CONTINENTAL OIL COMPANY

SUMMARY REPORT OF OPERATIONS

LANE RANCH UNIT

LEA COUNTY, NEW MEXICO

MARCH 25th TO SEPTEMBER 25th

1955

The Lane Ranch Unit embraces a total of 2,800 acres comprised of the following State lands:

Township 10 South, Range 33 East, Lea County, New Mexico

Section 3:	S/2
Section 4:	S/2
Section 5:	E/2 of SE/4
Section 8:	E/2 of E/2
Section 9:	All
Section 10:	All
Section 15:	N/2
Section 16:	N/2

The Unit membership is composed of the following companies whose respective participation percentages are shown:

Continental Oil Company (Operator)	21.42857
Cities Service Oil Company	21.42857
Warren Petroleum Corporation	22.85715
Gulf Oil Corporation	34.28571

The initial Unit exploratory well (State Lane Ranch Unit No. 1), located 1980' from the South and East lines of Section 9, was spudded on April 29, 1955. Thirteen and three-eights inch OD surface casing was set at 632' and cemented with 700 sacks; cement returns were circulated to the surface. Before and after drilling cement plug, casing was pressure tested with 500 psi. for a period of 30 minutes; no pressure drop occurred. Nine and five-eighths inch OD intermediate casing was set at 3804' and cemented with 2,200 sacks; 17 centralizers and 107 scratchers were employed. Electrical and hole caliper logs were run prior to running casing. A temperature survey indicated the top of the cement outside the casing to be at 1908'. Before and after drilling cement plug,

9 5/8" OD casing was pressure tested with 800 psi. for a period of 30 minutes; no pressure drop occurred.

An 8 3/4" open hole was drilled from below the intermediate casing to a total depth of 12,245'. The following drill stem tests were taken during the course of drilling:

DST No. 1: Tested interval 9152-9401' in Wolfcamp formation. Tool open one hour. Recovered 296' of slightly gas cut drilling mud. IFP - 220#, FFP - 360#, 15 min. SIP - 825#.

DST No. 2: Tested interval 9660-9830' in Wolfcamp formation. Tool open 1 1/2 hours. Recovered 900' of drilling mud and 7100' of salt water. IFP - 1315#, FFP - 3685#, 15 min. SIP - 3685#.

DST No. 3: Tested interval 11,095-11,185' in Bend Sand of the Pennsylvanian formation. Tool open one hour. Recovered 150' of drilling mud; no shows of oil, gas or water. FFP - 175#, 15 min. SIP - 205#.

DST No. 4: Tested interval 12,065-12,192' in the Devonian formation. Tool open 3 hours. Recovered 1104' of water cut drilling mud. FFP - 540#, 15 min. SIP - 4545#.

DST No. 5: Tested interval 12,198-12,245' in the Devonian formation. Tool open 55 minutes. Recovered 552' of drilling mud and 9853' of salt water. IFP - 3780#, FFP - 4680#, 15 min. SIP - 4725#.

After the well reached a total depth of 12,245', the following surveys were run:

SP - Resistivity Electrical Log
Microlog with Microcaliper in Conjunction
Laterolog
Velocity Survey

Formation tops as picked from electrical logs are reported as follows:

-

Anhydrite	1745'	Abo	7493'
Top Salt	1894'	Hueco	8730'
Base Salt	2388'	Saunders Lime	9330'
Yates	2512'	Mississippian	11,410'
San Andres	3758'	Woodford	12,035'
Glorieta	5185'	Devonian	12,145'
Tubbs	6632'	(Total Depth	12,245')

Following running of surveys, cement plugs were set in the following intervals:

12,000 - 12,245' with 100 Sacks

11,100 - 11,400' with 150 Sacks

9,500 - 9,700' with 120 Sacks

After plugging back to 9500', the following drill stem tests were taken:

DST No. 6: Misrun due to packer failure.

DST No. 7: Tested interval 9257-9500' in Wolfcamp formation. Tool open one hour. Recovered 310' of drilling mud. No shows of oil, gas or water, FFP - 310#, 15 min. SIP - 370#.

