2868

tion, Transcript,

Exhibits, Etc.

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

August 1, 1963

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1713
Santa Fe, New Mexico

Dear Mr. Kellahin:

Enclosed herewith is Commission Order No. R-2535, entered in Case No. 2867, approving the George L. Buckles Company Langlie Mattix Waterflood Project.

According to our calculations, when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 294 barrels per day.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe Office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

COPY

ALP/ir

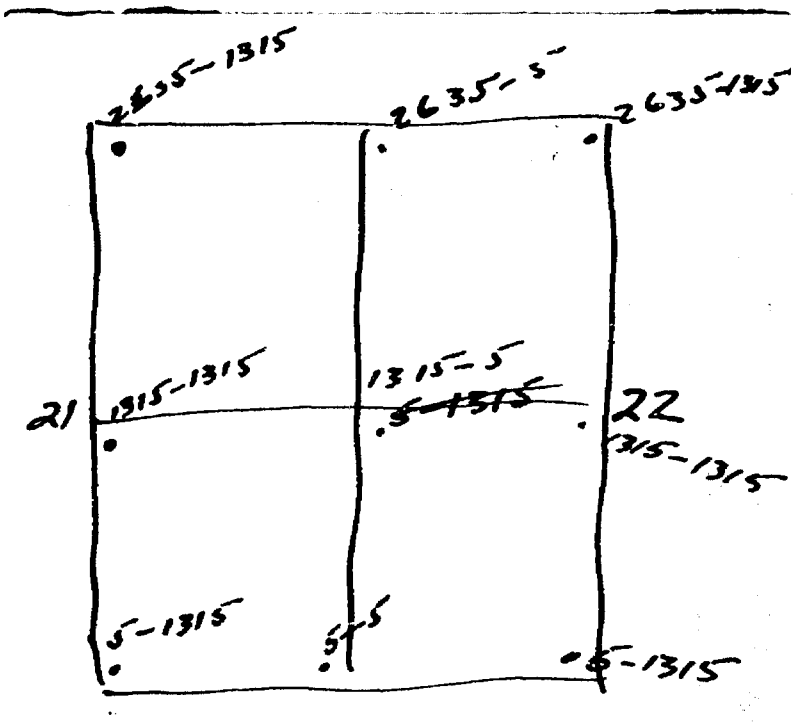
Enclosures

21:

2635 FSL 1315 FEL
1315 FSL 1315 FEL
5 FSL 1315 FEL
5 FSL 5 FEL

22:

2635 FSL 5 FWL
2635 FSL 1315 FWL
1315 FSL 5 FWL
1315 FSL 1315 FWL
5 FSL 1315 FWL


2635-1315
2635-5
2635-1315
21
1315-1315
1315-5
5-1315
22
315-1315
5-1315
5-5
5-1315

DRAFT

JMD/esr

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. 2867

Order No. R- 2535

APPLICATION OF GEORGE L. BUCKLES
COMPANY FOR A WATERFLOOD PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 24, 1963 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 _____ day of July m, 1963, 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, seeks permission to institute a waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through nine wells to be drilled on its Knight Lease comprising the E/2 SE/4 of Section 21 and the W/2 SW/4 of Section 22, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project is in the interest of conservation and should result in recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That the subject application should be approved and the project should be governed by the provisions of Rule 701 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, George L. Buckles Company, is hereby authorized to institute a waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through ~~the following described~~ to be drilled nine wells on its Knight Lease comprising the E/2 SE/4 of Section 21 and the W/2 SW/4 of Section 22, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico at the following locations:

~~[illegible]~~

Section 21

1) 2635 feet from the South line and 1315 feet from the East line

2) 1315 feet from the South line and 1315 feet from the East line

3) 5 feet from the South line and 5 feet from the East line

~~4) 5 feet from the South line and 1315 feet from the East line~~

Section 22

1) 2635 feet from the South line and 1315 feet from the West line

2) 2635 " " " " " " 5 feet from the " "

3) 1315 " " " " " " 1315 " " " " " "

4) 5 " " " " " " " " " " " "

5) 1315 " " " " " " 5 " " " " "

(2) That the subject waterflood project shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including the allowable provisions thereof, and including the provisions with respect to expansion of the waterflood project.

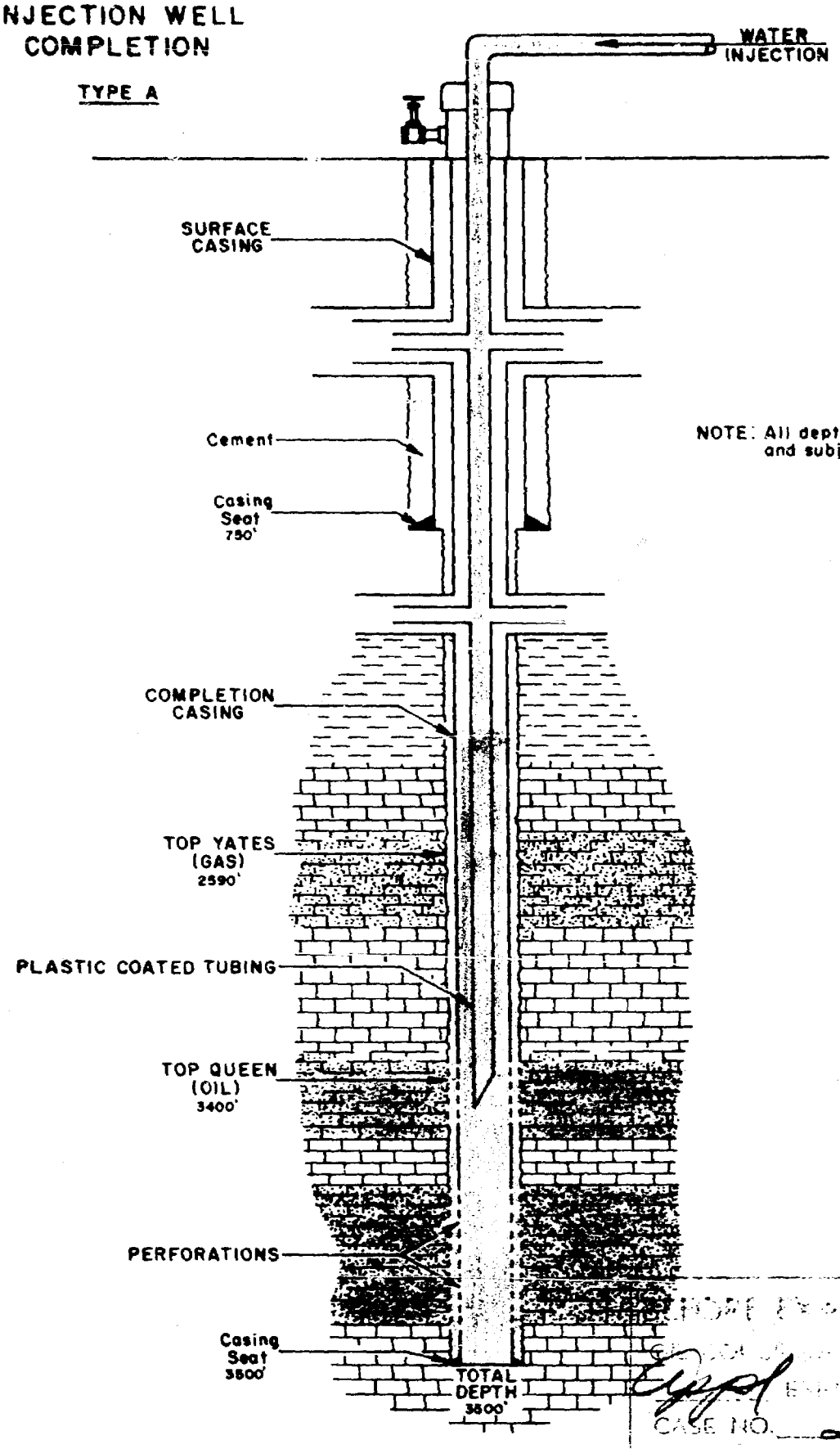
(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

TYPICAL INJECTION WELL COMPLETION

TYPE A



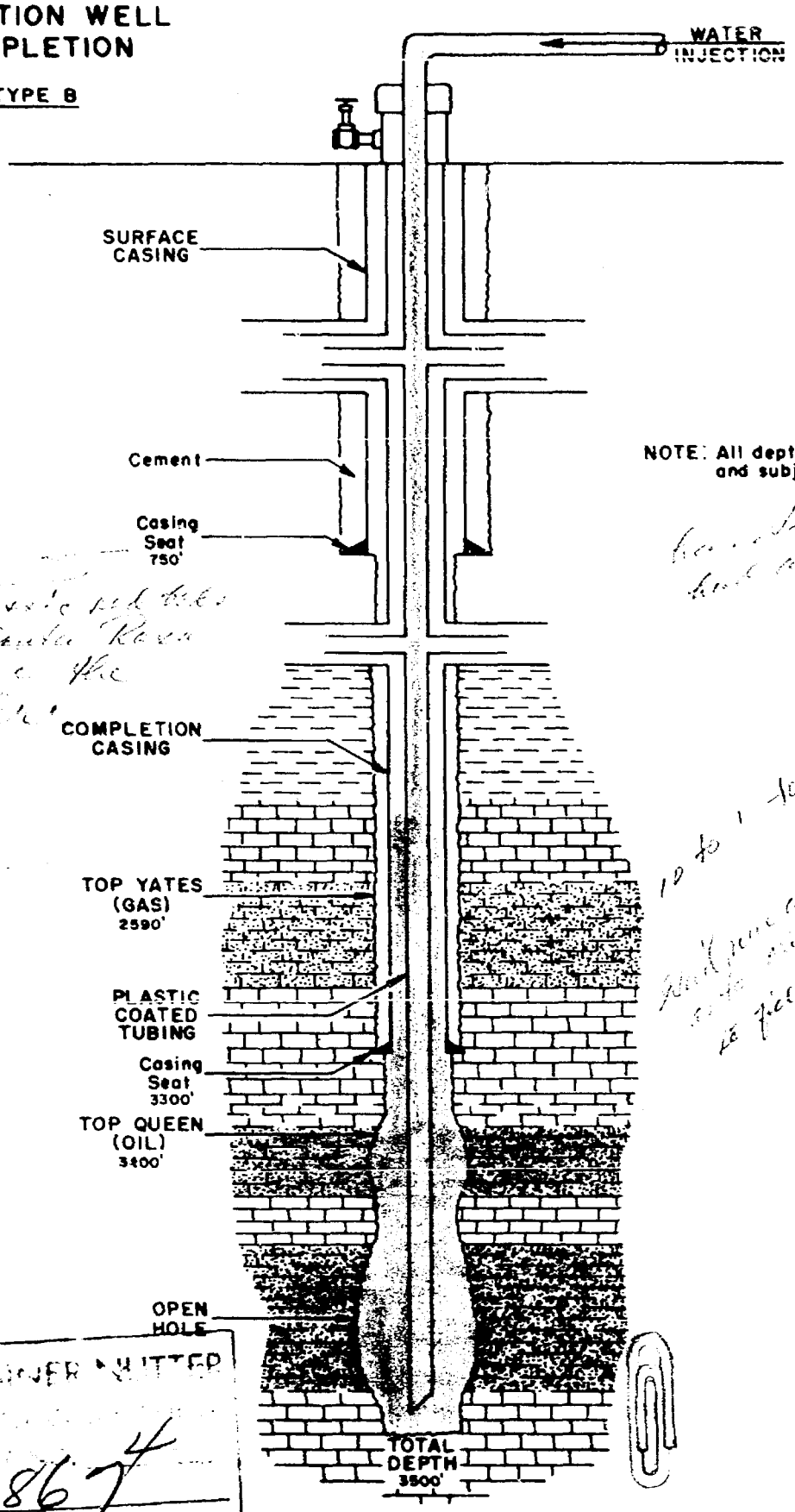
NOTE: All depths approximated and subject to change.

