

CASE 3614: Appli. of SHIPROCK
CORP. for an amendment to ORDER
NO. R-1438, San Juan County.

[Handwritten signature]

Case Number

3614

Application
Transcripts.

Small Exhibits

ETC.

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

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

September 13, 1967

Mr. Jack Cooley
Burr & Cooley
Attorneys at Law
152 Petroleum Center Building
Farmington, New Mexico

Re: Case No. 3614
Order No. R-3284-A
Applicant:
SHIPROCK CORPORATION

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

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC x

Other Mr. Richard S. Morris

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. 3614
Order No. R-3284-A

APPLICATION OF SHIPROCK CORPORATION
FOR AN AMENDMENT TO ORDER NO. R-1438,
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing de novo at 9 a.m. on September 13, 1967, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 13th day of September, 1967, the Commission, a quorum being present, having considered the record, 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 after an examiner hearing, Commission Order No. R-3284, dated July 27, 1967, was entered in Case 3614 amending Rule 1 of the Special Rules and Regulations governing the Shiprock-Gallup Oil Pool, San Juan County, New Mexico.

(3) That Universal Oil Corporation, a party to said examiner hearing, filed a timely application that said Case 3614 be heard de novo.

(4) That the request of Universal Oil Corporation to dismiss the hearing de novo should be granted.

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CASE No. 3614
Order No. R-3284-A

IT IS THEREFORE ORDERED:

(1) That the application of Universal Oil Corporation to have Case 3614 heard de novo is hereby dismissed.

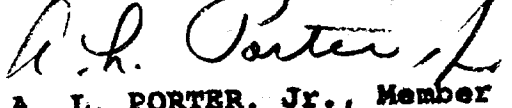
(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

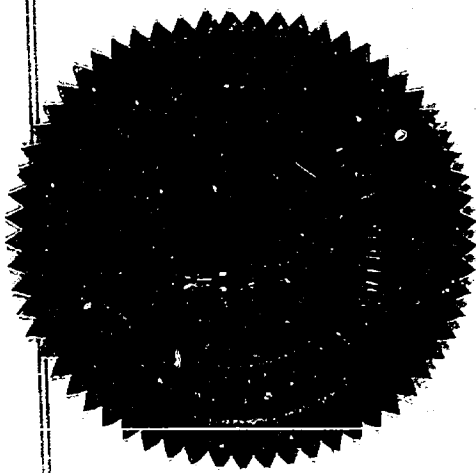
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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



esr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

MAIN OFFICE

267 AUG 14 AM 8 07

IN THE MATTER OF THE APPLICATION
OF SHIPROCK CORPORATION FOR AMEND-
MENT TO ORDER NO. R-1438, SAN JUAN
COUNTY:

CASE No. 3614
Order No. R-3284

APPLICATION FOR REHEARING

BY THE COMMISSION:

Comes now Universal Oil Corporation and makes application to the Commission for a rehearing in the above styled and numbered case and order and in support thereof would respectfully show the Commission the following:

(1) That Universal Oil Corporation is adversely affected by Order No. R-3284.

(2) That finding No. 6 of Order No. R-3284 is not supported by substantial evidence on the record.

(3) That finding No. 7 of Order No. R-3284 is not supported by substantial evidence on the record.

(4) That Universal Oil Corporation made application to the Oil Conservation Commission in Case No. 1697 for a Spacing Order in the Shiprock-Gallup Oil Pool and that the Commission entered Order No. R-1438 in said case on July 15, 1959 which Order established a well spacing pattern in the Shiprock-Gallup Oil Pool. Said spacing pattern has continued in force from said date until the entry of Order No. R-3284 on July 27, 1967.

(5) That the effect of Order No. R-2384 is to completely abolish well spacing in the Shiprock-Gallup Oil Pool and thus permit an unlimited number of wells to be drilled therein on any given governmental quarter section.

(6) That it is unlawful for the Commission to abdicate its duty to establish a well spacing pattern in the Shiprock-Gallup Oil Pool.

