of all mineral products.

The information was contained in a letter transmitting to the governor a directory of mineral producers, compiled by the Geological Department from severance tax reports filed with the state Revenue Department and from questionnaires sent to producers.

The letter said such a directory had been in demand by consumers of mineral products, prospectors, chambers of commerce, trade associations and other groups. The bulletin contains 39 mimeographed pages.

### Annual Reports Asks More Funds to Expand Work.

In his annual report Mr. Branner reviewed accomplishments of the department and discussed projects outlined for the future. He asked for an appropriation of \$84,500 for each of the next two fiscal years.

Details of the budget request were: Administration salaries and routine office expense, including provision for severance tax agent, \$26,000; salaries and field expenses of field workers, \$22,000; publication of reports and miscellaneous items, \$13,000; topographic mapping, in which the United States Geological Survey will co-operate on a 50-50 basis, \$15,000; stream gauging, with the same co-operative arrangement, \$7,500; sinking fund, \$1,000.

Mr. Branner said that such a budget would make possible employment of an assistant state geologist, maintenance of three geological parties in the field, and adequate office assistance to prepare and publish reports and carry on necessary routine service. He said that it would provide for co-operation with the Geological Survey on a 17-year plan to complete the topographic mapping of the state and for a comprehensive stream measurement program.

reflect

# ARKANSAS MINERALS SUBJECT OF REPORT BY PLANNING BOARD

January 10, 1937.

Prospects for exploration and development of petroleum, gas, quicksilver, bauxite, bentonite and fuller's earth are good at the present demand and price, the state Planning Board reports in a survey of mineral resources of Arkansas.

Minerals promising for exploration, but the development of which at present price and demand depends largely on character and location of deposit, are coal, lignite, antimony, titanium, asphalt, clay, diamonds, gypsum, limestone (in central Arkansas), phosphate, tripoli, barite, slate, lead, silver, manganese (particularly manganese carbonate), bentonite and fuller's earth.

The board recommended in its report that the state Geological Survey be provided with sufficient funds to permit the fullest exploration and inventory possible of the mineral resources of the state and the publication or reports on them.

Special study should be devoted to the investigation and development of the state's petroleum resources, the board suggested on account of their predominating importance as a source of revenue, employment and wealth.

The board recommends that investigations be accompanied by basic technical research which has for its objective the fullest co-operation with industry in the working out of technical problems incidental to the development of mineral resources.

The Planning Board report said, in part:

"Let us consider for a moment the importance of the mineral industries to state, county and city governments. Tax income immediately traceable to this source are the severance tax, the sand and gravel tax, the oil and gas well permit fee, the corporation tax on mineral industries, and real and personal property taxes applied to such industries.

"It is estimated that, during the 10-year period from 1922 to 1931, inclusive, the mineral industries paid to state, county and city governments approximately \$19,000,000. This is an average of about \$1,900,000 per year, or, roughly, a sum equivalent to about 10 per cent of the total state income. This is a remarkable record for an agricultural state. It should be remembered, however, that about 90 per cent of the above amounts were paid by the oil industry.

"The number of persons employed by the mineral industries in 1935 was 8,025. The wages paid them were about \$8,210,000, and this furnished support for about 40,000 persons.

"It is probably fair to assume that at least one-half of the total income received from the sale of mineral products in the state is expended within its borders. It is, therefore, evident that mineral production within the state is beneficial to the state, county, and city governments, to employment, railroading, merchandising and banking.

"Deposits of chalk and marl in southwestern Arkansas are of sufficient quality and quantity to furnish any possible demand for lime for the manufacture of Portland cement, quicklime or hydrate, or agricultural lime.

"The clay deposits of Arkansas are very widely distributed and are present in fair variety. Research into the utilization of the clays would very probably prove to be a fertile field of endeavor. Of the many thousands of square miles of clay lands in the state, there has been little systematic study and, if such were undertaken, it is probable that clays will be found which would justify the building up of several new clay-using industries.

"Deposits of glass sand (silica sand of high purity) in northern Arkansas are of practically unlimited extent. Only one plant is shipping this material at the present time.

"The limestone and dolomite areas of northern Arkansas are also of great extent, and certain of the limestone beds are of high purity. Several of the marbles, or crystalline limestones of Arkansas possess unusual beauty, and their future development will depend largely on how well the trade is made familiar with them. The black marbles of northern Arkansas are unique in the United States and have a distinct price advantage over imported black marbles in this country, except in the Atlantic and Pacific seaboard states and in the states immediately east of the Pacific coast.