Seven inch OD casing was set at 9498' and cemented with 240 sacks; 5 centralizers and 26 scratchers were employed. A temperature survey indicated the top of the cement behind the casing to be at 9034'. Casing was pressure tested with 1000 psi. for a period of 30 minutes; no pressure drop occurred.

Testing of possible productive intervals in the

Wolfcamp formation was accomplished by the following series of operations:

1. Ran a simultaneous gamma ray-neutron radioactivity log.
2. Perforated 7" OD casing from 9450 to 9490' with four jet shots per foot.
3. Ran 2 3/8" OD tubing and washed perforations with 500 gals. of mud acid; failed to squeeze acid into formation employing a maximum surface pressure of 6800 psi.
4. Reperforated 7" OD casing from 9450 to 9490' with five 2" bullets spaced at eight foot intervals.
5. Spotted 500 gals. of mud acid on perforations; failed to squeeze acid into formation employing a maximum surface pressure of 7000 psi.
6. Set bridge plug at 9438' and capped it with one-half sack of cement.
7. Perforated 7" OD casing from 9414 to 9430' with four jet shots per foot.
8. Treated formation through perforations 9414-9430' with 500 gals. of mud acid; maximum and minimum surface treating pressures were 7600 and 6800 psi. respectively. After recovering fluid load, swabbed 3.4 bbls. oil, with a light

show of gas, in six hours; tubing swabbed dry at end of test.

9. Retreated formation through perforations 9414-9430' with 3,000 gals. of 15% low tension non-emulsifying acid. After squeezing 700 gals. into formation with 6200 to 5800 psi. surface pressure, squeeze tool packer element failed and the balance of the acid was reverse circulated out of the hole. Fluid load was recovered by swabbing.

10. Again retreated formation through perforations 9414-9430' with 3,000 gals. of 15% low tension non-emulsifying acid. After the fluid load minus six barrels was recovered, tubing swabbed dry.

After completion of testing, a ten sack cement plug was spotted from 9389 to 9439' and then approximately 5250' of the 7" OD casing string was recovered. The rotary drilling rig was released on September 27, 1955. Preparations are being made to move in a casing pulling unit in order to complete the plugging and abandoning procedure.

Case 868
Ex 1
Cont. C

New Mexico Oil Conservation Commission
Commissioner of Public Lands
Santa Fe, New Mexico

Continental Oil Company, a corporation, is the owner of certain leases, subject to contract between Cities Service Oil Company and Continental Oil Company, in the proposed Lane Ranch Unit area. This area is shown on Exhibit "A" attached to the application for approval of the Lane Ranch Unit Agreement. The proposed unit is based primarily on the results of a geophysical survey and no definite geological information of a structural nature is available. The seismograph survey reveals a closed structure, with a minimum of 130 feet of closure in all directions. The geophysical structure is located 5 miles east of the Mescalero Field and 10 miles north of the Bagley Field. Contours as mapped on the Devonian horizon by the geophysical survey are shown on enclosed Exhibit "A." The seismograph survey was accomplished during 1954. An index map is attached hereto and made a part hereof and for purposes of identification marked Exhibit 1, which shows the position of the proposed unit in relation to nearby producing fields.

Production may be expected under conditions similar to that of the Mescalero Field and from equivalent geological units. Therefore, the Devonian, which produces in the above mentioned field, is the primary objective and should be encountered at a predicted depth of 11,500 feet.

A 12,500 foot Devonian test is contemplated contingent upon the approval of the proposed subject unit.

Development in the subject area tends to be retarded due to the wide diversity of ownership and should development be undertaken by the individual lessees, it would not be done in as orderly and scientific a manner as is desirable. The Lane Ranch area as outlined on Exhibit "A" is a single anticlinal structure and is therefore, submitted as a proposed unit in order to bring this diversified ownership together so that development might be carried out in an orderly manner and in the best interests of conservation.