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CASE No. 3614
Order No. R-3284

(7) That Order No. R-3284 will cause waste, violate correlative rights, and result in the drilling of unnecessary wells in the Shiprock-Gallup Oil Pool.

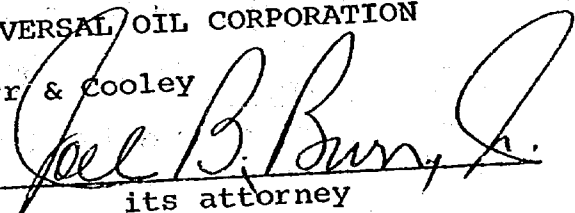
(8) That Order No. R-3284 is unlawful for the reason that it goes beyond the relief requested in the application filed with the Commission by Shiprock Corporation in Case No. 3614 and that the application requested a "change" in the spacing whereas the Order entirely abolished well spacing in the Shiprock-Gallup Oil Pool.

WHEREFORE applicant prays Commission to reverse and rescind Order No. R-3284 and deny the relief sought by Shiprock Corporation in Case No. 3614.

UNIVERSAL OIL CORPORATION

Burr & Cooley

by


its attorney

152 Petroleum Center Building
Farmington, New Mexico 87401

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

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

P. O. BOX 2088
SANTA FE

July 27, 1967

Mr. Richard Morris
Seth, Montgomery, Federici & Andrews
Attorneys at Law
Post Office Box 2307
Santa Fe, New Mexico

Re: Case No. 3614
Order No. R-3284
Applicant:
SHIPROCK CORPORATION

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

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC x

Other Mr. Jack Cooley

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

FALL
SENT

SYMBOLS

DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination.

LA109 SSD351

1967 SEP 12 PM 4 38

L FRA045 PD=FARMINGTON NMEX 12 423P MDT=

NEW MEXICO OIL CONVERSATION COMM=

SANTA FE NMEX=

YOU ARE HEREBY REQUESTED TO DISMISS THE APPLICATION OF
UNIVERSAL OIL CORPORATION FOR DE NEVO HEARING CASE NO

3614 ORDER NO R3284=

UNIVERSAL OIL CORP BY JACK COOLEY ITS ATTORNEY=

1967 SEP 12 PM 4 47

=DE NEVO 3614 R3284=

WU1201 (R2-65)

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

DOCKET: REGULAR HEARING - WEDNESDAY - SEPTEMBER 13, 1967
OIL CONSERVATION COMMISSION - 9 A.M. - MORGAN HALL, STATE LAND OFFICE
BUILDING, SANTA FE, NEW MEXICO

- ALLOWABLE: (1) Consideration of the oil allowable for October, 1967;
- (2) Consideration of the allowable production of gas for October, 1967, from thirteen prorated pools in Lea, Eddy, and Roosevelt Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for October, 1967.

CASE 3655:

In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider temporary extension of Emergency Order No. E-25, issued by the Commission August 21, 1967, to be effective for 15 days from 7 o'clock a.m., September 1, 1967. Said emergency order, applicable to Lea, Chaves, Eddy and Roosevelt Counties because of the recent unprecedented increases in Southeast New Mexico normal unit allowables, suspended the provision of Rule 301(d) of the Commission Rules and Regulations which requires that no well shall be assigned an allowable greater than the amount of oil produced on official tests during a 24-hour period.

CASE 3614 (DE NOVO):

Application of Shiprock Corporation for an amendment to Order No. R-1438, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-1438, which order established special rules for the Shiprock-Gallup Oil Pool. Applicant seeks the deletion of that provision of said rules which provides that wells shall not be located closer than 300 feet to the nearest well producing from the same pool. Applicant would further amend said rules to permit the drilling of wells closer than 165 feet to the outer boundary of the quarter-quarter section, but in no event closer than 165 feet to the boundary of acreage owned by an offset operator.

Upon application of Universal Oil Corporation, this case will be heard DE NOVO under the provisions of Rule 1220 of the Commission Rules and Regulations.