"The marketing of mineral waters of Arkansas is largely a matter of publicity and advertising. They are obtainable, as is well known, in unlimited amounts at many points in the Ouachita mountains and the Ozark plateaus.

"Deposits of tripoli exist both in the Ouachita mountains and the Ozark plateaus and the supply is abundant. One industry has been engaged in the mining and preparation of tripoli in northwestern Arkansas for some years.

"Deposits of vari-colored slates in Arkansas are of great extent, and their increased use will follow the return of building construction activity. This also applies to the utilization of deposits of building stone, crushed and broken stone, sand and gravel.

"The whetstone rock deposits of central and western Arkansas are of practically unlimited extent, and their development, will undoubtedly form the basis of continuing quarrying industries.

"The petroleum industry is the giant of all of the Arkansas mineral industries. It has paid more to the state in taxes, has brought more people into the state, and has caused the expenditure of more money within its borders than has any other single mineral industry. It is obvious, therefore, that no stone should be left unturned to encourage systematic and legitimate prospecting for new oil fields to make up for the progressive depletion of the present producing areas."

"It is to be noted that over \$372,000,000 worth of petroleum has been taken from the state from 1921 to 1934, inclusive. This is about 2 1-3 times the value of its nearest competitor, coal, which has been produced continuously since 1880. The use of new prospecting methods (principally geophysical methods) and uses of new types of drilling equipment will probably play an important part in the discovery of new fields in southern and possibly eastern Arkansas.

"The recent discovery of commercial quantities of 43 gravity oil, together with a daily flow of about 40,000,000 cubic feet of gas near Snow Hill, in southeast Ouachita county, in the Phillips Petroleum Company's Reynolds No. 1 well, is a matter of greatest interest, and the new producing horizon may prove to have very important bearing on the future oil and gas production in southern Arkansas. It is, to some degree, possible that oil may be discovered in the northern portion of the Arkansas river valley, in addition to the gas already found there, and deep prospecting is to be encouraged in that area.

**New Gas Fields Likely.**  
"Although the margin of profit and marketability is a controlling factor in natural gas production in Arkansas, it is not unlikely that several new gas fields will be discovered in the Arkansas river valley portion of western Arkansas in the next few years, as geologic conditions over a large area there are favorable for gas accumulation. The remarkable expansion of the trunk gas line system in Arkansas and adjacent states in recent years has added much to the value of any gas field which may be discovered in western Arkansas. Gas trunk line mileage in Arkansas increased from 220 miles in 1924 to 1,289 miles in 1931, an increase of 585 per cent.

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"Of the 22,775,000,000 cubic feet of gas consumed in Arkansas in 1935, it is estimated that only 36.4 per cent was produced in the state and of the remainder 61.3 per cent was imported from Louisiana and 2.3 per cent from Oklahoma. This situation is doubtless due almost wholly to a price advantage in favor of imported gas, and not to a lack of gas reserve within the state.

"Coal production is also largely marginal, because of the relatively high cost of production. Most of the new coal mining activity is confined to high grade deposits. Fairly complete knowledge of the coal deposits of western Arkansas is available and the reserves are estimated at about 500 million tons, assuming a 50 per cent recovery.

**Bauxite Imports Have Bearing.**  
"Bauxite production is to some degree marginal, the production being controlled to a considerable extent by the amount of bauxite imported from British and Dutch Guiana. Judging by the figures from 1926 to 1930, the relation between the Arkansas production and the amount of ore imported into the United States seems to have become fairly well stabilized. It seems probable that larger reserves of bauxite are available in Arkansas than is commonly believed, and geographical prospecting will probably play an important part in the discovery of new deposits.

"It is a significant fact that the use of domestic bauxite for the manufacture of metallic aluminum in the United States has decreased from 68 per cent in 1918 to 35.2 per cent in 1934, the remainder being used in the manufacture of chemicals and abrasives. In view of the fact that Arkansas has furnished over 90 per cent of the bauxite produced in the United States since 1934, this increase in the consumption of bauxite for non-metallic use has done much to stabilize the Arkansas industry, as it has permitted the small independent miner to produce an increasing proportion of the total production.

"The development of a permanently established diamond producing industry in Arkansas may well follow the consolidation of ownership and thorough testing of the diamond bearing volcanic plugs in Pike county. As is well known, these plugs, the surface of which cover about 80 acres, are the only rocks containing diamonds in place which have been discovered on the North American continent. No adequate test of these plugs has ever been made. Estimates of diamonds recovered up to the present time vary from 10,000 to 48,000 stones. It is estimated that eight to 10 per cent of the stones recovered may be classed as gems, and the remainder as industrial diamonds.