Respectfully,

G. H. Galny

G. H. Galny
Division Geologist

G H Swenumson

G. H. Swenumson
Division Geophysicist

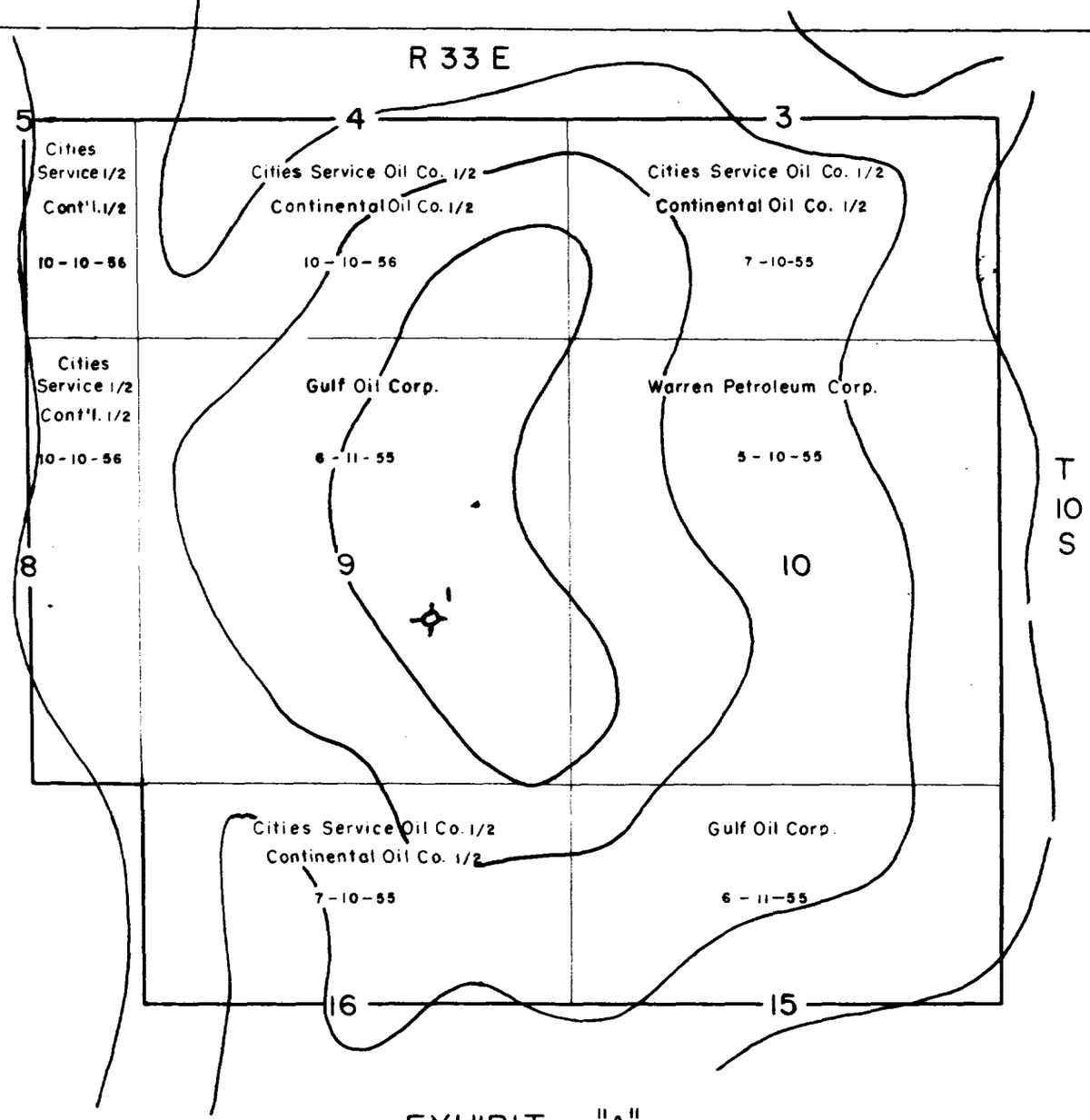


EXHIBIT "A"