Docket No. 28-67
September 13, 1967 Regular Hearing

CASE 3656:

Southeastern New Mexico nomenclature case calling for an order for the creation of one pool and the assignment of an oil discovery allowable therein, and the creation of one other oil pool and two gas pools, and for the extension and contraction of certain other pools in Lea, Chaves, Eddy, and Roosevelt Counties.

- (a) Create a new pool in Lea County, New Mexico, classified as an oil pool for Pennsylvanian production and designated as the North Morton-Pennsylvanian Pool, comprising the following described acreage:

TOWNSHIP 14 SOUTH, RANGE 35 EAST, NMPM
Section 32: NW/4

Further, for the assignment of approximately 52,140 barrels of oil discovery allowable to the discovery well, Olen F. Featherstone's Mobil State Well No. 1 located in Unit E of said Section 32.

- (b) Create a new pool in Lea County, New Mexico, classified as an oil pool for Bone Springs production and designated as the Wilson Bone Springs Pool comprising the following-described acreage:

TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM
Section 19: SW/4

- (c) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Paduca-Morrow Gas Pool. The discovery well is the Texaco Inc. Cotton Draw Unit Well No. 65, located in Unit G of Section 2, Township 25 South, Range 31 East, NMPM. Said pool described as:

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM
Section 2: N/2

- (d) Create a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Paduca-Wolfcamp Gas Pool. The discovery well is the Texaco Inc. Cotton Draw Unit Well No. 65, located in Unit G of Section 2, Township 25 South, Range 31 East, NMPM. Said pool described as:

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM
Section 2: NE/4

Docket No. 28-67
September 13, 1967 Regular Hearing

(e) Extend the Acme-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 27 EAST, NMPM
Section 4: E/2 NW/4

(f) Extend the North Bagley-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
Section 28: NE/4

(g) Extend the Lusk Strawn Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 31 EAST, NMPM
Section 11: NW/4 & SE/4

(h) Extend the East Mason-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 32 EAST, NMPM
Section 17: S/2

(i) Extend the Penasco Draw San Andres-Yeso Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 25 EAST, NMPM
Section 24: S/2 SE/4

(j) Extend the Springs-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 26 EAST, NMPM
Section 34: S/2

(k) Contract the Square Lake Pool in Eddy County, New Mexico, by the deletion of the following-described acreage:

TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM
Section 12: NE/4

(l) Extend the Grayburg-Jackson Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM
Section 12: NE/4

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Docket No. 28-67
September 13, 1967 Regular Hearing

(m) Extend the Tatum-Wolfcamp Pool in Lea County, New Mexico,
to include therein:

TOWNSHIP 13 SOUTH, RANGE 36 EAST, NMPM
Section 5: NW/4

(n) Extend the Todd-Lower San Andres Pool in Roosevelt County,
New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 36 EAST, NMPM
SECTION 31: NE/4

(o) Extend the Tom-tom San Andres Pool in Chaves County,
New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 31 EAST, NMPM
Section 34: N/2 SE/4

(p) Extend the Vacuum-Upper Pennsylvanian Pool in Lea County,
New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 13: SW/4

(q) Extend the North Vacuum-Lower Wolfcamp Pool in Lea County,
New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 2: W/2
Section 3: NW/4

(r) Extend the Vada-Pennsylvanian Pool in Lea County, New
Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 34 EAST, NMPM
Section 17: NE/4

Docket No. 29-67

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 13, 1967

10:30 A. M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following case will be heard before Daniel S. Nutter, Examiner, or
Elvis A. Utz, Alternate Examiner:

CASE 3657:

Application of New Mexico Salt Water Disposal Company,
Inc. for salt water disposal, Lea County, New Mexico.
Applicant, in the above-styled cause, seeks authority
to dispose of produced salt water into the Devonian
formation through the Mobil State "GG" Well No. 1
located 1980 feet from the South and East lines of
Section 10, Township 11 South, Range 34 East, Sand
Springs-Devonian Pool, Lea County, New Mexico.