"In reviewing the outstanding opportunities for development of our mineral resources, it should be kept in mind that Arkansas is largely a producer of fuel minerals (82 per cent of all minerals produced in the last 55 years have been fuels), and distinct economic advantages over many other states exist here by virtue of this fact. It should be further emphasized that very little attempt has been made to fabricate raw materials in Arkansas, and detailed studies of the production of finished mineral products should undoubtedly be undertaken.

**Leadership Important.**  
"A state geological survey may render great assistance to industry by leading the way in basic research to the development of new mineral industries. Although it is true that the development of many of our mineral reserves are at present marginal as to profits, the fact remains that the profits in the mineral industry are determined by present methods of extraction, preparation and use.

"If researches are made into the character of our various clay, bentonite and fuller's earth deposits, it is not improbable that certain new and unknown quantities in these earths will be discovered which may, in turn, increase the value of the raw material and the profits to be realized from its production. This also applies to research in the shales and slates, limestones and dolomites. Researches in Illinois on the siliceous limestones resulted in the development of a rock wool industry there. "Coal researches as to the chemical character of Arkansas coals may be of substantial value to the coal producers. Researches into petroleum production, the study of such items as flowage through oil sands, subsurface structure, and the chemical and paleontological character of well cuttings, will be of unquestionable value.

**Well Interests Little Rock Residents**  
Special to the Gazette.  
Shreveport, La., Dec. 22. — E. T. ("Reb") Oakes of Shreveport, independent oil operator and wildcatter, who organized and directed the operation resulting in the drilling of the No. 2 Patton well in NE NE section 1-20-5, Claiborne parish, is well known in oil circles of the tri-state territory embracing north Louisiana, south Arkansas and east Texas fields, especially in northwest Louisiana and southeast Arkansas. His brother, Melton Oakes, is a Homer bank president, and his first cousin, Guy Oakes, is a wealthy holder of oil field interests.

"Reb" formerly was a professional baseball player. He was famous as a big leaguer, especially when a member of the Pittsburgh National team as an outfielder, hitting .311 in 1914. He celebrated his 47th birthday Thursday when testing of the No. 2 Patton Estate was begun.

**A Veteran Operator.**

He began Patton No. 1, located 72 feet from the Patton No. 2, in 1934, and after logging top of and oolitic lime section just below 4200 feet he lost the well due to hanging formation tester. He had to skid over for a new hole the present one, which has been drilling since the summer of 1935. Previously, in De Soto parish, he began a well near Longstreet, taking the wildcat operation down to 5500 feet, as originally agreed. He kept at it three years, but got salt water after some good showings. He gained the reputation of never giving up. More than \$100,000 has been spent by Oakes and associates in the three wildcatter operations, it is estimated, with probably \$70,000 spent on the two tests in Claiborne parish. Among those associated with him in the Patton No. 2 estate wells is H. D. Easton, well known geologist of Shreveport. This well is making 34.6 gravity oils by heads at the rate of about two barrels per hour from Glen Rose lime at total depth of 5379 feet in 20 feet of saturation. It is about six miles northeast of the Sugar Creek gas-distillate field of the same parish.

The test is on a 7,000-acre block assembled by Oakes on the geology of H. D. Easton, who made locations for the first producers in the Amory, Miss., and the Zwolle and Converse, La., fields. Members of the Patton family pooled the nucleus to this block totalling about 2,000 acres, and asked Easton to recommend an operator. Easton has been a friend of the Patton family for years, and it is written in the Patton leases that location was to be made on his geology and he was to have voice in drilling the well in which he owns part interest.

**Little Rock Interested.**  
A number of Little Rock people are interested in Oakes' block and many from that city have witnessed testing of the well which began last Thursday. The well first began to head late Friday night after being washed several hours. It has not thoroughly cleaned itself. The fact that it has not cleaned itself and flowed steadily may be due to the fact that 5 3-16 inch casing was set just after the present show. Oakes set 7-inch casing at 5,007 feet where he had a previous gas show.

There is no appearance of salt water, and another fact bearing encouragement is that the well proves the existence of a new oil structure. Additional drilling is considered a certainty. Although hope is entertained that the well will clean itself, resulting in larger yield, plans have been made to run swab so as to quicken production.

The eyes of the oil fraternity are centered on the new well, which is about four miles south of a wildcat well drilled by the United on Meadows No. 1 and abandoned at 6712 feet. Although abandoned the well ever since has been making a small stream of oil through a pipe.

