

August 19, 1959

Case 1747

This is an application of George L. Buckles Company, P. O. Box 387, Monahans, Texas, to establish a 49.82-acre non-standard oil proration unit by combining Lots 1 and 2 of Section 34, Township 26 South, Range 32 East, Lea County, New Mexico. The unit to be dedicated to Elliott-Federal Well No. 1, located 330 feet from the South and East lines of said Section 34.

Lot No. 1 contains 24.93 acres.

Lot No. 2 contains 24.89 acres.

The original lease, dated September 1, 1951, covering Lots 1 and 2 and other lands, was taken from the United States Department of Interior by Frank O. Elliott of Roswell, New Mexico. The primary term had been extended to August 31, 1961. George L. Buckles Company obtained drilling rights to the land by a Contract and Operating Agreement dated May 22, 1959. This Agreement was approved by the United States Department of Interior June 19, 1959. It was duly recorded in the records of Lea County, New Mexico, in Lovington August 7, 1959.

Certain drilling commitments were outlined in the Operating Agreement, whereby Operator was obligated to test each 40-acre sub-division assigned. However, Lots 1 and 2 of Section 34 were deemed to be a single 40-acre legal sub-division for drilling obligation purposes.

Elliott-Federal Well No. 1 was spudded June 26, 1959.

Total depth of 4,550 feet was reached July 9, 1959. The well was cored from 4,450 to 4,550 feet. Four and one-half inch O.D. casing was cemented on bottom. Casing was perforated from 4,450 to 4,466 feet. Perforations were acidized with 350 gallons. The well was potentialed on 12/64 inch choke through 2 inch EUE tubing on July 13, 1959. The well produced 52.21 barrels of oil and no water in 24 hours. GOR was <sup>2.41</sup> 475 cubic feet per barrel. The well was hydraulically fractured on July 23, 1959 with 1,500 gallons of lease crude and 1,500 pounds of 20 - 40 sand. The well is now capable of producing 52 barrels per day through a 6/64 inch choke.

The accumulation of oil in this Field is caused, in my opinion, to a stratigraphic or lithological trap wherein the permeability of the Delaware sandstone pinches out on the western or up-dip side of this Field. The permeability pinchout is at some unknown distance west of Federal-Elliott Well No. 1. This well is at present the highest well structurally in the New Mexico portion of the Field.

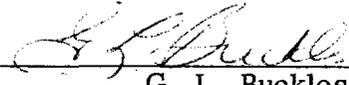
The Texas Railroad Commission has already designated 40-acre proration units in the El Mar (Delaware) Field, which offsets this acreage to the South.

There are four lots in the southern extremity of Section 34. The acreage by lots is as follows:

Lot 1	24.93 acres
Lot 2	24.89 "
Lot 3	24.85 "
Lot 4	<u>24.81</u> "
Total	99.48 "

The balance of Section 34 consists of two 80-acre tracts for a total of ~~256.48~~ <sup>256.48</sup> acres. There is room for only six 40-acre proration units with ~~16.48~~ <sup>16.48</sup> acres left over.

We respectfully request that these two small tracts be unitized into one proration unit in the interest of protecting correlative rights of the owners of the 9.82 acres of Lot No. 2 in excess of the amount required to form an even 40-acre unit by combining with Lot No. 1. We also request the unitization to prevent the drilling of an unnecessary well to the depth of approximately 4,550 feet.

  
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 G. L. Buckles

*Aug 19*

**George L. Buckles Company**  
MAIN OFFICE OCC OIL PRODUCTION CONSULTANTS

BOX 387  
1959 JUL 24 AM 8:17 Monahans, Texas

. July 21, 1959

*Case*  
*1747*

Mr. A. L. Porter, Jr.  
New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

Dear Mr. Porter:

On June 22, 1959 the U.S.G.S. in Hobbs approved our Notice of Intention to Drill our Elliott-Federal Well No. 1 in Lea County, New Mexico, and designated the lease number as L.C. 071985. The U.S. Bureau of Land Management in Santa Fe approved our Drilling and Operating Agreement June 19, 1959.

The well location is 330 feet from the East Line and 330 feet from the South Line of Section 34, Twp. 26-S, Rge. 32-E in the El Mar (Delaware) Field. The well location is on Lot No. 1 containing 24.93 acres.

Under our Operating Agreement dated May 22, 1959, Mr. Frank O. Elliott of Roswell, New Mexico, assigned to me Lots 1 and 2 and the NE/4 of the NE/4 of Section 34 and E/2 of the SE/4 of Section 27, all in Twp. 26-S, Rge. 32-E, Lea County, New Mexico.

Lot No. 2, which is adjacent to Lot No. 1 in Section 34, contains 24.89 acres.

It is our desire to unitize Lot No. 1 with Lot No. 2 to form one proration unit of approximately 50 acres (49.82 acres). This request is made to protect correlative rights and to prevent the drilling of unnecessary wells. If a hearing is required for an exception to Commission Rule 104, we request that it be set at your earliest convenience.

Drilling was started on Elliott-Federal Well No. 1 on June 26, 1959. It was drilled to a total depth of 4,550 feet and completed as a flowing Delaware well through perforations in 4-1/2 inch O.D. casing from 4,450 to 4,466 feet on July 12, 1959. The well was opened to tank on the morning of July 14, 1959. Potential test was taken for 24 hours through 12/64 inch choke from 3:00 p.m. July 19 until 3:00 p.m. July 20. Initial production was 52 barrels per day with 120 pound tubing pressure and 675 pound casing pressure. Gas-oil ratio was

*Hockett*  
*Filed 8-4-59*  
*J.P.*

Mr. A. L. Porter, Jr.  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

July 21, 1959

Page No. 2

475 cubic feet per barrel.

Completion forms are being prepared for the U.S.G.S. and the New Mexico  
Oil Conservation Commission.

Yours very truly,

A handwritten signature in cursive script, appearing to read "G. L. Buckles".

G. L. Buckles

GLB/s

CORE LABORATORIES, INC

*Petroleum Reservoir Engineering*

DALLAS, TEXAS

July 14, 1959

REPLY TO  
P. O. BOX 4337  
MIDLAND, TEXAS

George L. Buckles Company  
Box 387  
Monahans, Texas

Attention: Mr. George L. Buckles

Subject: Core Analysis  
Elliott-Federal No. 1 Well  
Lea County, New Mexico  
Location: Sec. 34-T26S-R32E

Gentlemen:

Delaware formation from 4451 to 4482 feet was analyzed to determine permeability, porosity and residual fluid saturations. The data obtained are presented in graphical and tabular forms on the attached Completion Coregraph. An additional reduced-scale graph, which has been drawn to the vertical scale of five inches equal 100 feet, also is presented. In accordance with the analysis service selected, no interpretation of probable production or further discussions concerning productive characteristics are given.

Formation was recovered from the subject well using diamond coring equipment and water base mud. Engineers of Core Laboratories, Inc. selected and quick-froze samples of the recovered formation as directed by a representative of George L. Buckles Company. These samples were transported to the Monahans laboratory for analysis by conventional procedures.

Thank you for this opportunity to be of service.

Very truly yours,

Core Laboratories, Inc.



R. S. Bynum, Jr.,  
District Manager

RSB:CWM:bd

10 cc. - Addressee