Memo

From

George M. Hatch
General Counsel

To

Call Burr and tell
him that he should file
for a de novo rather than
a rehearing -

Order 3284 entered ~~July~~ July 27
rehearing deadline ~~July~~ Aug 20, 1967
de novo deadline Aug 28, 1967

Reg. Hearing Sept. 13

Memo

From

George M. Hatch
General Counsel

To

65-3-11.1 de novo
Rule 1220 - date for
de novo

65-3-22 Rehearings

advise that a letter
stating to treat application
as one for a de novo will
do the job -

August 17, 1967

Oil Conservation Commission
Land Office Building
State Capitol
Santa Fe, New Mexico 87501

Re: In the matter of the Application of Shiprock Corporation
for amendment to Order No. R-1438, San Juan County -
Case No. 3614, Order No. R-3284

Gentlemen:

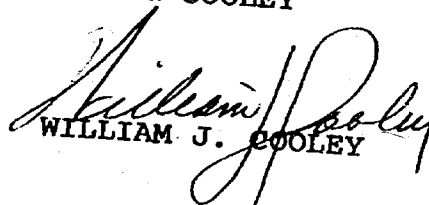
Reference is made to the application for rehearing which we
forwarded to you under cover of our letter of August 11, 1967,
on behalf of Universal Oil Corporation.

Said Case No. 3614 was heard by an examiner rather than the
full Commission, you are hereby requested to consider the
above-referenced application for rehearing as an application
for a hearing De Novo.

You are requested to set this case down for hearing not
earlier than the October regular hearing, since our client
will require at least that much time in order to prepare for
the hearing.

Very truly yours,

BURR & COOLEY


WILLIAM J. COOLEY

cc: Mr. Richard S. Morris
Post Office Box 2307
Santa Fe, New Mexico

BURR & COOLEY

ATTORNEYS AND COUNSELORS AT LAW
SUITE 152 PETROLEUM CENTER BUILDING
FARMINGTON, NEW MEXICO
87401

JOEL B. BURR, JR.
WM. J. COOLEY

TELEPHONE 325-1702
AREA CODE 505

August 11, 1967

MAIN OFFICE 807

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Oil Conservation Commission
Land Office Building
State Capitol
Santa Fe, New Mexico 87501

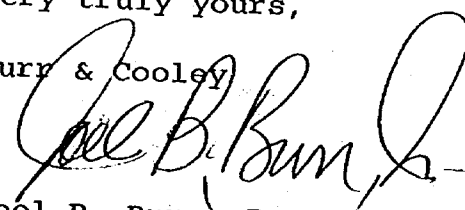
Re: In the matter of the Application of Shiprock Corporation
for amendment to Order No. R-1438, San Juan County--Case
No. 3614, Order No. R-3284

Gentlemen:

Enclosed for filing with the Commission is original and two
copies of Application For Rehearing of Universal Oil Corporation,
in the above styled and numbered case, a copy of which is
being mailed this date to Mr. Richard S. Morris, Santa Fe,
New Mexico, attorney for Shiprock Corporation.

Very truly yours,

Burr & Cooley



Joel B. Burr, Jr.

JBB:cl

Enclosure

cc: Mr. Richard S. Morris
P. O. Box 2307
Santa Fe, New Mexico 87501

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. 3614
Order No. R-3284

APPLICATION OF SHIPROCK CORPORATION
FOR AN AMENDMENT TO ORDER NO. R-1438,
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 12, 1967,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 27th day of July, 1967, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, 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 by Order No. R-1438, dated July 15, 1959, Special
Rules and Regulations were promulgated for the Shiprock-Gallup
Oil Pool, San Juan County, New Mexico.

(3) That Rule 1 of said Special Rules and Regulations
provides that each well drilled in the Shiprock-Gallup Oil Pool
shall be located no nearer than 165 feet to the outer boundary
of the quarter-quarter section on which it is located and shall
be located no nearer than 300 feet to the nearest well producing
from the same common source of supply; provided, however, that
said 300-foot restriction shall not be applicable to wells
projected to or completed in the Gallup formation which offset
wells which were drilling to or completed in the Shiprock-Gallup
Oil Pool on the effective date of the aforementioned Special
Rules and Regulations.