[illegible] EXHIBIT [illegible]

CASE NO. 2867

TYPICAL INJECTION WELL COMPLETION

TYPE B



NOTE: All depths approximated and subject to change.

BEFORE EXAMINER NUTTER
CASE NO. Appl 2867

APPLICATION OF GEORGE L. BUCKLES COMPANY FOR A

WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO

CASE NO. 2867 - JULY 24, 1963

NAME OF FIELD - Langlie-Mattix

LOCATION - Knight Lease - Being the W/2 of the SE/4 of Section 22, and the E/2 of the SE/4 of Section 21, T-24-S, R-37-E, and containing 160 acres, more or less

RESERVOIR - Queen Sand

PRESENT STATUS OF THE LEASE - The lease now has four producing oil wells operated by pumping units with electric power. Current production is 39 barrels of oil per day and no water. Average total depth of wells 3,500 feet. Casing setting on present wells averages 3,260 feet. Accumulated oil production from the lease was 752,894 barrels at July 1, 1963. Gravity of oil is 36° API.

PLAN OF DEVELOPMENT - The plan is to drill nine water injection wells. One well is to be drilled in the center of the lease, one well in each corner of the lease and one well on each side of the lease. All line injection wells are to be drilled as close to the lease line as possible but on the Knight lease.

The plan is to drill the center well first with cable tools. Surface casing will be set through all encountered

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 2867

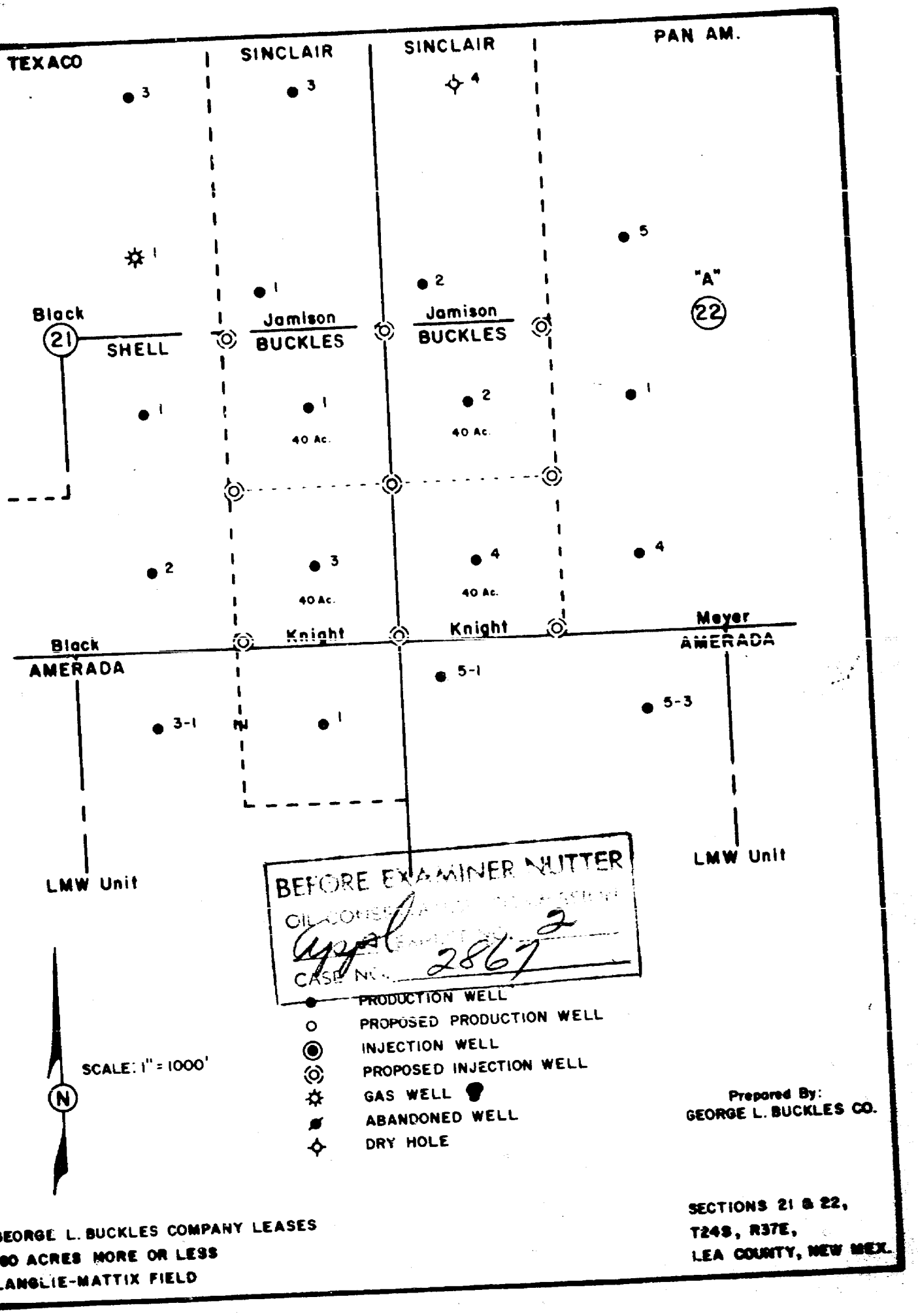
fresh water zones and cemented to the surface. The Rustler salt water is expected to be encountered at approximately 1,100 feet. It will be tested for possible flood water use.

All oil and gas zones will be tested to determine the proper casing setting for the injection wells. If conditions encountered are favorable, the plan is to set the long string of casing at or near the top of the oil bearing zones and complete open hole. If any conditions are encountered that would appear detrimental to an open hole completion, the plan is to set through and selectively perforate. Such conditions might be the presence of possible thief zones or shale streaks that may swell upon contact with water.

The other injection wells will be drilled with rotary tools and casing settings will be dictated by information gathered in drilling the first well. Some type of log will be run in each well for correlation purposes.

Initial injection rates are expected to be 300 barrels per well per day. Later rates will be dictated by performance and proration.

Plans are to build a water plant capable of furnishing water for all of the nine injection wells.


TEXACO
SINCLAIR
SINCLAIR
PAN AM.
3
3
4
1
1
2
5
"A"
22
Black
21
SHELL
Jamison
BUCKLES
Jamison
BUCKLES
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1
2
40 Ac.
40 Ac.
2
3
4
40 Ac.
40 Ac.
4
Knight
Knight
Meyer
AMERADA
Black
AMERADA
5-1
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1
LMW Unit
LMW Unit
BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
CASE NO. 2867
PRODUCTION WELL
PROPOSED PRODUCTION WELL
INJECTION WELL
PROPOSED INJECTION WELL
GAS WELL
ABANDONED WELL
DRY HOLE
SCALE: 1" = 1000'
N
Prepared By:
GEORGE L. BUCKLES CO.
GEORGE L. BUCKLES COMPANY LEASES
160 ACRES MORE OR LESS
LANGLIE-MATTIX FIELD
SECTIONS 21 & 22,
T24S, R37E,
LEA COUNTY, NEW MEX.

No. 21 63

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 24, 1963

9:00 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, as alternate examiner:

CASE 2864: Application of Midwest Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Custer Mountain Unit Area comprising 11,523.68 acres of State, Federal and Fee lands in Township 24 South, Range 35 East, Lea County, New Mexico.

CASE 2865: Application of Humble Oil & Refining Company for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in the Gallup formation underlying its Navajo "G" lease in Sections 1, 2, 11 and 12, Township 31 North, Range 17 West, San Juan County, New Mexico. Initial injection will be through applicant's Well No. 16 located in Unit G of said Section 1. Applicant further seeks the promulgation of special rules governing the operation of said project.

CASE 2866: Application of Humble Oil & Refining Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (com[illegible]tion) of its State "BV" Well No. 1, located in Unit A of Section 18, Township 18 South, Range 35 East, Lea County, New Mexico, to produce oil from the Bone Springs and Devonian formations through parallel strings of 2 7/8 inch casing and 4 1/2 inch casing cemented in a common well bore.

CASE 2867: Application of George L. Buckles Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through nine wells on its Knight lease comprising the E/2 SE/4 of Section 21, W/2 SW/4 of Section 22, Township 24 South, Range 37 East, Lea County, New Mexico.

CASE 2868: Application of Continental Oil Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 48.99-acre non-standard oil proration unit comprising Lots 2 and 3, Section 31, Township 26 South, Range 32 East, North Mason-Delaware Pool, Lea County, New Mexico, to be dedicated to its Russell Federal 31 Well No. 1, located in Lot 3 of said Section 31.

CASE 2841: (Cont'd from June 26,1963) Application of Shell Oil Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to drill its Middleton Federal Well No. B-1 at an unorthodox location 660 feet from the North and West lines of Section 31, Township 19 South, Range 32 East, Lusk-Morrow Gas Pool, Lea County, New Mexico.

CASE 2850: (Continued from July 10, 1963 examiner hearing)
Application of Shell Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the East Pearl-Queen Unit Area comprising 2440 acres of State and Fee lands in Township 19 South, Range 35 East, Lea County, New Mexico.

CASE 2851: (Continued from July 10, 1963 examiner hearing and readvertised)
Application of Shell Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its East Pearl Queen Unit by the injection of water into the Queen formation through 31 wells in Sections 15, 21, 22, 26, 27, 28, 34, and 35, Township 19 South, Range 35 East, Lea County, New Mexico.

CASE 2869: Application of Marathon Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its State Warn A/c 3 Well No. 5, located in Unit H of Section 33, Township 17 South, Range 35 East, Lea County, New Mexico, to produce from the Vacuum-Abo Reef Pool and either an undesignated Blinebry or Glorieta pool through parallel strings of 2 1/16" OD tubing.

CASE 2870: Application of J. Gregory Merrion & Associates for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Basin-Dakota Gas Pool underlying the S/2 of Section 34, Township 25 North, Range 6 West, Rio Arriba County, New Mexico.

George L. Buckles Company
OIL PRODUCTION
CONSULTANTS · OPERATORS
Monahans, Texas
PHONE WILSON 3-2756

June 26, 1963

New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

Gentlemen:

It is respectfully requested that a hearing be scheduled for application for permit to conduct secondary recovery operations by water injection on our Knight lease in the Langlie-Mattix Field, in Lea County, New Mexico. The lease consists of the E/2 of the SE/4 of Section 21, and the W/2 of the SW/4 of Section 22, T-24-S, R-37-E, and contains 160 acres more or less.

Enclosed is a plat showing the present status of the lease, the surrounding area and the location of the proposed injection wells. There are, at the present time, four pumping producing wells located in the center of regular 40-acre proration units.

It is our plan to drill nine injection wells and enclose the four presently producing wells in four 40-acre 5-spot patterns. Due to the present lack of information concerning core data, possible thief zones and well damage in the producing wells, it is felt that the increase in ultimate recovery would justify drilling all injection wells. In this manner, the injected water can be confined to the oil producing zones and flood efficiency should be greatly improved. Eight of the injection wells will be drilled as close to the property lines as possible but on our Knight lease. One well will be drilled at each corner of the lease, one on each side of the lease, and the ninth well in the center of the lease.

Present plans are to drill the first well in the center of the lease with cable tools. This will be a test well to evaluate the waterflood possibilities. We will be able to test all formations as they are encountered. Casing point to protect all fresh water zones can be accurately determined. Quality and quantity of injection water can also be determined. All potential gas and oil bearing zones can be tested to eliminate exposing thief zones in the injection wells.

Surface casing will be set to a depth sufficient to protect all fresh water zones (approximately 700 feet). This exact depth will be determined while drilling our center well. The long string of casing will either be set just above the top of the oil producing zone or set through if there is any indication of thief zones below the top of the oil pay zone. The approximate depth of the casing setting will be 3,400 feet. Cementing and testing will be in accordance with Commission regulations.