Nearest oil production to Oakes' operation is in the Homer field, which is about 15 miles west. Many persons in Claiborne parish, including a number at Haynesville, have interest in the new operation and in potential operations expected to be made because of this new test.

A 1,000-barrel tank for storage has been erected. Other storage will be provided if developments justify.

**Engineers Say New Gas Field May Be Found**

Dem. 2-12-37  
Show Remarkable Expansion of State Gas Line System.

Although the margin of profit and marketability is a controlling factor in natural gas production in Arkansas, it is probable that several new gas fields will be discovered in the Arkansas River Valley portion of western Arkansas in the next few years, as geologic conditions over a large area there are favorable for gas accumulation, according to a report made recently by research engineers of the State Geological Department.

The remarkable expansion of the trunk gas line system in Arkansas and adjacent states in recent years has added much to the value of any gas field which may be discovered in western Arkansas. Gas trunk line mileage in Arkansas increased from 220 miles in 1924 to 1,289 miles in 1931, an increase of 585 per cent.

Of the 22,775,000,000 cubic feet of gas consumed in Arkansas in 1935, it is estimated that only 36.4 per cent was produced in the state, and, of the remainder, 61.3 per cent was imported from Louisiana, and 2.3 per cent from Oklahoma. This situation is doubtless due almost wholly to a price advantage in favor of imported gas, and not to a lack of gas reserves within the state.

**Pipeline to Mean Barge Shipments of Gasoline**

El Dorado—The long-talked about barging of gasoline and other products down the Ouachita river now is nearing reality.

The Lion Oil Refining Company of El Dorado, largest shipper in Arkansas, and one of the largest on the Missouri Pacific system, has started construction of a four-inch pipeline from the refinery here to Champagnolle Bluff on the Ouachita river, near Calion.

With completion of the line expected between April 15 and May 1, first barges loaded with gasoline are expected to move down the Ouachita river early in May.

Gasoline, kerosene and gas oil will be moved through the 12-mile, four-inch line into large storage tanks to be erected on Champagnolle bluff.

The products will be shipped at first to Greenville, Miss., and Memphis, Tenn., and the Lion may extend activities to Chicago and other large markets.

**Recommends Increase in Oil Output**  
 Dem 3-24-37  
 Market Demand of 3,179,000 Barrels Exceeds Estimate.

Washington (AP)—The Bureau of Mines recommended today a daily average crude oil production of 3,243,000 barrels to meet the estimated demand during April. This forecast was 84,000 barrels higher than for March and 227,000 barrels higher than for April last year.

Reviewing conditions of the four weeks preceding March 6, the Bureau said production of crude oil averaged 3,310,000 barrels, and 131,000 barrels daily were added to domestic crude stocks, making an indicated market demand of 3,179,000 barrels. The bureau's estimate of this demand was 3,088,000 barrels.

The Bureau's recommended production by states (in barrels) included:

	March	April
Texas	1,256,600	1,297,900
Oklahoma	590,700	609,600
California	570,900	569,900
Louisiana	240,000	244,800
Kansas	178,000	183,000
New Mexico	88,200	91,400
Pennsylvania	49,000	49,800
Wyoming	42,200	44,000
Michigan	30,300	30,600
Arkansas	28,500	27,400
Kentucky	16,500	15,600

**INCORPORATION MATTERS.**

The Wallace Drilling Company of Hot Springs filed articles of incorporation in the secretary of state's office yesterday, listing authorized capital \$40,000 4-21-37 stock of \$5,000. Incorporators were shown as Bruce F. Wallace of Hot Springs (also named resident agent), S. F. McGinn of Des Moines, Ia. and Catherine Wallace of Hot Springs.

**Another Indications To Be I**

**Chancy Enterprise; Driller's Odds Given on Basis of Experience to Date**

By WILLIAM JOHNSON.

The dictionary is certainly guarded in its views. It says petroleum is "a dark brown or greenish inflammable liquid, which at certain points exists in the upper strata of the earth." That is all. Not a word about the upheaving tumults of excitement petroleum creates. No reference whatever to the glorious, gaudy rejoicing, the breezy, chesty, roaring boom a strike of oil touches off. Instead of hunting up some words that zipped and crackled and got in among the emotions and churned them up like a horse struggling to get out of a duck pond, old Noah Webster was satisfied to drop petroleum with that feeble statement. One wishy-washy sentence for the stirring-uppest subject since General Beauregard plumped a cannon shot into Fort Sumpter, and Noah left it there and went to discussing pettifoggery and petunias and pewees. It kind of shakes your faith in the flawlessness of great men. But, of course, come to think of it, Noah never saw an oil boom. He ought to have been in Smackover in 1923, when "The Largest Oil Well in America" blew in with a flow that filled a 1,000-barrel tank in 20 minutes.