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CASE No. 3614

Order No. R-3284

(4) That the applicant, Shiprock Corporation, seeks amendment of the aforesaid Rule 1 to permit the drilling of wells in the subject pool nearer than 300 feet to another well producing from the same common source of supply and to permit the drilling of wells nearer than 165 feet to the outer boundary of the quarter-quarter section, but in no event nearer than 165 feet to the boundary of acreage owned by an offset operator.

(5) That the drive mechanism in the subject pool is gravity drainage.

(6) That the evidence presented indicates that the drilling of a well or wells in the aforesaid pool nearer than 300 feet to another well drilling to or capable of producing from the pool and/or nearer than 165 feet to the boundary line of the quarter-quarter section on which the well or wells are located will allow the operators in said pool to select locations to better take advantage of the gravity drainage.

(7) That approval of the subject application may result in the recovery of otherwise unrecoverable oil, will afford the operators in the subject pool the opportunity to produce their just and equitable share of the oil in the pool, and otherwise prevent waste and protect correlative rights, provided no well is completed or recompleted nearer than 165 feet to the boundary of acreage owned by an offset operator.

IT IS THEREFORE ORDERED:

(1) That Rule 1 of the Special Rules and Regulations governing the Shiprock-Gallup Oil Pool, promulgated by Order No. R-1438, dated July 15, 1959, is hereby amended to read in its entirety as follows:

"RULE 1. Each well completed or recompleted in the Shiprock-Gallup Oil Pool or in the Gallup formation within one mile thereof, and not nearer to or within the limits of another designated Gallup oil pool, shall be located no nearer than 25 feet to the outer boundary of the quarter-quarter section on which it is located; provided, however, that in no event shall said well or wells be completed or

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CASE No. 3614

Order No. R-3284

recompleted nearer than 165 feet to the boundary of acreage owned by an offset operator.

That nothing contained herein shall be construed as prohibiting the location of a well because of its nearness to a previously drilled well."

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

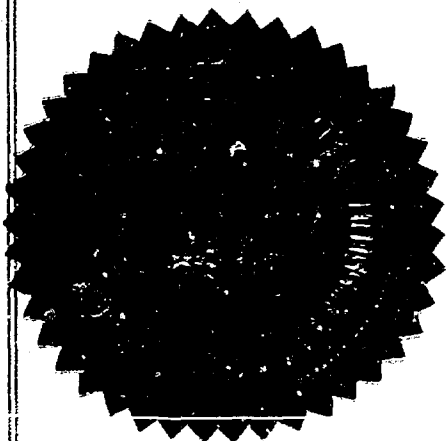
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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



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. 2430
Order No. R-2125

APPLICATION OF ROYAL DEVELOPMENT
COMPANY FOR SEVEN UNORTHODOX OIL
WELL LOCATIONS, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 8, 1961, at Santa Fe, New Mexico, before Elvis A. Utz, 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 17th day of November, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, Royal Development Company, seeks approval of seven unorthodox oil well locations in the Shiprock-Gallup Oil Pool, San Juan County, New Mexico, for the following-described wells in Section 17, Township 29 North, Range 10 East:

Well No. 17-I-A, to be located 2475 feet from the South line and 10 feet from the East line;

Well No. 17-I-A-1, to be located 2475 feet from the South line and 660 feet from the East line;

Well No. 17-I-B, to be located 2475 feet from the South line and 1310 feet from the East line;

Well No. 17-I-D, to be located 1650 feet from the South line and 10 feet from the East line;

Well No. 17-I-E, to be located 1650 feet from the South line and 1310 feet from the East line;

-2-
CASE No. 2430
Order No. R-2125

Well No. 17-J-C, to be located 2475 feet from the South line and 2630 feet from the East line; and

Well No. 17-J-C-1, to be located 2475 feet from the South line and 1980 feet from the East line.

(3) That the proposed unorthodox well locations are necessitated by the applicant's desire to accomplish a better drainage pattern.