DOCKET MAILED
Date 7/12/63

June 26, 1963

New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

Water injection will be into the Queen sand at depths from 3,450 feet to 3,550 feet. Present plans are to use Rustler salt water for injection purposes, if it can be found in sufficient quantities. The Rustler is expected to be encountered from 1,100 feet to 1,200 feet. Injection rates are anticipated to be 300 barrels per day per well at the start of injection. Injection rates, after waterflood oil is being produced, will be dictated somewhat by allowables.

All offset operators, including the Amerada Woolworth Unit offsetting the Knight lease to the south, have been advised of our intentions.

Please let us know if additional information is required before the hearing is scheduled.

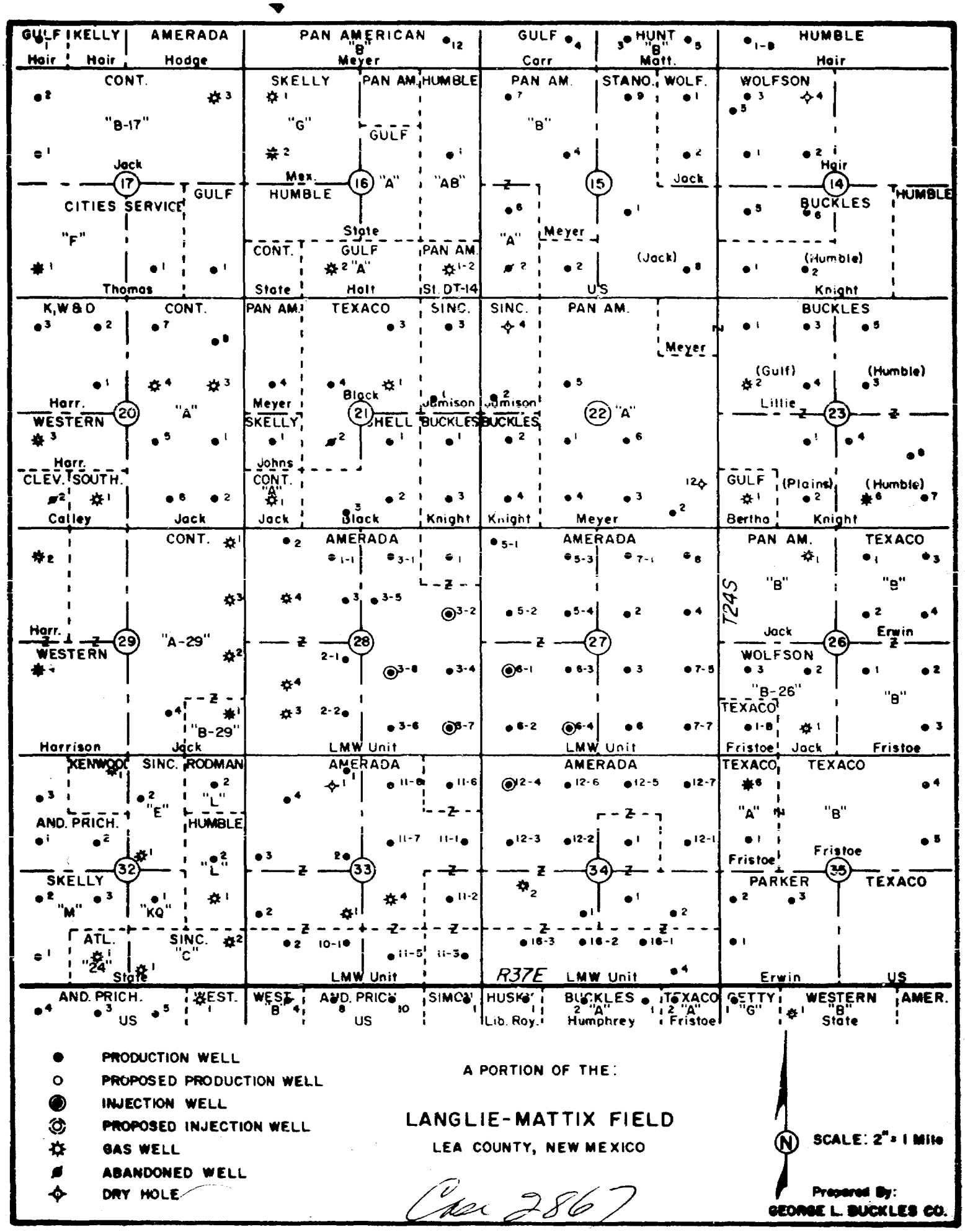
Yours very truly,

George L. Buckles

George L. Buckles

GLB/b

Enclosure - Plat


GULF Hair
KELLY Hair
AMERADA Hodge
PAN AMERICAN "B" Meyer
GULF Carr
HUNT "B" Matt.
HUMBLE Hair
CONT.
"B-17"
Jack
17
GULF
CITIES SERVICE
"F"
Thomas
SKELLY
"G"
PAN AM.
HUMBLE
GULF
Mex.
HUMBLE
16
"A"
"AB"
State
CONT.
State
GULF
"A"
Holt
PAN AM.
St. DT-14
PAN AM.
"B"
"A"
Meyer
15
STANO.
WOLF.
Jack
(Jack)
US
WOLFSON
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14
BUCKLES
HUMBLE
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Knight
K,W&D
CONT.
Harr.
WESTERN
20
"A"
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CLEV. SOUTH.
Calley
Jack
PAN AM.
TEXACO
SINC.
Meyer
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21
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BUCKLES
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CONT. "A"
Jack
Black
Knight
SINC.
PAN AM.
Jamison
BUCKLES
22
"A"
Meyer
Knight
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BUCKLES
(Gulf)
(Humble)
Lillie
23
GULF
(Plains)
(Humble)
Bertha
Knight
CONT.
"A-29"
Harr.
WESTERN
29
"B-29"
Harrison
Jack
AMERADA
28
LMW Unit
AMERADA
27
LMW Unit
PAN AM.
TEXACO
"B"
"B"
T24S
Jack
26
Erwin
WOLFSON
"B-26"
"B"
TEXACO
Fristoe
Jack
Fristoe
KENWOOD
SINC.
RODMAN
"E"
"L"
AND. PRICH.
HUMBLE
"L"
32
SKELLY
"M"
"KQ"
ATL.
"24"
State
SINC.
"C"
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LMW Unit
AMERADA
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R37E
LMW Unit
TEXACO
"A"
"B"
Fristoe
Fristoe
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PARKER
TEXACO
Erwin
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AND. PRICH.
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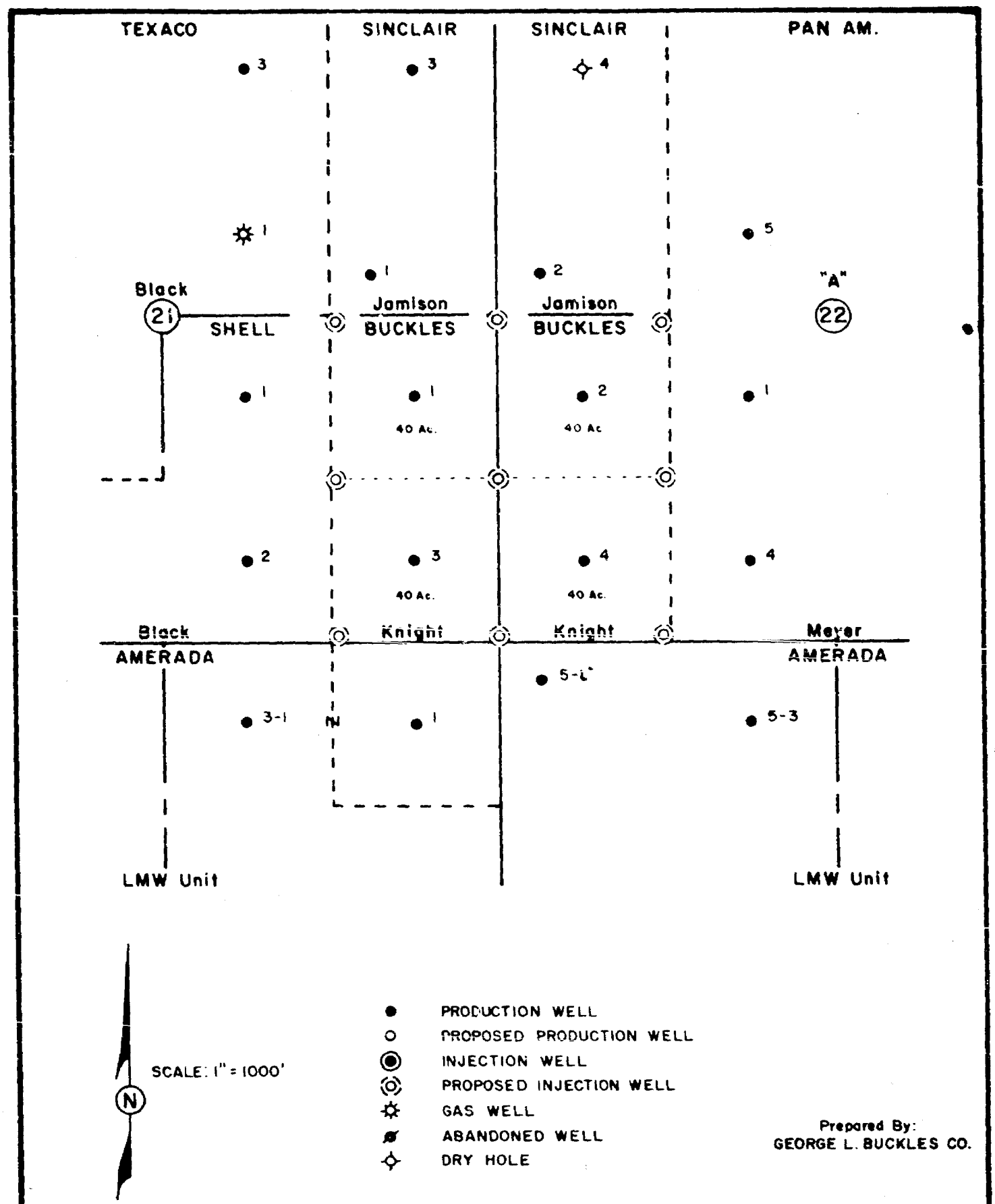
WEST.
WEST.
AND. PRICE
US
SIMCO
HUSKY
Lib. Roy.
BUCKLES "A"
Humphrey
TEXACO "A"
Fristoe
GETTY "G"
WESTERN "B"
State
AMER.
PRODUCTION WELL
PROPOSED PRODUCTION WELL
INJECTION WELL
PROPOSED INJECTION WELL
GAS WELL
ABANDONED WELL
DRY HOLE
A PORTION OF THE:
LANGLIE-MATTIX FIELD
LEA COUNTY, NEW MEXICO
Case 2867
N
SCALE: 2" = 1 Mile
Prepared By:
GEORGE L. BUCKLES CO.


TEXACO
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SINCLAIR
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BUCKLES
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Black
AMERADA
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LMW Unit
LMW Unit
SCALE: 1" = 1000'
N
PRODUCTION WELL
PROPOSED PRODUCTION WELL
INJECTION WELL
PROPOSED INJECTION WELL
GAS WELL
ABANDONED WELL
DRY HOLE
Prepared By:
GEORGE L. BUCKLES CO.
GEORGE L. BUCKLES COMPANY LEASES
160 ACRES MORE OR LESS
LANGLIE-MATTIX FIELD
Case 2867
SECTIONS 21 & 22,
T24S, R37E,
LEA COUNTY, NEW MEX.

Memo

From
D. S. NUTTER
CHIEF ENGINEER

To

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 871
SANTA FE

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1713
Santa Fe, New Mexico

_____, 19____

Gentlemen:

Enclosed herewith is Commission Order No. R-2535, entered in Case No. 2867, approving the George L. Buckles Company Langlie Mattix Water Flood Project.