There was excitement "as was" excitement. Maybe you recall the hooraying joy, the rollicking, high-feather delight that swept over the state. Smackover was tumbled out of its village calm into a scene of feverish animation. It was a flag station in 1920, too small then to be listed separately on the map. And suddenly thousands of people poured into it, thrilled and buoyant and jaunty, scrambling around for food and shelter in a hamlet that was all agog and astounded.

Milling, jostling crowds laughter and gay talk a huge, good-humored confusion teams of a dozen mules or oxen straining through mud with loads of machinery, bogging down in the soft going, drivers cracking whips and urging the animals on wheels chucking, hoofs splashing, the ceaseless tramp and squash of moving feet the oil derricks lean and dark against the sky. Thus did Smackover burst from its small confines, like a butterfly from a cocoon, to become, in brief time, a sprightly young city.

**Much Drilling Under Way.**

Will Arkansas have another Smackover? A lot of drilling is now under way in the state. Around 60 permits have been issued since the first of the year. The Shuler well, recently brought in southwest of El Dorado, has given a fresh fillip to the hope that springs eternal in the oil man's breast. Is there a prospect of the quest coming again to such triumph as it did in the Smackover strike?

The scrivener of this piece took that question to Dr. George C. Branner, state geologist. His answer was a quick "Why not?" He referred to the Shuler well, and explained that this promising drilling is in a deep area, not much explored as yet, which contains hundreds of square miles of possible oil-bearing formation. In other localities, too, the chance of striking a handsome deposit of "black gold," or gas, exists, the geologist indicated.

Dr. Branner wasn't predicting any rich oil find as a certainty. He is too good, too careful, a scientist for such rashness as that. But he has studied the drillings in the state, their production or failure, and the nature of the rocks and earths encountered, till he has a general picture in his mind of what much of Arkansas looks like for thousands of feet deep. And on the basis of that knowledge, he believes it strongly probable that the state still has a lot of oil for those who are lucky enough to find it.

Your informant plied the geologist with some questions. What has it cost to drill the average well in Arkansas? How have the returns stacked up beside the outlay? What are the chances, in the light of experience, of striking oil or gas in the regions viewed as favoring production?

Mostly, Dr. Branner can answer questions about minerals from the knowledge he carries in his head. When he needs a figure or fact, he can fish it out of his files in a deft, off-hand manner that strikes admiration and awe into a person like the writer, whose desk is always getting into a vast and mysterious jumble.

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**TELEPHONE** \_\_\_\_\_ **ALL DEPARTMENTS** \_\_\_\_\_ **4-0321**

**THE SOUTH'S STAKE IN COTTON.**

The South's greatest need is the favorite theme of all of us who write for a living; for the experts it's an indis-

tinction of oil and gas. It embraces Miller, Lafayette, Columbia and Union counties, and the southern parts of Little River, Hempstead, Nevada, Ouachita, Calhoun, Bradley and Ashley counties.

**One to 58.1 Chance.**

In this region, Dr. Branner's records show, 984 tests have been drilled outside of producing fields, and 17 have discovered yielding localities. Thus, he observed, assuming that one producing well is required to find a field, the chances of striking new deposits here are 17 to 984, or one to 58.1, according to the hits and misses up to the end of December, 1936.

In the Gulf Coastal Plain area, which includes much of eastern Arkansas, the chances run stronger against the driller, being one to 84.7 as indicated by experience.

The Arkansas valley region of the western part of the state where the brightest drilling prospects appear, takes in 7,250 square miles, it includes, Dr. Branner explained, Crawford, Franklin, Johnson, Pope, Van Buren, Cleburne, Sebastian and Conway counties, and parts of Searcy, Independence, Logan, Yell, Faulkner, White and Scott counties.

In this expanse, the geologist continued, 102 tests have found 14 gas fields. Hence, the chance of a successful drilling, in the light of results, stands at 14 to 102, or 1 to 7.2.

Considering the 14 successful wells in the highland area, the driller's chances in that territory figure out at 1 to 16.6.

That's better than in the southern region, but gas doesn't seem to inflame the ambition that it it by hopes of oil. Yet it is believed by informed men that our gas, made available in ample quantities, at cheap rates, would give the state a powerful drive toward the industrial flowering it so much wants and needs.