(4) That the proposed unorthodox well locations will not crowd acreage belonging to any other operator.

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Royal Development Company, is hereby authorized seven unorthodox oil well locations in the Shiprock-Gallup Oil Pool, San Juan County, New Mexico, for the following-described wells in Section 17, Township 29 North, Range 18 West:

Well No. 17-I-A, to be located 2475 feet from the South line and 10 feet from the East line;

Well No. 17-I-A-1, to be located 2475 feet from the South line and 660 feet from the East line;

Well No. 17-I-B, to be located 2475 feet from the South line and 1310 feet from the East line;

Well No. 17-I-D, to be located 1650 feet from the South line and 10 feet from the East line;

Well No. 17-I-E, to be located 1650 feet from the South line and 1310 feet from the East line;

Well No. 17-J-C, to be located 2475 feet from the South line and 2630 feet from the East line; and

Well No. 17-J-C-1, to be located 2475 feet from the South line and 1980 feet from the East line.

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

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CASE No. 2430
Order No. R-2125

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

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

S E A L

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. 1697
Order No. R-1438

APPLICATION OF UNIVERSAL OIL
CORPORATION FOR THE CREATION
OF A NEW OIL POOL FOR GALLUP
PRODUCTION IN SECTIONS 16 AND
17, TOWNSHIP 29 NORTH, RANGE
18 WEST, SAN JUAN COUNTY, NEW
MEXICO, AND FOR CERTAIN EXCEP-
TIONS TO RULES 104 AND 107 FOR
WELLS IN SAID POOL

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8:00 o'clock a.m. on June 24, 1959, at Santa Fe, New Mexico, before Elvis A. Utz, 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 15th. day of July, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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 on the basis of a discovery well drilled 1980 feet from the North line and 2310 feet from the East line of Section 17, Township 29 North, Range 18 West, NMPM, San Juan County, New Mexico, to a depth of less than 100 feet, the applicant, Universal Oil Corporation, seeks an order creating a new pool for Gallup production to be known as the Shiprock-Gallup Oil Pool and to comprise the N/2 and the N/2 S/2 of Section 16 and the N/2 and N/2 S/2 of Section 17, Township 29 North, Range 18 West, NMPM, San Juan County, New Mexico.

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Case No. 1697
Order No. R-1438

(3) That only the SE/4 NW/4 and the SW/4 NE/4 of said Section 17 have been proven productive of oil from the Gallup formation and the Shiprock-Gallup Oil Pool should encompass this acreage only.

(4) That the applicant seeks an exception to Rule 104 of the Commission Rules and Regulations to provide that wells drilled in said Shiprock-Gallup Oil Pool may be located 165 feet from the outer boundary line of the quarter-quarter section on which they are located and to provide that they may be located 300 feet from the nearest well producing from the same common source of supply.

(5) That the applicant further seeks an exception to Rule 107 of the Commission Rules and Regulations to authorize slim-hole completions in said Shiprock-Gallup Oil Pool.

(6) That the subject application should be approved.

IT IS THEREFORE ORDERED:

(1) That a new pool in San Juan County, New Mexico, classified as an oil pool for Gallup production be and the same is hereby created and designated as the Shiprock-Gallup Oil Pool, consisting of the following-described acreage:

TOWNSHIP 29 NORTH, RANGE 18 WEST, NMPM
Section 17: SE/4 NW/4 and SW/4 NE/4

(2) That for allowable purposes, the 40-acre proportional factor for pools from 0 to 5000 feet shall apply to said Shiprock-Gallup Oil Pool.

(3) That special rules and regulations for said Shiprock-Gallup Oil Pool be and the same are hereby promulgated as hereinafter set forth.

SPECIAL RULES AND REGULATIONS FOR THE
SHIPROCK-GALLUP OIL POOL

RULE 1. Each well drilled in the Shiprock-Gallup Oil Pool shall be located no nearer than 165 feet to the outer boundary of the quarter-quarter section on which it is located and shall be located no nearer than 300 feet to the nearest well producing from the same common source of supply; provided, however, that said 300-foot restriction shall not be applicable to wells projected to or completed in the Gallup formation which offset wells which were drilling to or completed in the Shiprock-Gallup Oil Pool on the effective date of these rules.