According to our calculations, when all of the authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 294 barrels per day.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the Commission and the appropriate District proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

cc: Hobbs OCC

A. L. PORTER, Jr.
Secretary-Director

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. 2867
Order No. R-2535

APPLICATION OF GEORGE L. BUCKLES
COMPANY FOR A WATERFLOOD PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 24, 1963, 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 31st day of July, 1963, 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, seeks permission to institute a waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through nine wells to be drilled on its Knight Lease comprising the E/2 SE/4 of Section 21 and the W/2 SW/4 of Section 22, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project is in the interest of conservation and should result in recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That the subject application should be approved and the project should be governed by the provisions of Rule 701 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, George L. Buckles Company, is hereby authorized to institute a waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through nine wells to be drilled on its Knight Lease comprising the E/2 SE/4 of Section 21 and the W/2 SW/4 of Section 22, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico, at the following locations:

Section 21

(1) 2635 feet from the South line and 1315 feet from the East line

(2) 1315 feet from the South line and 1315 feet from the East line

(3) 5 feet from the South line and 5 feet from the East line

(4) 5 feet from the South line and 1315 feet from the East line

Section 22

(1) 2635 feet from the South line and 1315 feet from the West line

(2) 2635 feet from the South line and 5 feet from the West line

(3) 1315 feet from the South line and 1315 feet from the West line

(4) 5 feet from the South line and 1315 feet from the West line

(5) 1315 feet from the South line and 5 feet from the West line

(2) That the subject waterflood project shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including the allowable provisions thereof, and including the provisions with respect to expansion of the waterflood project.

(3) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M Campbell

JACK M. CAMPBELL, Chairman

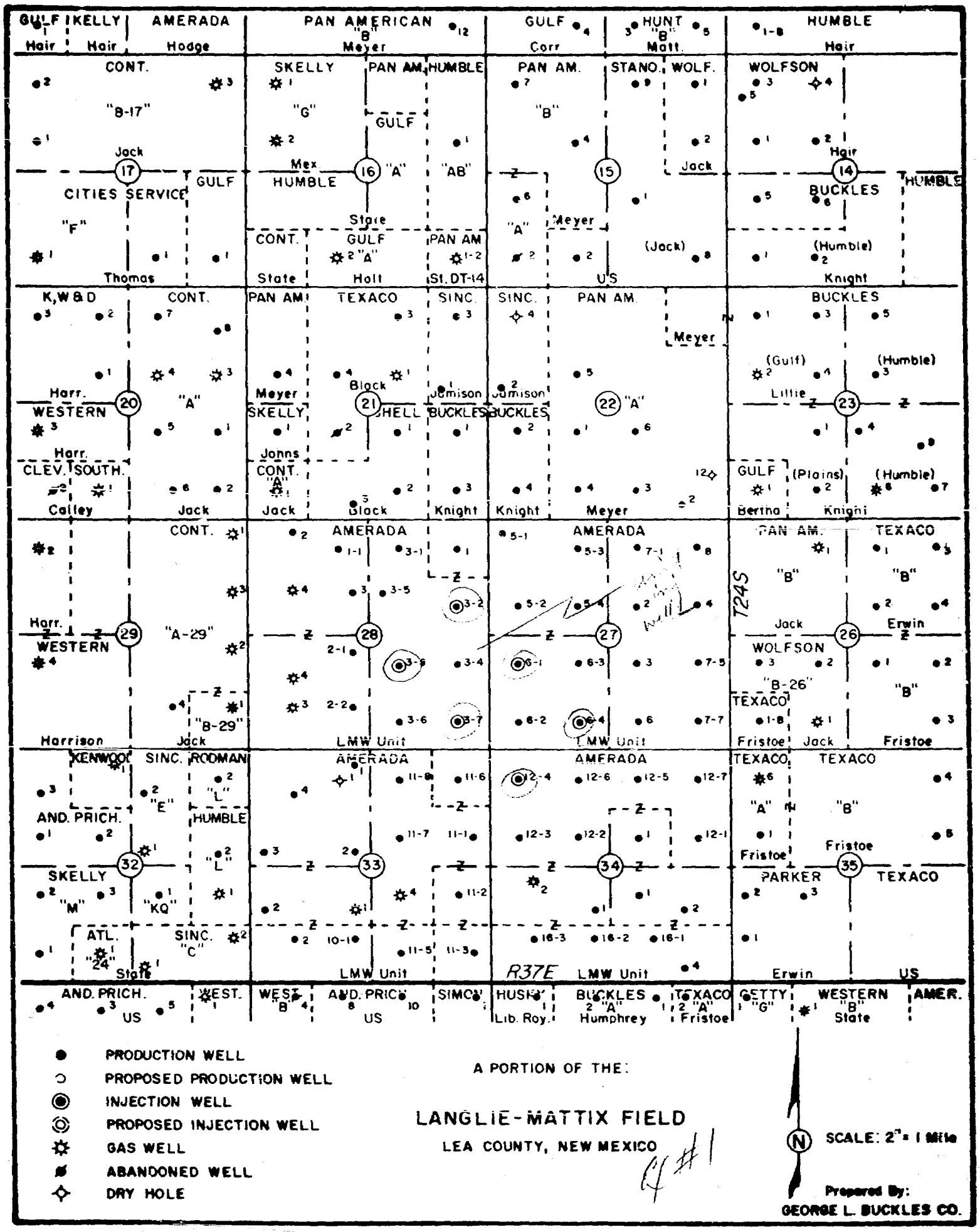
E. S. Walker

E. S. WALKER, Member

A. L. Porter, Jr.

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

esr/


GULF
KELLY
AMERADA
Hair
Hair
Hodge
PAN AMERICAN
"B"
Meyer
GULF
Corr
HUNT
"B"
Matt.
HUMBLE
Hair
CONT.
"B-17"
Jack
17
GULF
CITIES SERVICE
"F"
Thomas
SKELLY
PAN AM.
HUMBLE
"G"
GULF
Mex
HUMBLE
16
"A"
"AB"
State
CONT.
GULF
PAN AM
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St. DT-14
PAN AM.
STANO.
WOLF.
"B"
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Meyer
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Jack
(Jack)
WOLFSON
Hair
14
BUCKLES
HUMBLE
(Humble)
Knight
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CONT.
Harr.
WESTERN
20
"A"
Harr.
CLEV. SOUTH.
Calley
Jack
PAN AM.
TEXACO
SINC.
Meyer
Black
21
SKELLY
SHELL
Jonns
CONT.
"A"
Jack
Black
Knight
SINC.
PAN AM.
Meyer
Jamison
Jamison
BUCKLES
BUCKLES
22
"A"
Knight
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BUCKLES
(Gulf)
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Lillie
23
GULF
(Plains)
(Humble)
Bertha
Knight
CONT.
Harr.
WESTERN
29
"A-29"
"B-29"
Harrison
Jack
AMERADA
28
LMW Unit
AMERADA
27
LMW Unit
PAN AM.
TEXACO
"B"
"B"
Jack
Erwin
26
WOLFSON
"B-26"
TEXACO
Fristoe
Jack
Fristoe
"B"
KENWOOD
SINC.
RODMAN
AND. PRICH.
"E"
"L"
HUMBLE
32
SKELLY
"M"
"KQ"
"L"
ATL.
"24"
State
SINC.
"C"
AMERADA
33
LMW Unit
AMERADA
34
LMW Unit
TEXACO
TEXACO
"A"
"B"
Fristoe
Fristoe
PARKER
35
TEXACO
Erwin
US
AND. PRICH.
US
WEST.
WEST
"B"
AND. PRICH.
US
SIMCO
HUSH
Lib. Roy.
BUCKLES
"A"
Humphrey
TEXACO
"A"
Fristoe
GETTY
"G"
WESTERN
"B"
State
AMER.
T24S
R37E
PRODUCTION WELL
PROPOSED PRODUCTION WELL
INJECTION WELL
PROPOSED INJECTION WELL
GAS WELL
ABANDONED WELL
DRY HOLE
A PORTION OF THE:
LANGLIE-MATTIX FIELD
LEA COUNTY, NEW MEXICO
N
SCALE: 2" = 1 Mile
Prepared By:
GEORGE L. BUCKLES CO.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 24, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of George L. Buckles Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie Mattix Pool by the injection of water into the Queen formation through nine wells on its Knight lease comprising the E/2 SE/4 of Section 21, W/2 SW/4 of Section 22, Township 24 South, Range 37 East, Lea County, New Mexico.

Case No. 2867

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 24, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of George L. Buckles Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through nine wells on its Knight lease comprising the E/2 SE/4 of Section 21, W/2 SW/4 of Section 22, Township 24 South, Range 37 East, Lea County, New Mexico. CASE 2867

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 2867.

MR. DURRETT: Application of George L. Buckles for a waterflood project, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, representing the applicant, and we have one witness we would like to have sworn, please.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Nos. 1 through 5 marked for identification.)

GEORGE L. BUCKLE

called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A George L. Buckles.

Q What connection do you have with the George L. Buckles Company, applicant in this case?

A I own the George L. Buckles Company. It's just an operating company for my production.

Q Are you familiar with the application in Case 2867?

A Yes, I am.

Q Would you state briefly what's proposed by George L. Buckles Company in this application?

A This lease we propose to flood is known as the Knight lease in the Langlie-Mattix Field. It's composed of the West Half of the Southwest Quarter of Section 22, and the East Half of the Southeast Quarter of Section 21, Township 24 South, Range 37 East. The lease has four producing wells at the present time operated by pumping units and electric motors.

Q Referring to what has been marked as Exhibit No. 1, would you identify that exhibit and state what's shown on there?

A This is the exhibit that we sent with the application. It was our understanding that the Commission wanted a plat drawn approximately two miles each direction from the proposed area. This plat reflects the status of the area as reflected by our maps. The lease is shown in yellow on the plat. It shows all offset

operators: Shell to the west, Texaco to the northwest, Sinclair to the north, Pan American to the east, and the Amerada Woolworth Unit being four sections to the south, Sections 27, 28, 33, 34.

Q The Amerada Woolworth Unit is under waterflood at the present time, is it not?

A Yes. You will note on the plat that there are six wells circled to designate injection wells, and water is being injected into these six wells at the present time.

Q In your opinion, will injection of water, as you are going to propose in this case, have any adverse effect on the Amerada flood?

A No, sir.

Q Referring to what has been marked as Exhibit No. 2, would you identify that exhibit and discuss the information shown on it, please?

A This is merely a smaller scale plat showing the area enlarged, that is, the lease area enlarged. It's also colored in yellow. The circled locations are our proposed water injection wells to be drilled, one well in the center of the lease, one well, in each corner of the lease, and one well on each side of the lease centrally located, all wells being as close to the lease line as possible with the exception of the center well, but on the Knight lease. This will result in four 40-acre five-spot patterns.

Q Have you contacted the offset operators in connection with this?

A Yes, verbally and by letter. Shell and Texaco, Sinclair and Pan American.

Q And you have no arrangement with Amerada, is that correct?

A No, sir.

Q Referring to what has been marked as Exhibit No. 3, would you identify that exhibit, please?

A This exhibit merely states the facts and the proposals. I have already given the description of the lease which is shown at the top of Exhibit 3. It is shown as being in the Langlie-Mattix Field. The reservoir is the Queen sand. I've already stated the lease has four producing wells. The current production is 39 barrels of oil per day and no water. The average total depth of the wells is 3500 feet. The casing setting on the present wells averages 3,260 feet. The accumulated oil production, according to our records, from the entire lease as of July 1st, 1963, was 752,894 barrels. The gravity of the oil is 36 degrees API.