MAP OF

LANE RANCH UNIT

Lea County, New Mexico

T10S - R33E

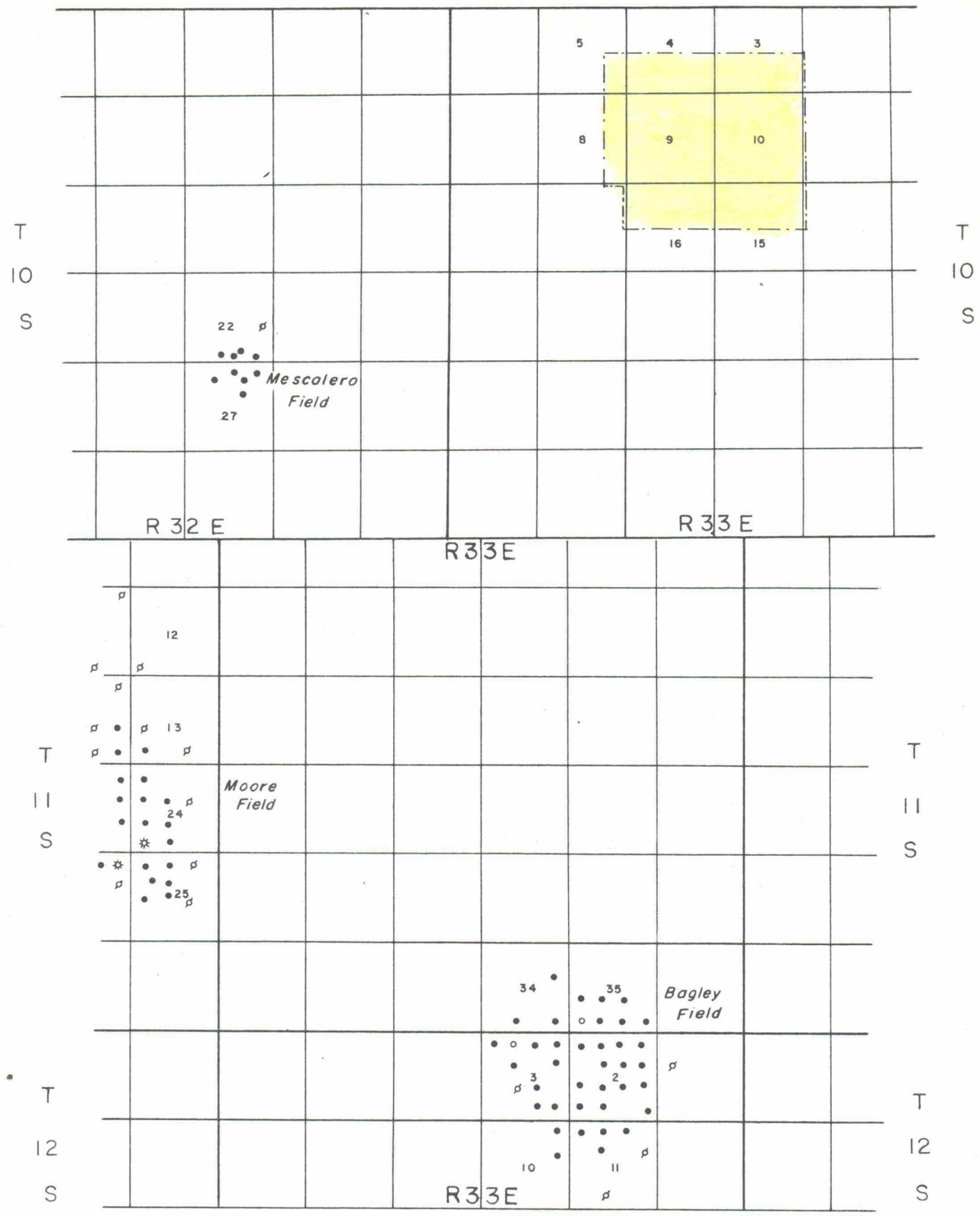
SEISMIC STRUCTURE MAP

HORIZON — DEVONIAN

CONTOUR INTERVAL - 75 FEET

—— Unit Outline

EXHIBIT 1



PROPOSED

LANE RANCH UNIT

-Legend-

Proposed Lane Ranch Unit

Scale - 1" = 8000'

ROSWELL DIVISION
ROSWELL, NEW MEXICO

CONTINENTAL OIL COMPANY
FEBRUARY 28, 1955

L. ALLEN