

Casa No.

1747

Application, Transcript,
Small Exhibits, Etc.

CONTINENTAL "Wilder"

27

26

OIL CONSERVATION COMMISSION

Pruchals EXHIBIT NO.

CASE NO. 1747

BUCKLES

80 Ac.

40 Ac.

34

35

US

2
24.89 Ac.

24.93 Ac.

Elliott-Federal
HILL & MEEKER

US

Trower

4

- PRODUCTION WELL
- PROPOSED PRODUCTION WELL
- ⊙ INJECTION WELL
- ⊕ PROPOSED INJECTION WELL
- ⦿ ABANDONED WELL
- ✱ DRY HOLE

N

SCALE: 1" = 1000'

Prepared By:
GEORGE L. BUCKLES CO.

GEORGE L. BUCKLES CO. LEASES
170 ACRES MORE OR LESS

SECTIONS 27 & 34,
T 26 S, R 32 E,
LEA COUNTY, NEW MEXICO

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 ⁴¹⁰475 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 ^{259.48}~~256.48~~ acres. There is room for only six 40-acre proration units
with ^{19.48}~~16.48~~ 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.


G. L. Buckles

OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

September 9, 1959

Mr. George L. Buckles
P. O. Box 387
Monahans, Texas

Dear Mr. Buckles:

We enclose herewith two copies of Order No. R-1479
issued by the Oil Conservation Commission on September
8, 1959 in Case No. 1747.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ir/

Enclosures

Copy sent to Hobbs

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 1747
Order No. R-1479

APPLICATION OF GEORGE L. BUCKLES
COMPANY FOR A NON-STANDARD OIL
PRORATION UNIT IN AN UNDESIGNATED
DELAWARE POOL, LEA COUNTY, NEW
MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on August 19, 1959, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 8th day of September, 1959, the Commission, a quorum being present, having considered the application the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, George L. Buckles Company, is the operator of a lease which includes Lots 1 and 2 of Section 34, Township 26 South, Range 32 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes the establishment of a 49.82-acre non-standard oil proration unit in an undesignated Delaware pool, consisting of the above-described Lots 1 and 2 of said Section 34.

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Case No. 1747
Order No. R-1479

(4) That the applicant proposes to dedicate said non-standard oil proration unit to its Elliott-Federal Well No. 1, located 330 feet from the South line and 330 feet from the East line of said Section 34.

(5) That the need for said non-standard oil proration unit is occasioned by a deviation in the United States Public Land Survey along the State line.

(6) That it would be uneconomical to drill one well on each of the aforesaid lots.

(7) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That a 49.82-acre non-standard oil proration unit in an undesignated Delaware pool consisting of Lots 1 and 2 of Section 34, Township 26 South, Range 32 East, NMPM, Lea County, New Mexico be and the same is hereby established. Said unit is to be dedicated to the Elliott-Federal Well No. 1, located 330 feet from the South line and 330 feet from the East line of said Section 34.

(2) That the allowable assigned to the above-described 49.82-acre non-standard oil proration unit shall bear the same ratio to a standard allowable in the same common source of supply as the acreage in said unit bears to the acreage in a standard unit in the same common source of supply.

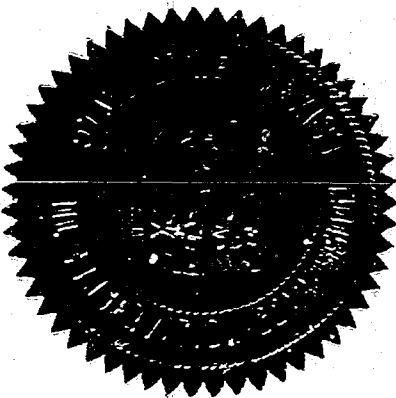
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

John Burroughs
JOHN BURROUGHS, Chairman

Murray E. Morgan
MURRAY E. MORGAN, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary



lcr

July 21, 1959

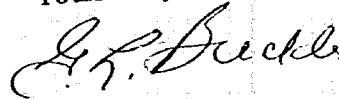
Mr. A. L. Porter, Jr.
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

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,



G. L. Buckles

GLB/s

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1747

TRANSCRIPT OF HEARING

AUGUST 19, 1959

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 3-6691

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BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
AUGUST 19, 1959

IN THE MATTER OF:

CASE 1747 Application of George L. Buckles Company for
a non-standard oil proration unit. Appli-
cant, in the above-styled cause, seeks the
establishment of a 49.82-acre non-standard
oil proration unit in an undesignated Dela-
ware pool consisting of lots 1 and 2 of Sec-
tion 34, Township 26 South, Range 32 East,
Lea County, New Mexico, said unit to be dedi-
cated to the applicant's Elliott-Federal Well:
No. 1, located 330 feet from the South and
East lines of said Section 34.