We have no well logs on the wells other than the old cable tool well logs, and our plan is to drill the nine water injection wells, as I have already mentioned. The first well is to be drilled with cable tools in the center of the lease. This is for the purpose of gaining information on the reservoir characteristics and try to determine the best way to flood the Queen sand in the Langlie-Mattix Field. It is our intention to drill through all fresh water sands, which would include the Santa Rosa

formation, to set casing and cement to the surface through all of these fresh water sands; then to test the casing for possibly going on down and encountering the Rustler formation at approximately 1100 feet, which is known to be a brine water, saturated salt water, and test that water zone for possible flooding purposes.

We drilled a well two and a half miles south of this lease and encountered the Rustler at about that same depth and tested it at about 2500 barrels per day with a drawdown to 700 feet from the surface, which left us another 400 feet to go without drawing clear down to the top of the Rustler formation; and if we encounter the Rustler formation here with the same quality of water that we found down there, we feel that we will have sufficient water to flood all of these nine wells with one water well.

Q What volume of water do you anticipate you'll use, Mr. Buckles?

A Our anticipated injection rate at the present time is 300 barrels per well per day, which may be changed. We felt that it would be a simple matter to construct a water plant capable of putting out about 2700 barrels of water a day with one pump and one water well. If indications are that that is entirely too slow a rate, we may -- and we encounter a large quantity of water, we may put in two pumps and go as high as five barrels a day injection rate, but we do intend to go to 300 barrels per day per well. The later injection rate will be dictated by performance

and, of course, proration problems.

Q In connection with the drilling of this initial well, you will test all zones, will you not?

A That is really the purpose for drilling this well with cable tools. Since we do not have definite information in the area as to the condition of the formation from the top of the Queen zone to the bottom, we will test these zones as we go through them. We intend to go through what is known as the Jalmat Gas Zone and test it for gas and go on down and test all oil zones as we go through them, test shale breaks for possible bentonite and things like that that might enter a waterflood. In this manner, we will be able to plan our casing program.

Q Before we get to that, Mr. Buckles, is there any fresh water zones in this area?

A Yes, the Santa Rosa is a fresh water zone, which is above the Rustler.

Q Will that be fully protected?

A Yes, sir. We plan to set casing through all encountered water sands and from the drilling of this first well, we can then log the well with some type of log and then drill the other eight wells with rotary and log them and correlate with the log from the No. 1 well or the first well drilled; and then we will know where to set the casing and for the fresh water sands, and also the injection wells in the Queen sand itself.

Q Now turning to what has been marked as Exhibits No. 4

and 5, wou'd you identify those exhibits and discuss the information on them?

A This is just a schematic drawing, both are, with two possible injection well completions. The yellow casing shown at the top is the surface casing, which will protect all fresh water sands. It is estimated to be set at approximately 750 feet. However, if we encounter water below that fresh water, we will set it through any possible fresh water sands.

The Jalmat gas or the Yates gas, which is shown on both of these at 2590, which we took from our cable tool logs, we will definitely set a casing string through that so that it cannot possibly take any water. If we encounter nothing below the top of the Queen pay sand to indicate any possible hindrance in the waterflood, we would prefer to set casing on top of the Queen and injection in open hole, merely because in our experience the more area exposed to take water, the better performance we have with the flood.

If we encounter any possible thief zones in drilling our No. 1 Well, which might be a dry sand or gas sands that might be thief zones, or if we encounter shales that may swell the contact with water, then we will complete according to Exhibit No. 5, which is identical to No. 4 with the exception that the casing is run to the bottom of the hole and the casing is selectively perforated in the oil sands we will find.

You will note that we, in both cases, we have a string

of tubing. In Exhibit No. 4 the tubing is set at the bottom, open ended, and the tubing is packed off at the top of the well. The injection will be through the tubing, which will be protected for corrosion either by cement lining or some baked plastic. We have found through experience that by injecting water through the tubing, that the water in the annulus between the tubing and the casing rapidly becomes inert and dissipates whatever corrosion qualities it may have and thoroughly protects the casing and the tubing.

We have found that out by pulling the tubing out of the hole after several years of injectivity, and found that the outside of the tubing would be corroded up to the top of where the water was going in the formation and that the tubing from there to the top of the hole was in excellent condition with no corrosion whatsoever. In this manner we do not have to set a packer.

There's another advantage in this type of completion. If we have an open hole completion, the tendency is for the well to sometimes cave; also, the best water you can use would have some suspended solids that might tend to plug the formation, and let's assume we are injecting water at 1,000 pounds surface pressure and the tendency-- the records show that we may do some plugging by releasing the pressure in the tubing, the well tends to back flow and bring these particles that are plugging the pay into the well bore. Then we tie the injection line into this

valve shown at the upper left at the top of the well, inject water down through the annulus and reverse the flow through the tubing. In this manner we can clean the well out to bottom, cave-in's or any other matter that's in there, without having to move in a drilling rig to clean it out. That is done just when we feel it's necessary, and not very often. In the early stages of the well it's done more often than later.

No. 5 is the same identical situation except we see no reason to run the tubing above the top of the upper perforation. The tubing is merely to keep it from coming in contact with raw metals.

Q Have you used this type of completion in other waterflood projects?

A Yes, and very successfully.

Q Where was that?

A Winkler County, Texas, and Ward County, Texas, Pecos County, Texas.

Q Did you use salt water for injection purposes?

A Yes.

Q Do you have any analysis of the Rustler water you propose to use?

A I am not sure -- I didn't bring it, anyway, but I can testify it's a brine. It's thoroughly saturated with salt.

Q Does it have any hydrogen sulfide content?

A No, it does not. It's just a brine. It has sulfates

and some carbonates, but no sulfides.

Q Will this be a closed system?

A Yes, sir.

Q In your opinion, is there danger of corrosion that would cause contamination to other producing zones or fresh water zones in this type of completion?

A No. In the first place, we will use brand new casing, heavy pipe, and cement it with the quantity of cement designated by the Commission. In other words, we'll bring the cement up as high as the Commission wants it to prevent corrosion. We feel that since the corrosive water cannot come in contact with the casing itself, that the danger of causing a casing leak is very remote. We keep curves on each well showing the performance, injectivity against time and pressure, and if a leak ever develops, it will show up on this curve and we immediately then investigate to protect any zones that we don't want water to enter, and it would be a great mistake on our part to inject water in any zone that would not help us produce oil.

Q Mr. Buckles, have you ever testified before the Oil Conservation Commission and made your qualifications a matter of record?

A Yes.

MR. KELLAHIN: I overlooked qualifying the witness.

MR. NUTTER: Mr. Buckles is qualified.

Q (By Mr. Kellahin) Will the approval of this application

in your opinion result in the recovery of oil that would not otherwise be recovered?

A Yes, sir. You will note that in Exhibit 1, the Amerada Unit, or the Woolworth Unit operated by Amerada are on an 80-acre five-spot pattern. They have two 80-acre five-spots already in operation. Five of these wells were all producing wells, and the Well No. 3-8 shown in Section 28 was drilled. Their spacing is twice the size of our proposed spacing, and we feel that we'll be doing the State of New Mexico and the oil operator in general a great service by putting in this small flood which, incidentally, will be the same size as the two 80-acre five-spot pilot flood of Amerada's.

By having a good comparison of the flood performance under both conditions, we will also have the advantage of being able to complete our injection wells to direct the water only into the oil-bearing formation. That may not be the case by using an old producing well. We've noticed that in the Langlie-Mattix Field in general, there were some rather high gas-oil ratios shown even in the original completions. It's possible that some upper gas sands that were not productive of oil contribute some of this gas that was called high gas-oil ratio oil wells.

We've also witnessed some floods that had thief zones by utilizing the old producing wells, and these wells were drilled back in the 30's and heavily shot with nitroglycerin. Caliper surveys have shown rather enormous bore size holes and it's almost

impossible to find out whether or not you have thief zones until maybe two or three years after water injection has started. But at any rate, by having the two systems very close together in the same area, we will have something to compare with, one form against another, or one flood pattern against another.

Q Were Exhibits 1 through 5 prepared by you or under your supervision?

A Under my supervision, yes, sir.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits 1 through 5.

MR. NUTTER: Applicant's Exhibits 1 through 5 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1 through 5 admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination.

MR. NUTTER: Does anyone have any questions of Mr. Buckles? Mr. Irby.

CROSS EXAMINATION

BY MR. IRBY:

Q Mr. Buckles, with regard to the volume of water, can you tell me the total volume for the entire flood?

A No, sir. I can tell you better after we drill our well and find out. The only thing we have to go by now is the primary production which gives us some indication of the reservoir but we haven't any definite proof as to thickness of pay, the

permeability or porosity, and until I had that determination, it would be impossible to do other than just make a conjecture as to the total volume of water in this 160 acres.

Q Without this information you speak of, you wouldn't be able to determine the formation volume factor?

A No, sir.

Q With regard to your schematic drawings, Exhibits 4 and 5, the estimated depth of the surface casing setting is 750?

A Yes, sir.

Q I know this isn't exact for each of the wells. Can you tell me the name of the formation and the nature of the formation in which this casing will be set below the Santa Rosa?

A It will be set in Triassic red beds below the Santa Rosa, above the Rustler.

Q And the character of this formation?

A It's an impervious red shale. The reason we said 750 feet, because when we reached that depth in this well we drilled two and a half miles south of here, we encountered no fresh water below 750 feet, and this is an estimated depth. However, in drilling the well, we will go to better than 1,000 feet to determine that we're through all fresh water zones before we set casing; and assuming that we do not have any water bearing zones below 750 feet, then we will swing the casing up 750 feet and cement it to the surface. That's our plan, and we will absolutely protect all fresh water sands that we encounter in the drilling of the No.

Well, and do the same in all the other eight wells.

Q Before you make your final plans, you are going to have an analysis of the water in the water well you propose to drill -- is this correct?

A Yes, sir.

Q -- is this correct?

A Yes, sir.

Q Could you furnish my office a copy of that analysis, please?

A Yes, sir. We will have the Santa Rosa water analyzed and also the Rustler and furnish your office with a copy of the analysis.

Q Thank you, Mr. Buckles. Can any general statement be made as to the cost of this water at this time?

A Normally we can produce water in this volume at about a cent and a half a barrel and inject it into the formation. We see no reason why this would be any different. That's 42-gallon barrel.

MR. NUTTER: Mr. Reynolds.

MR. REYNOLDS: Mr. Buckles, I am Steve Reynolds, State Engineer.

BY MR. REYNOLDS:

Q I wonder if you are able to tell me approximately the concentration of the total dissolved solids in this water?

A 60,000 per minute.

Q What treatment, if any, is required before you inject

the water?

A We don't plan any treatment at the present time. We will have a closed system. All of our injection wells have a small filter at the well, which is a fiber filter with a permeability of 25 microns. The filter is for the purpose of protecting the meter and also to tell us the condition of the water. If we get a pressure drop across this filter, we will know that something is plugging it. Then we will immediately try to find out what the plugging agent is. It could be bacteria, slime forming bacteria or some other suspended solids that tend to plug. If it is bacteria, we have in our plant arrangements made to put in a bactericide, but at any rate, that's the way we keep track of our water and it determines what treatment is necessary.

Our entire system from the bottom of the source water well through our plant and to the bottom of the injection well is all protected from corrosion. All the pipe, the tanks, and every piece of equipment will be protected as well as it can be.

Q Using lined pipe, that sort of thing?

A Yes, baked-on plastic and things like that, and the tanks will be plastic coated inside.

Q Will you recycle the produced water?

A Yes.

Q All the produced water will be recycled?

A Yes, sir.

Q Are you able to tell us what the recovery rate is, that

is, how many barrels would be recovered per barrel of water injected?

A From experience in, say, Ward County, Texas, and Winkler County, Texas, on floods that we operate, by the time that we have injected ten barrels of water per barrel of oil produced, we have approached ecomonic limit.

Q Does that count your recycled water--

A All water.