-3-

Case No. 1697

Order No. R-1438

RULE 2. The Secretary-Director shall have authority to grant exceptions to Rule 1 without notice and hearing where an application therefor has been filed in due form and the necessity for the exception is based on topographical conditions.

Applicants shall furnish all operators owning acreage within 330 feet of the proposed location a copy of the application to the Commission and shall stipulate to the Commission that proper notice has been furnished to all such operators. The Secretary-Director may approve the application if, after a period of twenty (20) days, no such operator has objected. The Secretary-Director may grant immediate approval upon receipt of waivers of objection from all such operators.

RULE 3. The slim-hole method of completion may be utilized in the Shiprock-Gallup Oil Pool, provided, however, that the tubing used as a substitute for casing shall be no smaller than 2-3/8 inch OD and no larger than 2-7/8 inch OD and shall be set at least to the top of the productive interval in the well; provided, further, that cement shall be circulated to the surface.

RULE 4. No 40-acre proration unit shall produce in excess of the 40-acre top unit allowable for wells in the 0-5000 foot depth range in Northwest New Mexico.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

S E A L

MURRAY E. MORGAN, Member

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

vem/

Case 3614

SHIPROCK CORPORATION

Box 14274
Oklahoma City, Okla.

MAIN OFFICE

'67 JUL 11 AM 8 1

7 7 67

Oil Conservation Commission
State of New Mexico
Sante Fe, New Mexico

Gentlemen


ATTN Mr Dan Nutter

Confirming conversations between you, Mr W E Skeen, President of Shiprock Corporation, Oklahoma City; Mr Larry Wilsey, his Engineer; and the writer, - we desire a change in the spacing regulations on the Shiprock-Gallup Field as presently covered in your Order R-1438 and R-2125.

Because the only energy bringing the oil into the bore hole in this shallow field, is gravity drainage, we desire to be permitted to drill wells closer than 300 feet apart, within the boundaries of our lease. No change is being requested to drill any closer than the present 165 feet to neighboring property.

We understand that this matter is on the Docket for hearing on July 12th, and we will be present.

Sincerely,


H E Shillander, for
SHIPROCK CORPORATION

HSs

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 12, 1967

9 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, Alternate Examiner:

CASE 3608:

Application of Union Oil Company of California for the creation of a new gas pool and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for Permo-Pennsylvanian gas production from its Forni Well No. 1 located in Unit I of Section 15, Township 22 South, Range 27 East, Eddy County, New Mexico, and for the promulgation of special pool rules therefor, including a provision for 640-acre spacing.

CASE 3609:

Application of Texas Pacific Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its J.P. Collier Well No. 4Y located in Unit G of Section 10, Township 11 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Northeast Bagley-Wolfcamp and the North Bagley-Upper Pennsylvanian Pools through parallel strings of tubing.

CASE 3610:

Application of Texas Pacific Oil Company for a dual completion, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Bluitt State Com. Well No. 1 located in Unit I of Section 32, Township 7 South, Range 37 East, Roosevelt County, New Mexico, in such a manner as to permit the production of gas from the Bluitt Wolfcamp and Bluitt San Andres Gas Pools through 2-inch tubing and the casing-tubing annulus, respectively.

CASE 3611:

Application of Texas Pacific Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Ella Drinkard Well No. 2 located in Unit E of Section 25, Township 22 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from undesignated McKee and Ellenburger pools through parallel strings of tubing.

CASE 3612:

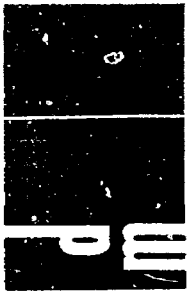
Application of Roger C. Hanks for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well in exception to the South Flying "M" Pennsylvanian Rules at an unorthodox location 660 feet from the South line and 660 feet from the East line of Section 24, Township 9 South, Range 32 East, Lea County, New Mexico.