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: Take Case 1747.

MR. PAYNE: Case 1747. Application of George L. Buckles
Company for a non-standard oil proration unit.

MR. BUCKLES: I am George L. Buckles, and I have been
qualified and testified at previous hearings before the Commission.
As sole owner of George L. Buckles Company, which is the consulting
engineering firm and oil producer, and is the operator of the
property involved, I request that I be allowed to testify without
benefit of counsel.

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MR. PAYNE: The George L. Buckles is not a corporation, is it, Mr. Buckles?

MR. BUCKLES: No, it is solely owned individually.

MR. PAYNE: I will swear you in.

(Witness sworn)

GEORGE L. BUCKLES,
called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. PAYNE:

Q Will the witness please state his name and position?

A My name is George L. Buckles. I am sole owner of George L. Buckles Company located at Monahans, Texas.

This Company is the operator of the acreage involved in this hearing. This is Case 1747, involving the application of George L. Buckles Company to establish a 49.82-acre non-standard oil proration unit by combining Lots No. 1 and No. 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.

I would like to present in evidence a photostatic copy of an original survey made in September and October 1983 showing the acreage involved in this application.

(Thereupon, Buckles' Exhibit No. 1 was marked for identification.)

Q We will mark this Buckles' Exhibit No. 1.

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A I would like to present a large scale plat showing the same acreage colored in yellow.

MR. NUTTER: This will be marked as Exhibit No. 2.

(Thereupon, Buckles' Exhibit No. 2 was marked for identification.)

A I would like to present another plat showing the acreage owned in this field by the George L. Buckles Company, and the relationship of this well to other wells in the field.

MR. NUTTER: Is this the El Mar area, Mr. Buckles?

A In Texas it is called the El Mar Delaware Field. As far as I know, the Commission has not designated a field name in New Mexico.

Lot No. 1 contains 24.93 acres. This is the lot on which the well is located. Lot No. 2 contains 24.89 acres. Now, the original lease was dedicated September the 1st, 1951 covering Lots 1 and 2, and other lands. It was taken from the United States Department of Interior by Frank O. Elliott of Roswell, New Mexico. The primary term of the lease had been extended to August the 31st, 1961, and the George L. Buckles Company obtained drilling rights to the land by a contract and operating agreement dated May 22nd, 1959. This agreement was approved by the United States Department of Interior July 19, 1959, and it was recorded in the record of Lea County, New Mexico in Lovington, New Mexico August the 7th, 1959.

Due to the fact that Mr. Elliott retained some overriding

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royalty interests in this property, certain drilling commitments were outlined in the operating agreement, whereby the operator was obligated to test each 40-acre sub-division assigned. Total acreage assigned was approximately 170 acres. 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 9th, 1959. The well was cored from 4,450 to 4,550 feet. I would like to present in evidence a core analysis of the productive interval cored.

MR. NUTTER: This core analysis will be marked as Exhibit No. 4.

(Thereupon, Buckles' Exhibit No. 4 was marked for identification.)

A I would also like to present a final Exhibit of a gamma ray neutron log run on this same well.

MR. NUTTER: The log will be identified as Exhibit No. 5.

(Thereupon, Buckles' Exhibit No. 5 was marked for identification.)

A 4 1/2 inch OD casing was cemented on the bottom. This was perforated from 4,450 to 4,466 feet with four perforations per foot. These perforations were acidized with 350 gallons of acid. The well was potentialized on 12/64 inch choke through 2 inch EUE tubing on July 13th, 1959. The well produced 52.21 barrels of oil and no water in 24 hours. Gravity of the oil was approxi-

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 that the unitization -- this unitization to prevent the drilling of an unnecessary well to the depth of approximately 4,550 feet.

There is no evidence available that the entire acreage under Lots 1 and 2 are not productive from the Delaware Sand.

That's all I have unless there are some questions.

MR. NUTTER: Anyone have any questions of Mr. Buckles?

QUESTIONS BY MR. PAYNE:

Q Mr. Buckles, your Well No. 1 is 4,550 feet deep, is that correct?

A Yes, sir.

Q Now, what is the allowable in this pool in Texas?

A The allowable is 93 barrels per well per operated day.

MR. NUTTER: Is this pool still on the Texas yardstick?