**Oil Thing of Magic.**

Oil is a thing of wonder and magic to the mind. It stirs men's imaginations like the proud flaunting of flags and the silvery crackle of bugles. It can build a city in a grand sweeping rush. El Dorado, in 1920, was just a pleasant country town. Then, the next year, oil was struck, and El Dorado was swamped with people and prosperity. It exploded into an impressive, hustling city.

Since 1920, there have been 17 oil fields and nine new gas fields discovered in Arkansas. But the one that most stirred the nation, and wrote the name of Arkansas in letters of gold on the country's oil map, was Smackover. Harper's Magazine ran a long story about the Smackover boom, in 1923, written by Max Bentley. Here are a few paragraphs from it that are a tingle with the drama of oil:

"They had shut off The Largest Oil Well in America three days before (my visit in the fall of 1923). There were not enough pipe lines to handle the flow. When we arrived the monster was still.

"They opened it up cautiously. There were not enough pipe lines to handle the flow. When we arrived the monster was still.

"They opened it up cautiously. The driller waved an imperious signal; the chief 'rough neck' on the job swung a lever.

"Stand back, everybody!"

"Gas, faintly blue and transparent, sprayed thinly from the flow pipe. The pressure became stronger, tremendously stronger; the singing sound mounted the keys, higher and higher, until it filled the air with a warning shriek.

"With an ear-filled roar the oil came. A six-inch stream shot from the pipe against the splash box. The pipe trembled, buckled, reared backward.

**Drama in Smackover.**

"Then, as we looked, rooted to the spot, came disaster. The top of the well blew off. A jet-black stream leaped cleanly upward until it attained a height of 200 feet. Far above the heads of the men it spread out like a giant parasol. The sun's rays caught it obliquely, turning its greasy green-black folds into wondrous tints of purple and deep blue and maroon.

"As the oil began falling the deep green of the pine trees was blotted away. On the instant they were turned to a greasy black, and their befouled branches literally rained oil.

"The owner of The Largest Oil Well in America had watched the proceedings from a convenient hillside. It meant a lot to him to save that well, but he gave no sign. He merely flung a leg over the saddle horn, pushed back his hat and rubbed his cigaret to powder between his gloved hands. He called a driller.

"See that every cigaret is out, Bill, and keep the crowd back," he said. "Let's cap it. We've got a job ahead."

"They got to work, and they capped it. Seventy-two hours later, 50 men on the rig subdued the mon-

**The NEWS**

One-Act Play.  
 Time: Wednesday afternoon.  
 Place: The governor's private office.  
 Characters: Lieut. Gov. Bob Bailey, a visitor to the gubernatorial suite, and an employe in the governor's office.  
 The curtain rises.

Lieutenant Governor Bailey is seated at the governor's desk. He has just taken over affairs of state in absence of Governor Carl E. Seay, brought it under control; but not until it had blown off enough gas and oil to pay for itself 10 times."

The Harper's writer closed with a paragraph of tribute to the adventurous seekers of oil. He said: "Thus I glimpsed the fiber of the oil man. I thought of the corduroy log roads and bridges through the swamp. I thought of Smackover's muddy Main street bravely named Broadway; and I wondered, not that man was able to carry on here, but that nature, for all her power, had enough power to check these determined men a minute."

**Tate Island Gas Field To Be Opened**

Special to the Gazette. **4-29-37**

Russellville, April 28.—The Arkansas-Louisiana Gas Company is preparing to open the Tate Island gas field on Big Piney creek, 15 miles northwest of Russellville, connecting the four producing wells of the field, the John E. Moore, Brooks-McFadden, Crofts, and Harms, with the main line.

Approximately a month will be required to lay nine miles of six-inch pipe to connect the wells with the main line, and from 75 to 100 men will be employed. L. L. Irvin of Russellville, will be pipe line foreman.

The route has been laid out but right-of-way has not all been acquired.

The Tate Island wells were drilled and capped about four years ago. They have a combined daily output of approximately 78,000,000 cubic feet.

Increased gas consumption in this section and a slight decline in pressure of the leading wells of the Clarksville field, which is serving this territory, is said to have led to the opening up of the local field.

**Plan to Open Tate Island Gas Field**

Russellville—Opening of the Tate Island gas field on Big Piney creek 15 miles northwest of Russellville, is being prepared for by the Arkansas-Louisiana Gas Company. This will connect the four producing wells of the field, the John E. Moore, Brooks-McFadden, Crofts and Harms, with the main line.

Approximately one month will be required for the laying of nine miles of six-inch line to join the wells with the main line, and from 75 to 100 men will be employed, it is estimated. L. L. Irvin of Russellville will be in charge as pipe line foreman.

The line has been laid out for the project, but not all right-of-way has been acquired.