Q -- or is that additional water? All water, about ten barrels per barrel of oil?

A Some floods we know of have already injected 20 times the produced oil and are still being operated. However, our floods are approaching economic limit, from experience, when we have injected about ten barrels of water to one barrel of oil produced? The floodable characteristics of this Langlie-Mattix Queen pay are not known. The things that cause high water ratio or thief zones are highly permeable streaks that you flood out first, and then have to carry water through that zone continuously while you're producing from the tighter zone. If this sand is as uniform as we think it is, we feel that ten times the water will be about all we will use.

Q Yes. Why did you elect to use brine here instead of fresh water? Usually in these floods, as I understand the matter, the fresh water is used. Now why did you elect to use brine here?

A We would prefer to use brine because, talking to the

operators in the Langlie-Mattix Field, they refer to bentonitic shale formations in the formation. They complain of trouble cleaning, which may tend to swell what shales are exposed in this well, and fresh water will swell bentonitic shales or any shales much more than any brine will. I might make a flat statement that almost any oil sand is more permeable to fresh water than it is to salt water. Another thing, we want to protect the fresh water, if possible.

Q Do you anticipate any troubles due to incompatibility of this injected water?

A No, sir.

Q Is the Rustler water in Southeastern New Mexico generally compatible with the formation?

A Yes, sir. The only water we have found anywhere in West Texas that was not compatible was produced water in the Sprayberry with Santa Rosa water. All the Rustler water is compatible with all the waters in Ward and Winkler County, Texas. I assume it's the same condition in Lea County, New Mexico.

Q Do I understand that you might run into compatibility problems if you use the fresh, your Santa Rosa water?

A I don't think so, because the incompatibility in the Sprayberry is due to barium sulfate saline deposits, and I don't believe there are any barium deposits in the Queen sand any place.

MR. REYNOLDS: That's all.I have. Thank you. Thank you very much, Mr. Buckles.

BY MR. NUTTER:

Q I might explain we are not trying to put you on the hot seat. It's just not often that we have an expert of your stature in this field for answering some of the questions, and there are some questions that we have been wondering about. I might ask one here. Do you have any general rule of thumb which you could go by as to the total amount of original water? I'm not talking about the recycled water,being the ten to one to the economic limit, but is there any general rule of thumb in these Permian Queen formations that you could go by as to the amount of original water that's necessary to resaturate your sand, take the place of the oil that's withdrawn on secondary,plus any gas withdrawals?

A We think the maximum original water that you would ever use would be 100 percent of pore space.

Q 100 percent of the pore space?

A Yes.

Q How would you relate that to the oil recovered? Is there any rule of thumb on that?

A You couldn't, and that statement that I made sounds unreasonable because we possibly have 30 percent of connate water in the formation, we also have oil, and possibly as high as 60 percent of the pore space is presently occupied with fluid; but you are going to lose some water. You can't retain all of your water. You are going to lose some of it some way, and I was using

that figure as a maximum. If you want to calculate the amount of water you take from a source well and then recycle, I say the maximum would be 100 percent of pore space, which is not a great deal of water in barrels. We could calculate it, but I don't know the thickness of the pay.

Q Well, there are quite a number of unknowns here as far as this reservoir is concerned that you are going to try to determine when you drill that first well?

A Yes, and we would be glad to furnish the Commission a complete report of our findings from the first well we drill.

Q We'd appreciate that.

A If we can take chip cores through the cable tool, we can come up with the present oil saturation, which we could not do for sure with a rotary core.

Q At the present time, are you able to make any estimate of the secondary recovery you'll obtain from this project?

A Mr. Nutter, we wouldn't be surprised if we produced a million and a half barrels on this 160-acre lease.

Q Which would be about twice the primary?

A Yes. Yes, that's right.

Q That would be on secondary, a million and a half on secondary?

A Yes. Unless we find some conditions there that are not indicated from present observation in the operation of the Field, we would not be surprised if we produced a million and a

half barrels or even two million barrels from this 160 acres.

Q You don't know what percent of the original oil in place has been produced on primary?

A No, but I would state that the maximum that has been produced is about one percent of pore space.

Q I see. Has the Amerada flood to the south had any responses yet?

A No.

Q When did they commence injection, do you know?

A No, sir. We have an Amerada man here that can answer that for you.

MR. THOMAS: May 1st.

MR. NUTTER: Of this year?

MR. THOMAS: Yes.

MR. NUTTER: Are there any other questions of Mr. Buckles?

MR. DURRETT: Yes, I have a question.

MR. NUTTER: Mr. Durrett.

BY MR. DURRETT:

Q Could you give me the footage locations of the present injection wells that you are going to drill?

A That is a question that I was planning to ask the Commission. Of course, the first well will be in the center of the lease, which would be 1320 feet from each line.

Q Yes.

A We want to drill these wells as close to the property line as possible, and I had planned to ask the Commission how close we can get. We definitely want the wells on our lease, and I thought the Commission may have already set up a precedent as to how close you can get to a lease line to drill a well.

MR. NUTTER: We frequently designate the location of corner injection wells like this as five feet out of the corner.

A We'll put it five feet.

Q (By Mr. Durrett) You would propose to put it five feet?

A If permissible, or as close as we can because the further away we get, we are losing acreage on our lease.

MR. DURRETT: I think that's all I have.

BY MR. NUTTER:

Q You stated that all of the offset operators had been advised of your intentions here. Have these offset operators concurred with your proposal, to your knowledge?

A They have not objected to it. Now all of the offset operators have been contacted, with the possible exception of the Amerada Unit to the south. We offered to drill these wells and asked the offset operators, which included Shell, Texaco, Sinclair, and Pan American, to share in the cost. We offered to drill the wells and asked them the share in the cost of drilling only, and that we would build a water plant, drill at the source of the water well and inject all the water into the wells at our sole cost. If they did not want to do that, we offered to farm

their property out and extend the floor across their acreage at any kind of a reasonable farmout arrangement. To date we don't know for sure what the offset operators intend to do.

Q You have no agreements with any of them as yet?

A No, sir.

MR. NUTTER: Any further questions? The witness may be excused.

(Witness excused.)

MR. NUTTER: Did you have anything further in this case, Mr. Kellahin?

MR. KELLAHIN: That's all, Mr. Nutter.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2867? We will take the case under advisement.

* * * *

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 19th day of August, 1963.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2867, heard by me on 7/24, 1963.

Examiner
New Mexico Oil Conservation Commission

CASE 2868: Appli. of CONTINENTAL OIL CO. for a 48.99-acre non-standard oil proration unit.

CASE NO. 2868

Application,
Transcripts,
Small Exhibits
ETC.

DRAFT

JMD/esr
July 2[illegible], 1963

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. 2868

Order No. R- 2539

APPLICATION OF CONTINENTAL OIL COMPANY
FOR A NON-STANDARD OIL PRORATION UNIT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 24, 1963, 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 _____ day of July, 1963, 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, Continental Oil Company, seeks approval of a 48.99-acre non-standard oil proration unit comprising Lots 2 and 3 of Section 31, Township 26 South, Range 32 East, NMPM, ~~North Mason Delaware Pool,~~ Lea County, New Mexico, to be dedicated to its Russell Federal 31 Well No. 1, located in Lot 3 of said Section 31.

(3) ~~That approval of the subject application will prevent waste and protect correlative rights.~~ That one well will efficiently and economically drain and develop the proposed non-standard unit.

(4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risks arising from the drilling of an excessive number of wells, ~~to prevent reduced recovery which might result from the drilling of too few wells~~, and otherwise prevent waste and protect correlative rights, the ~~subject application~~ proposed non-standard oil proration unit should be approved.

IT IS THEREFORE ORDERED:

(1) That a 48.99-acre non-standard oil proration unit comprising Lots 2 and 3 of Section 31, Township 26 South, Range 32 East, NMPM, ~~North Mason-Delaware Pool,~~ Lea County, New Mexico, is hereby approved and dedicated to the Russell Federal 31 Well No. 1, located in Lot 3 of said Section 31.

(2) That the above-described non-standard unit shall be operated and prorated in accordance with the Special Rules and Regulations for the North Mason-Delaware Pool.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

(4) That the Russell Federal 31 well No. 1 is within one mile of the North Mason-Delaware Pool and completed in the same formation and should therefore be operated and prorated in accordance with the Special Rules and Regulations for the ~~North~~ North Mason-Delaware Pool.

(5) That the allowable assigned to the above-described 48.99-acre non-~~standard oil~~ proration unit shall bear the same ratio to a standard allowable in the North Mason-Delaware Pool as the acreage in said unit bears to 40.

KELLAHIN AND FOX
ATTORNEYS AT LAW
54½ EAST SAN FRANCISCO STREET
POST OFFICE BOX 1713
SANTA FE, NEW MEXICO

TELEPHONES
983-9396
982-2991

July 16, 1963

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

Dear Mr. Porter:

In connection with the advertising of Case No. 2868 we note that Lots 2 and 3 Section 31, T26S, R32E, are listed as being in the North Mason-Delaware Pool, Lea County, New Mexico. The subject acreage is located in an undesignated pool. We assume that there is no consideration of a nomenclature hearing in connection with the hearing on the proposed nonstandard oil proration unit.

Yours very truly,

Jason W. Kellahin

JASON W. KELLAHIN

JWK:mcs
CC: A. B. Slaybaugh

R. G. Parker

George Wear

Case 2868

CONTINENTAL OIL COMPANY

P. O. BOX 1377
ROSWELL, NEW MEXICO

PRODUCTION DEPARTMENT
NEW MEXICO DIVISION
A. B. SLAYBAUGH
DIVISION SUPERINTENDENT
V. C. EISSLER
ASSISTANT DIVISION SUPERINTENDENT

825 PETROLEUM BUILDING
TELEPHONE: MAIN 2-4202

June 25, 1963

Set for hearing

New Mexico Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr., Secretary-Director

Gentlemen:

Re: APPLICATION FOR 48.99-ACRE NON-STANDARD PRORATION UNIT, LEA COUNTY, NEW MEXICO

We forward herewith application in triplicate for approval of a 48.99-acre proration unit for our Russell Federal 31 No. 1 Well located in Section 31, T26S, R32E. We should appreciate your setting this matter for hearing at the earliest convenient date.

Yours very truly,

A B Slaybaugh

VTL-pr
Enc.

cc: RGP GW JWK VGM

DOCKET MAILED
Date 7/12/63

IN THE MATTER OF THE APPLICATION OF CONTINENTAL OIL COMPANY FOR A NON-STANDARD OIL PRORATION UNIT [illegible] ACRE CONSISTING OF LOTS 2 AND 3 OF SECTION 31, T26S, R32E, NMPM, LEA COUNTY, NEW MEXICO

Case 2868

APPLICATION

Comes now applicant, Continental Oil Company, and respectfully requests approval of a 48.99-acre non standard oil proration unit consisting of Lots 2 and 3 Section 31, T26S, R32E, NMPM, Lea County, New Mexico, and in support thereof would show:

1. That applicant is owner of the Russell Federal 31 Lease consisting of N/2 NE/4 and Lots 2 and 3 of Section 31, T26S, R32E, Lea County, New Mexico.

2. That applicant has drilled and completed its Russell Federal 31 No. 1 located 1650 feet from the north line and 3630 feet from the east line of Section 31, T26S, R32E.

3. That said Section 31 is a partial section bounded by the state line to the south and the county and range line to the west and the said lots 2 and 3 are of non-standard size containing approximately 24.5 acres each.