A That, incidentally, is the Texas yardstick for that depth, yes, sir, on 40-acre spacing.

MR. NUTTER: What did they establish the allowable at?

A They established the allowable as 93 barrels per well on 40-acre proration units.

Q (By Mr. Payne) What is the present operating -- how many days can you operate in Texas now?

A Nine.

Q Is it nine?

A This month.

Q This well is 330 feet from the Texas line, is it not?

A Yes, sir.

Q Is the ownership in Lots 1 and 2 common throughout?

A Yes.

Q Do you hold a lease in Lots 3 and 4?

A No, sir. Our acreage is shown in yellow, which is Lots 1 and 2, the northeast 40 acres out of Section 34 and the east half of the southeast quarter, being 80 acres in Section 27 to the north. That's the New Mexico side of the Field.

Q Has the Commission approved a similar application for Hill & Meeker?

A I understand they have. I have no actual knowledge of it, however.

MR. PAYNE: That's all. Thank you.

QUESTIONS BY MR. NUTTER:

Q Mr. Buckles, do you think it would be economic to drill a well on each of these Lots?

A No, sir. If the proration is set on a 100 percent acreage basis, I believe that any additional oil produced by drilling of Well No. 2 would not be enough to justify drilling of the well.

Q Now, do you own Lots 3 and 4 also?

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A No, sir. They are under lease to Mr. Elliott.

Q Does the establishment of this 49.82-acre non-standard unit come closer to a 40-acre than it would be if you had each of these two Lots with a well on them?

A Yes.

Q Do you think that Lot No. 2 is productive of oil?

A Yes, sir.

Q Do you think that the well there in Lot No. 1 will adequately drain that oil?

A Well, I couldn't answer that without saying that I agree that one well would adequately drain 40 acres, but I will say that if the allowables are based on acreage alone, the two wells, one well drilled on Lot 1 and one well drilled on Lot 2, would not produce the total of the two wells -- would not be enough additional oil to pay for the drilling of Well No. 2.

MR. PAYNE: What you are relying on, Mr. Buckles, is drainage and counter-drainage in the event other wells are drilled in Section 34, isn't that right?

A Yes, and I also believe that this Field, since both wells would be allowed to produce the same amount of oil as one well, that by the time the bottom hole pressure in the Field reached the stage that it was a stripper production, that very little additional oil would be produced from the second well, and that, only during the stripper stages of the lease.

Q (By Mr. Payne) Mr. Buckles, are you of the opinion

that this is one common source of supply, the portion in Texas and in New Mexico?

A I believe it is, yes, sir.

Q Did you feel it would be better to prorate this on the basis -- prorated the same way in each state?

A I think it would be more equitable for the entire Field to prorate it the same, yes, sir.

MR. NUTTER: You feel that the area up here in Sections 25 and 36 where there is a cluster of wells, and also this area down in Sections 4 and 9 and 3 and 10, as well as your well up here in Section 34 are all producing from a common source of supply?

A I think so. I will admit that some geologists are of the opinion that there may be two reservoirs, but there is nothing to indicate that it is not of a common reservoir. The structure dip is about 100 feet per mile east and slightly northeast, and there is nothing I have seen to indicate that there isn't a continuity of this particular structure across the state line into New Mexico and Texas.

MR. NUTTER: Have there been any dry holes drilled in these intervening sections?

A No, there has been one dry hole at the extremity of the New Mexico portion of the Field. However, it was the furthest well to the north and west in New Mexico. There have been two dry holes drilled in the west portion of the Texas side of the Field.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

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I, J. A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 5th day of September, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1747, heard by me on 8-19, 1959.

[Signature], Examiner
New Mexico Oil Conservation Commission

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

12

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WITNESS my Hand and Seal this, the 5th day of September 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

J. A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1747, heard by me on 8-19, 1959.

[Signature], Examiner
New Mexico Oil Conservation Commission

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.
R. S. Bynum, Jr.,
District Manager

RSB:CWM:bd
10 cc. - Addressee

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

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Elliott-Federal No. 1 Well
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Core Laboratories, Inc.

R. S. Bynum Jr.
R. S. Bynum, Jr.,
District Manager

RSB:CWM:bd
10 cc. - Addressee

George L. Buckles Company
MAIN OFFICE OCC OIL PRODUCTION CONSULTANTS
BOX 387

1959 JUL 24 AM 8:17 Monahans, Texas

July 21, 1959

Aug 19

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

Revised
Miles 8-4-59
JH