The Tate Island wells, only one of which is located on Tate Island, the Brooks-McFadden well, the other three being on a mountain just across the creek from Tate Island, were drilled and capped about four years ago. They have a combined daily output of approximately 78,000,000 cubic feet.

Increased gas consumption in this section and a slight decline in pressure of the leading wells of the Clarksville field, now serving this territory, is said to be the reason for reopening of the local field.

The Neutrality Bill  
 The new neutrality bill upon by the conf is stop-gap legislative years, and it is pr compromise as co worked out in a t tions are so unse opinions are at six The present bill between two schoo one holds that if American entangle war is in effect to tions with Europe, that such comple would produce an

*Pope*

*Pope*

The Arkansas-Missouri Power Corporation of Delaware filed notice of entrance in Arkansas, naming James Hill Jr. of Blytheville as resident agent and listing \$648,437.50 worth of property owned in Arkansas.

The Apex Oil and Gas Company of Little Rock, to engage in oil and gas development, naming Roy Prewitt of Little Rock resident agent and showing \$1,000 as capital with which the firm will begin business. Incorporators were listed as Mr. Prewitt, John Carter of Little Rock and B. F. Alley of Rogers.

#### Gazette 5-16-37

The Brown Oil Company of El Dorado, naming Tom Marlin of El Dorado resident agent, and showing \$5,000 as capital with which the firm will begin business. Incorporators were shown as Virgil Brown of El Dorado and Harry Steffen and Ethel Steffen of Smackover.

The General Geophysical Corporation of Delaware filed notice of entrance into Arkansas, to deal in lands believed to contain oil, gas and other volatile minerals, naming J. E. Fredrickson of El Dorado resident agent, and showing \$10,000 worth of property owned by the company in Arkansas.

for 1936 taxes yesterday.

#### Gazette 5-26-37

##### INCORPORATION MATTERS.

Four domestic firms filed articles of incorporation in the secretary of state's offices yesterday, as follows:

Canadian-American Oil Company of El Dorado, naming W. A. Speer of El Dorado resident agent, and showing \$100,000 authorized capital stock. Incorporators were listed as F. M. Ginther of El Dorado, C. D. Baldwin of Shreveport, La., and W. C. Medley of El Dorado.

B. C. Gin Company of Leachville.

##### INCORPORATION MATTERS.

Two domestic firms filed articles of incorporation in the secretary of state's office yesterday, as follows:

Searcy Auction Barn Company of Searcy, White county, naming Oran J. Vaughn resident agent, and showing \$800 as capital with which the firm will begin business. Incorporators were S. W. Sanford, Mr. Vaughn, V. H. Davis, B. L. Oliver, J. T. Cone, George D. Booth Sr., H. M. Thompson and B. C. Huddleston, all of Searcy.

The Pool-Ault Motor Company of Hot Springs, naming Waldo Pool and Ruey S. Ault resident agents, and showing \$3,500 as capital with which the business will begin operations. Mr. Pool, Mr. Ault, Mrs. Ida E. Ault and Mrs. Zula A. Pool were shown as incorporators.

The Republic Production Company of Delaware, filed notice of entrance into Arkansas, to prospect for and develop oil, coal and other minerals, naming John W. Newman of Little Rock resident agent and showing \$25,170.30 worth of property owned in Arkansas.

Patterson Orchards Inc. of St. Louis, filed notice of withdrawal from the state and surrender of its charter to operate in Arkansas.

The Cross County Printing Company Inc. of Wynne, of which Donald Murray, Aline Murray and Roland Hughes are directors, filed notice of authorization of sale of all property and assets to Mr. Hughes, and also authorization to dissolve the corporation.

#### Gazette 5-4-37

##### INCORPORATION MATTERS.

The L. and A. Royalty Company, a Texarkana oil field development concern, and the Big Hurricane Mining Corporation, main offices of which are at Yellville, Marion county, filed articles of incorporation yesterday in the secretary of state's office.

Incorporators of the mining corporation, which is authorized to issue 1,000 shares of capital stock at \$100 a share par value, and which began operations with \$100,000 capitalization, are Ralph and C. M. Huddleston of Yellville and Harold R. Parker of Little Rock. C. M. Huddleston was designated as resident agent.

Incorporators of the L. and A. Royalty Company, of which V. M. Guyton of Texarkana is resident agent, are F. M.

Ginther and N. B. Marye of El Dorado and C. D. Baldwin of Shreveport, La. The company is authorized to issue 2,000 shares of \$50 par value. It began business with \$1,000 capital.