4. That it would be uneconomical to drill a well on each lot.

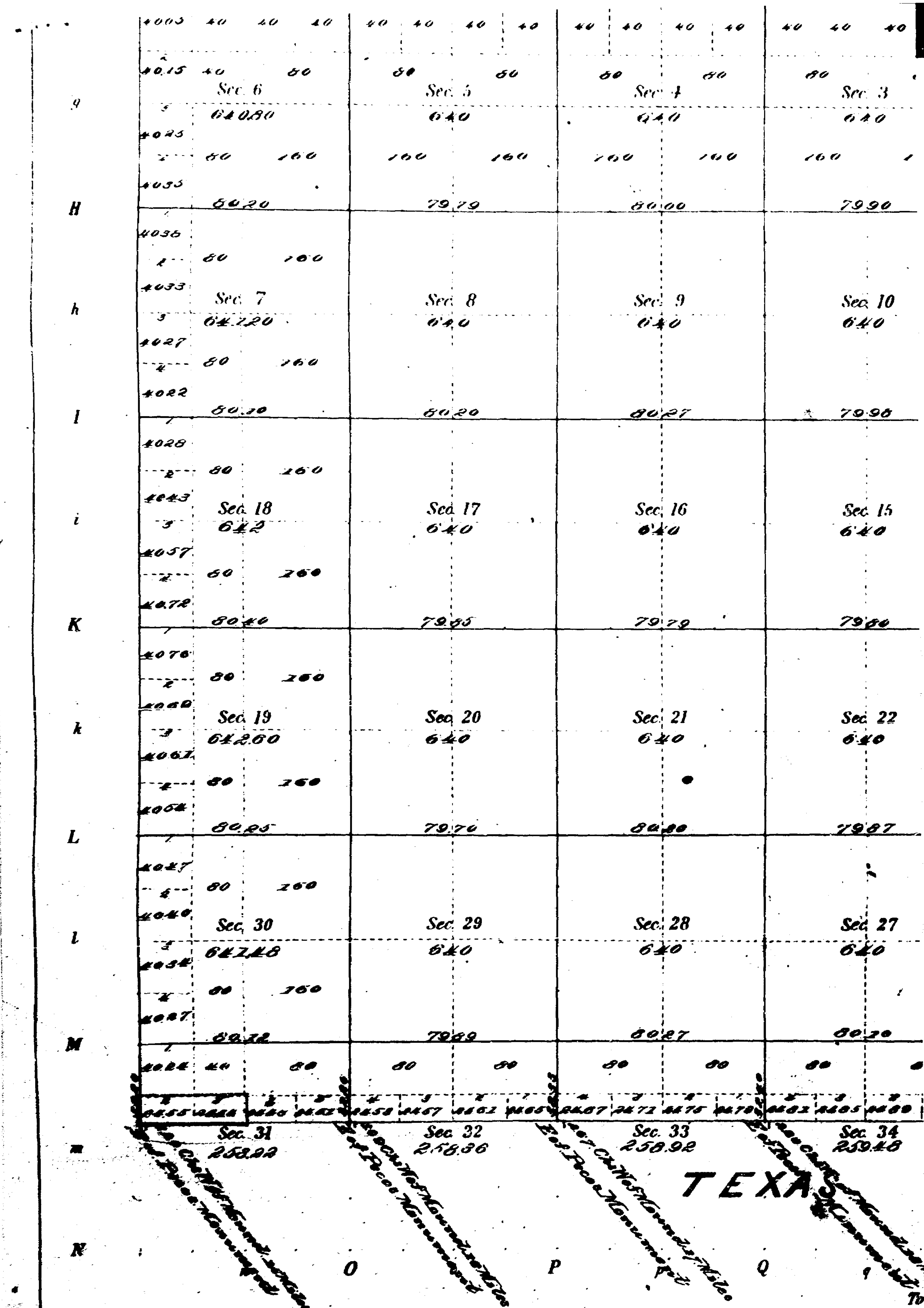
5. That by combining Lots 2 and 3 a proration unit of adequate size can be formed to promote a more uniform spacing density.

Wherefore applicant prays that this matter be set for hearing before the Commission's duly qualified examiner and upon hearing an order be entered approving the formation of a non-standard oil proration unit as described above.

Respectfully submitted,

A. B. Slaybaugh

A. B. SLAYBAUGH
Division Superintendent
of Production
New Mexico Division



Surveys Designated	By Whom Surveyed	Date of Contract	Amount of Surveys M.	Ch.	Lk.	When Survey
Township Lines E	Warner & Armstrong	July 20 1883	6	32	50	Oct. 20
Subdivisions	Warner & Armstrong	July 14 1883	57	02	77	Oct 4th 9
Retracement of N. Bdy. of Texas	" " "	" " "	6	00	00	Sept. 30

(Continued from July 10, 1963 examiner hearing)

CASE 2850: Application of Shell Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the East Pearl-Queen Unit Area comprising 2440 acres of State and Fee lands in Township 19 South, Range 35 East, Lea County, New Mexico.

CASE 2851: (Continued from July 10, 1963 examiner hearing and readvertised)

Application of Shell Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project on its East Pearl Queen Unit by the injection of water into the Queen formation through 31 wells in Sections 15, 21, 22, 26, 27, 28, 34, and 35, Township 19 South, Range 35 East, Lea County, New Mexico.

CASE 2869: Application of Marathon Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its State Warn A/c 3 Well No. 5, located in Unit H of Section 33, Township 17 South, Range 35 East, Lea County, New Mexico, to produce from the Vacuum-Abo Reef Pool and either an undesignated Blinebry or Glorieta pool through parallel strings of 2 1/16" OD tubing.

CASE 2870: Application of J. Gregory Merrion & Associates for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral irterests in the Basin-Dakota Gas Pool underlying the S/2 of Section 34, Township 25 North, Range 6 West, Rio Arriba County, New Mexico.

No. 21 63

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 24, 1963

9:00 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, as alternate examiner:

CASE 2864: Application of Midwest Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Custer Mountain Unit Area comprising 11,523.68 acres of State, Federal and Fee lands in Township 24 South, Range 35 East, Lea County, New Mexico.

CASE 2865: Application of Humble Oil & Refining Company for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in the Gallup formation underlying its Navajo "G" lease in Sections 1, 2, 11 and 12, Township 31 North, Range 17 West, San Juan County, New Mexico. Initial injection will be through applicant's Well No. 16 located in Unit G of said Section 1. Applicant further seeks the promulgation of special rules governing the operation of said project.

CASE 2866: Application of Humble Oil & Refining Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (combination) of its State "BV" Well No. 1, located in Unit A of Section 18, Township 18 South, Range 35 East, Lea County, New Mexico, to produce oil from the Bone Springs and Devonian formations through parallel strings of 2 7/8 inch casing and 4 1/2 inch casing cemented in a common well bore.

CASE 2867: Application of George L. Buckles Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen formation through nine wells on its Knight lease comprising the E/2 SE/4 of Section 21, W/2 SW/4 of Section 22, Township 24 South, Range 37 East, Lea County, New Mexico.

CASE 2868: Application of Continental Oil Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 48.99-acre non-standard oil proration unit comprising Lots 2 and 3, Section 31, Township 26 South, Range 32 East, North Mason-Delaware Pool, Lea County, New Mexico, to be dedicated to its Russell Federal 31 Well No. 1, located in Lot 3 of said Section 31.

CASE 2841: (Cont'd from June 26,1963) Application of Shell Oil Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to drill its Middleton Federal Well No. B-1 at an unorthodox location 660 feet from the North and West lines of Section 31, Township 19 South, Range 32 East, Lusk-Morrow Gas Pool, Lea County, New Mexico.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

P. O. BOX 871
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

August 7, 1963

Re: Case No. 2868 2852
Order No. R-2539 &
Applicant: R-2164-A
Continental Oil Company
~~Amerada Pet. Corp.~~

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Box 1713
Santa Fe, New Mexico

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC ___X___
Artesia OCC_____
Aztec OCC _____
OTHER_____

_____

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. 2868
Order No. R-2539

APPLICATION OF CONTINENTAL OIL COMPANY
FOR A NON-STANDARD OIL PRORATION UNIT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on July 24, 1963, 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 7th day of August, 1963, 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, Continental Oil Company, seeks approval of a 48.99-acre non-standard oil proration unit comprising Lots 2 and 3 of Section 31, Township 26 South, Range 32 East, NMPM, Lea County, New Mexico, to be dedicated to its Russell Federal 31 Well No. 1, located in Lot 3 of said Section 31.

(3) That one well will efficiently and economically drain and develop the proposed non-standard unit.

(4) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risks arising from the drilling of an excessive number of wells and otherwise prevent waste and protect correlative rights, the proposed non-standard oil proration unit should be approved.

(5) That the Russell Federal 31 Well No. 1 is within one mile of the North Mason-Delaware Pool and completed in the same formation and should therefore be operated and prorated in

accordance with the Special Rules and Regulations for the North Mason-Delaware Pool.

IT IS THEREFORE ORDERED:

(1) That a 48.99-acre non-standard oil proration unit comprising Lots 2 and 3 of Section 31, Township 26 South, Range 32 East, NMPM, Lea County, New Mexico, is hereby approved and dedicated to the Russell Federal 31 Well No. 1, located in Lot 3 of said Section 31.

(2) That the above-described non-standard unit shall be operated and prorated in accordance with the Special Rules and Regulations for the North Mason-Delaware Pool.

(3) That the allowable assigned to the above-described 48.99-acre non-standard oil proration unit shall bear the same ratio to a standard allowable in the North-Mason Delaware Pool as the acreage in said unit bears to 40.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M Campbell
JACK M. CAMPBELL, Chairman

E. S. Walker
E. S. WALKER, Member

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

esr/

R-31-E

R-32-E

Continental HBP 116760

Continental HBP 79726 "Thompson"

Continental HBP 79726

Continental HBP 79737 "Russell"

13

18

17

CO.

CO.

EDDY

LEA

US

Texaco

Continental HBP 79631 "Thompson"

Continental HBP 79737

24

19

20

T 26 S

Continental 2 HBP "Russell" 74897

US

Ibex et al

Continental HBP 79737 "Russell"

Continental HBP 109050 "Margo Wilder"

25

30

29

N

-1000

-1100

US

Gulf

C.B. Read

Continental HBP 116775

Midwest Oil Corp

36

3

32

State

C.B Read

NEW MEXICO

LOVING COUNTY TEXAS

Marathon "D"

T&P R.R. CO.

TWP 1

BLK. 55

TWP 1

BLK. 54

2

1

6

Marathon "B"

Gulf "BG"

Minnie Kyle et al

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 1
CASE NO. 2685

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DISTRICT

BATTLEAXE DELAWARE POOL
STRUCTURE MAP CONTOURED
ON TOP OF LAMAR LIMESTONE

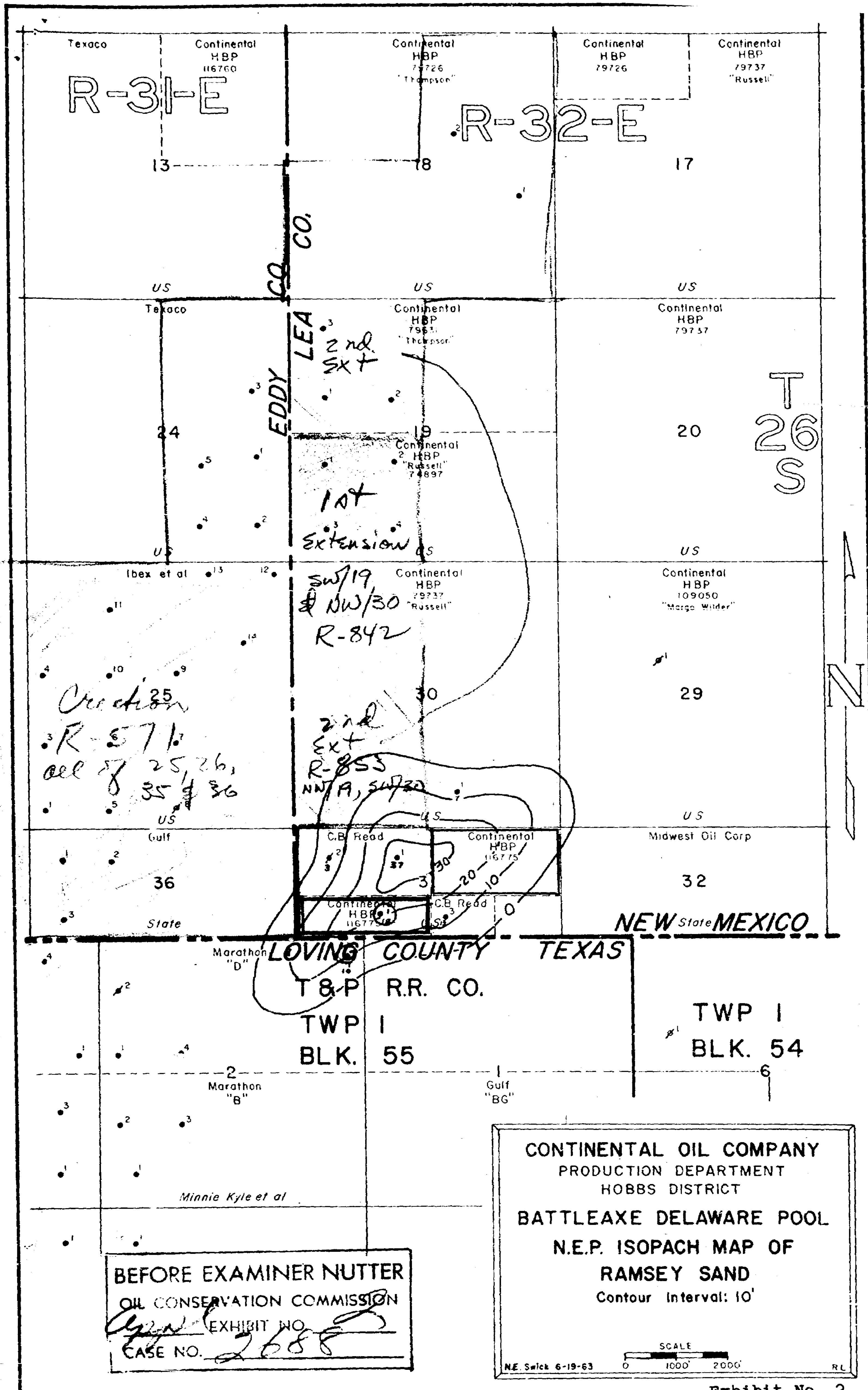
Contour Interval: 20'

Rev. N.E. Swick June 1965
Roswell Div. Office
Feb.-1963

SCALE
0 1000' 2000'

RL

Exhibit No. 1



Texaco
Continental HBP 116760
Continental HBP 79726 "Thompson"
Continental HBP 79726
Continental HBP 79737 "Russell"
R-31-E
R-32-E
13
18
17
EDDY CO
LEA CO.
US
Texaco
Continental HBP 79631 "Thompson"
Continental HBP 79737
2nd Ext
24
19
20
T 26 S
Continental HBP "Russell" 74897
1st Extension
SW/19 & NW/30 R-842
Ibex et al
Continental HBP 79737 "Russell"
Continental HBP 109050 "Margo Wilder"
25
30
29
Creation R-571 all of 25, 26, 35 & 36
2nd Ext R-853 NW/19, SW/30
N
Gulf
C.B. Read
Continental HBP 116775
Midwest Oil Corp
36
32
30
20
10
0
Continental HBP 116775
C.B. Read
State
NEW MEXICO
Marathon "D"
LOVING COUNTY TEXAS
T & P R.R. CO.
TWP 1
BLK. 55
TWP 1
BLK. 54
2
1
6
Marathon "B"
Gulf "BG"
Minnie Kyle et al
BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 2688
CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DISTRICT
BATTLEAXE DELAWARE POOL
N.E.P. ISOPACH MAP OF
RAMSEY SAND
Contour Interval: 10'
SCALE
0 1000' 2000'
N.E. Swick 6-19-63
RL

Exhibit No. 2

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 24, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 48.99-acre non-standard oil proration unit comprising Lots 2 and 3, Section 31, Township 26 South, Range 32 East, North Mason-Delaware Pool, Lea County, New Mexico, to be dedicated to its Russell Federal 31 Well No. 1, located in Lot 3 of said Section 31.

Case No. 2868

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 24, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil Company for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 48.99-acre non-standard oil proration unit comprising Lots 2 and 3, Section 31, Township 26 South, Range 32 East, North Mason-Delaware Pool, Lea County, New Mexico, to be dedicated to its Russell Federal 31 Well No. 1, located in Lot 3 of said Section 31.

CASE 2868

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 2868.

MR. DURRETT: Application of Continental Oil Company for a non-standard oil proration unit, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, representing the Applicant. We have one witness I would like to have sworn, please.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Nos. 1 and 2 marked for identification.)

MR. KELLAHIN: If the Commission please, in connection with the advertisement of this case, it was advertised as the

well being located in the North Mason-Delaware Pool. At the present time this well is actually in an undesignated Delaware Pool. I don't believe that the question of the pool delineation would properly come before the Examiner at this time. However, we do want to point out that this is not in the North Mason-Delaware Pool as presently defined.

MR. NUTTER: It's not within the defined limits?

MR. KELLAHIN: Right. We do have some testimony that it is not within the defined limits, but we don't feel this is the proper time to present it unless the Commission wants to hear it. With that in mind, we will confine our presentation to the non-standard unit question solely.

E. D. COLTHARP

called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A E. D. Coltharp.

Q By whom are you employed and in what position, Mr. Coltharp?

A Continental Oil Company as District Engineer for the Hobbs District.

Q Have you ever testified before the Oil Conservation Commission and made your qualifications a matter of record?

A Yes, sir, I have.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, sir, they are.

Q (By Mr. Nutter) Are you familiar with the application of Continental Oil Company in Case 2868?

A Yes, sir. Case 2868 is the application of Continental Oil Company for the creation of a non-standard oil proration unit to consist of Lots 2 and 3, being 48.99 acres, located in Section 31, Township 26 South, Range 32 East, Lea County, New Mexico. This unit has been developed by one well located at 1650 from the north line and 3630 feet from the east line of the section boundaries.

Q Is this situation created by the governmental survey involved in this area?

A Yes, it is.

Q Just exactly where is this located in relation to the State line?

A It's located on the southern border of the State of New Mexico and on the norther border of the State of Texas.

Q Now referring to what has been marked as Exhibit No. 1, would you identify that exhibit and discuss the information shown on it?

A Exhibit No. 1 is a structure map contoured on top of the Lamar limestone underlying the Russell Federal 31 lease and

the surrounding area in New Mexico and Texas. The Russell Federal 31 lease is outlined in red. As shown, it consists of the North Half of the Northeast Quarter in Lots 2 and 3 of Section 31, Township 26 South, Range 32 East, and it contains a total of 128.99 acres. The location of the Well No. 1 is circled in red and described as being 1650 from the north line and 3630 feet from the east line of the section boundaries, Section 31, Township 26 South, Range 32 East. Lots 2 and 3 are indicated by the green circle around those lots.

Q Is that the unit that you propose to form in this application?

A Yes, sir, it is.

Q Consisting of Lots 2 and 3?

A Yes, sir.

Q Referring to what has been marked as Exhibit No. 2, would you discuss that exhibit?

A Exhibit No. 2 is an isopacous map of the undesignated Delaware Pool underlying the Russell Federal 31 lease and the surrounding area in New Mexico and Texas. Our interpretation of the productive limits of the pool indicates all acreage within this unit boundary may be reasonably considered productive.

Q Now in that connection have you taken into consideration what appears to be a dry hole on the C. B. Reid lease to the north?

A Yes, sir. In our interpretation of the logs and core analysis of that well, we would have given that well three foot of

productive capacity. However, they did not feel that was a commercial well and therefore did not set pipe on the well to attempt completion.

Q But in your opinion it was not necessarily a dry hole, is that correct?

A No, sir.

Q Do you have any production to the south that would indicate that the acreage you propose to dedicate is productive?

A Yes, sir. There's a well drilled near the Lovington County line -- it says the "G" part of the Lovington County. If you'll notice, there's a well in that north -- it's in the Northeast of the Northeast corner of Section 2 down there in Township 1, Block 55 of T & P Railroad Survey, Lovington County.

Q You mean Loving County?

A Loving County, Texas.

Q You are talking about the "G" in Loving, and not Unit G in the Section?

A No, I'm talking about the "G" in the name Loving. The well was drilled and completed since this map was originally made.

Q Is that a producing well?

A Yes, it's producing at the present time.

Q Is it producing from the Delaware formation, the same formation as involved in your well?

A Yes, sir, it's producing from the Ramsey sand.

Q Now, has there been any other unit similar to this

formed in this immediate vicinity?

A Yes, sir. The C. B. Reid Well No. 3 in Lots 4 and 5 was granted a non-standard proration unit in Case No. 2733, R-2416 set by the Commission.

Q That is approximately the same acreage as you are asking for here, is that correct?

A Yes, sir, it is.

Q In your opinion, will the granting of this application tend to prevent waste?

A Yes, sir, it would.

Q In what way?

A As shown, these lots contain 25 acres, or slightly less than 25 acres. It's not practical to drill, we feel it's not practical to drill any more than one well per 40 acres on this location, and the single well will drain this 40 acres and we have tried in the initial planning to put the well as near as we possibly could,under the present rules and regulations of the Commission, as near as we could to the center of the proration unit.

Q Is Continental asking that its allowable be adjusted in proportion to the acreage dedicated to the well?

A Yes, sir.

Q Were Exhibits 1 and 2 prepared by you or under your supervision?

A Yes, they were.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits 1 and 2.

MR. NUTTER: Continental's Exhibits 1 and 2 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1 and 2 admitted in evidence.)

MR. KELLAHIN: That's all the questions I have on direct examination.

MR. NUTTER: Does anyone have any questions of Mr. Coltharp?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Coltharp, this well has been completed, is that correct?

A Yes, sir, it has.

Q What's it capable of producing at the present time?

A It's capable of producing in excess of 50 barrels a day. We have tested the well, we are testing it now at 36 barrels, 35, 37 barrels. Initial completion was approximately 60 barrels of oil per day.

Q Is it a flowing well or pumping well?

A Flowing well.

Q What's the capacity of Reid's No. 1 north of it?

A It's carried as a top allowable at the current time.

Q Is it making its top allowable, do you know?

A Yes, sir, according to the last reports we had, it was making its top allowable, flowing.

Q How about Reid's 3 to the east?

A That well is a pumping well and not making its top allowable.

Q Making top allowable on pump?

A No, it's not making top allowable. It's making some water with it.

Q Do you know how much it can make?

A I can only go by the Commission records, which the last I recall was 15 barrels of oil per day.

Q Is that well south of your proposed unit the Marathon well?

A It was a farmout from Marathon.

Q How much is that well capable of making?

A It's a flowing well and we do not have -- it's just recently completed and we do not have its capabilities right now.

Q Do you know what the allowable assigned to that well is?

A That I do not know. No, sir, it's a Texas well.

Q Now this No. 8 Well in Section 25, is that an abandoned location or is that an abandoned producer?

A It's abandoned -- well, it's a dry hole. It was drilled.

Q It was drilled?

A Drilled, yes, sir, and it's a dry hole.

Q How about the Marathon "D" No. 2 down there in Section 2?

A Yes, sir.

Q Is that an abandoned producer or drilled dry hole?

A Drilled dry hole.

Q Do you know what the actual defined limits of the North Mason-Delaware Pool are in this area?

A No, sir. I do not know exactly the over-all limits.

MR. NUTTER: Are there any other questions of the witness? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: Nothing, that's all, Mr. Nutter.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2868? We will take the case under advisement.

* * *

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 20th day of August, 1963.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2828, heard by me on 7/24, 1963.

....., Examiner
New Mexico Oil Conservation Commission