Trinity Petroleum Company of Houston, Tex., filed notice of entry into the state, naming John W. Newman of Little Rock as agent for service and estimating that \$10,000 will be invested in its business in Arkansas. It has 140,000 shares of stock authorized at no par value.

Notice of dissolution as a corporation was filed by the Big Four Compress and Warehouse Company of Memphis, Tenn., which surrendered its charter.

Haynes Drilling Company of Texarkana filed notice that Richard L. Arnold of Texarkana had replaced David C. Arnold as agent for service.

##### INCORPORATION MATTERS.

Articles of Incorporation were filed in the secretary of state's office yesterday for the Co-operative Gas and Oil Company of Fort Smith. The company is authorized to issue 15 shares of capital stock at \$100 par value. It began operations with \$1,500 capital. Incorporators are: Lynch Creekmore of Van Bureau, who is resident agent; and J. M. Tibbetts and Elizabeth Tibbetts of Spiro, Okla. Gazette 6-8-37

##### INCORPORATION MATTERS.

Articles of incorporation for the Miller County Brick Company, Inc., of Texarkana, were filed yesterday in the secretary of state's office. Incorporators are Frank S. Quinn, who was named as agent for service, and H. M. Barney of Texarkana, Ark., and H. P. Stephens of Texarkana, Tex. Notices of entry of a foreign corporation to do business in the state were filed by Frank Pilley & Sons, Inc., of Omaha, Neb., a dairy products concern of which John W. Newman of Little Rock is resident agent, and the Stanley Oil Corporation of Miami, Fla. Joe Mosby of Crawfordsville, Crittenden county, is agent for the latter firm, which listed assets at \$30,000.

##### INCORPORATION MATTERS.

Articles of incorporation for the Ozark Electric Co-operative, Inc., were filed yesterday in the secretary of state's office, listing Woody Murray, Boone county representative, as agent for service, and designating Harrison as headquarters for the corporation.

Incorporators were John B. Brown of St. Joe, W. G. Magness of Lead Hill, J. B. Ewart of Bruno, W. J. Pruitt of Jasper and Floyd Stinnett of Harrison. The co-operative will seek federal

funds with which to build a rural electrification project in Boone county.

Two Sebastian county coal mining companies filed incorporation articles, each naming Degan Boyd of Fort Smith as resident agent and one of the incorporators. They are:

The Greenwood Corporation of Fort Smith, 200 shares, \$25 par value each, incorporators, Degan Boyd, McLoud Sicard and Neil Sims, all of Fort Smith, capitalization at opening of business, \$300.

Boyd-Sicart Coal Company of Greenwood, 100 shares, \$25 par value each, incorporators, Degan Boyd, A. N. Sicard, McLoud Sicard and S. B. Stevinson, all of Fort Smith, capitalization at opening of business, \$300.

Incorporation articles were filed by Thompson, Inc., a general mercantile firm at Crossett. Incorporators were: C. P. Thompson of Crossett, president and agent for service; Mrs. A. L. Miller of Alexandria, La., vice president and Mrs. C. P. Thompson of Bastrop, La., secretary-treasurer.

Business Stimulators and Advertisers Inc., of Eureka Springs, filed articles of incorporation. Incorporators were: W. G. Barker of Eureka Springs, who is agent for service, Willford Wall of Berryville and W. E. Diehl of Eureka Springs.

#### J. W. Fitzjarrell, Fayetteville, Named Mine Inspector.

Appointment of J. W. Fitzjarrell, Fayetteville retail coal dealer, as state mine inspector was made yesterday by Governor Bailey. He will succeed Claude Speegle of Fort Smith, who has served as mine inspector for about 14 years.

Act 233 of 1937 gives the governor power to appoint the state inspector, an authority formerly delegated to the state Mine Inspection Board. The law provides that the inspector shall receive \$3,000 annually, and that his offices shall be located in Fort Smith.

Mr. Fitzjarrell was superintendent of the Central Coal and Coke Company properties in Sebastian county for 20 years before he moved to Fayetteville six years ago.

#### State Invited to Join Oil Compact Commission.

Governor Bailey considered an invitation yesterday to enroll Arkansas as a member of the Interstate Oil Compact Commission. He was asked to send a representative to the commission's annual meeting July 12-13 at Santa Fe, N. M., by W. J. Holloway and C. C.

Brown of Oklahoma City, representative and technical advisor respectively of the commission. Mr. Holloway is a former governor of Oklahoma.

Texas, Kansas, Oklahoma, New Mexico, Colorado and Illinois are commission members.

O. C. Bailey, chairman of the state Board of Conservation, attended the conference.