- CASE 3613: Application of Sunray DX Oil Company for an amendment to Order No. R-1636-A, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment to Order No. R-1636-A, which order established special rules governing the operation of the Sunray Mid-Continent Central Bisti LPG-Gas-Water Injection Project, Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico. Applicant seeks the reclassification of said pressure maintenance project, for the purpose of filing reports, as a waterflood project.
- CASE 3614: Application of Shiprock Corporation for an amendment to Order No. R-1438, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-1438, which order established special rules for the Shiprock-Gallup Oil Pool. Applicant seeks the deletion of that provision of said rules which provides that wells shall not be located closer than 300 feet to the nearest well producing from the same pool. Applicant would further amend said rules to permit the drilling of wells closer than 165 feet to the outer boundary of the quarter-quarter section, but in no event closer than 165 feet to the boundary of acreage owned by an offset operator.
- CASE 3615: Application of Humble Oil & Refining Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Paddock (San Angelo) Unit Area comprising 3758 acres, more or less, of Federal, State and Fee lands in Townships 21 and 22 South, Range 37 East, Lea County, New Mexico.
- CASE 3616: Application of Humble Oil & Refining Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Paddock (San Angelo) Unit Area by the injection of water into the Paddock formation through six wells located in Section 35, Township 21 South, Range 37 East, and Section 2, Township 22 South, Range 37 East, Paddock Pool, Lea County, New Mexico.

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 12, 1967

IN THE MATTER OF:)

Application of Shiprock)
Corporation for an amend-)
ment to Order No. R-1438,)
San Juan County, New Mexico.)

Case No. 3614

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case 3614.

MR. HATCH: Case 3614, Application of Shiprock Corporation for an amendment to Order No. R-1438, San Juan County, New Mexico.

MR. NUTTER: I will ask, are there any appearances in this case?

MR. COOLEY: William J. Cooley, Burr & Cooley, Farmington, New Mexico, on behalf of Universal.

MR. MORRIS: Mr. Examiner, I'm Dick Morris of Montgomery, Federici and Andrews, Santa Fe, New Mexico, appearing on behalf of the applicant, Shiprock Corporation. We'll have one witness, Mr. Wilsey and I ask that he stand and be sworn at this time, please.

(Witness sworn.)

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

MR. MORRIS: Mr. Examiner, at the outset of this case, I would like to ask the Examiner and the Commission to take administrative notice of the record including the transcript of testimony in Case 1797, which resulted in Order No. R-1438, which was the original application of Universal Oil Corporation for the creation of the Shiprock-Gallup Pool and for special rules and regulations in the pool. I will also

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ask the Examiner, of course, to take administrative notice of the special rules and regulations that have been entered for the pool. Also to make the background of the history of this pool complete, we would ask the Examiner to take administrative notice of Case 2430 which resulted in Order No. R-2125, which was the application of Royal Development Company for several unorthodox oil well locations in this pool. I might mention that Royal Development Company is the predecessor to the Shiprock Corporation, the applicant in this case.

MR. NUTTER: We will take administrative notice of those cases and orders.

MR. MORRIS: I have extra copies of those orders if I may tender them.

LAWRENCE E. WILSEY

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Wilsey, will you please state your name and where you reside?

A My name is Lawrence Earl Wilsey, I reside in Stillwater, Oklahoma.

Q And are you appearing as a consultant here today for Shiprock Corporation?

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A Yes, sir.

Q Have you previously testified before the New Mexico Oil Conservation Commission or any of it's Examiners?

A No, sir.

Q Would you briefly state your education and your experience in the petroleum industry?

A Well, my experience in the petroleum industry starts with my childhood, I was raised on an oil lease, I attended the University of California at Berkeley, graduated with a Bachelor of Science in petroleum engineering in 1947. In July of 1947, I went to work for Stanolind Oil and Gas Company which is now Pan American Petroleum. I held various engineering positions in the field, district, division and general office engineering department. I later worked for their research department in a liaison position between the engineering section in the laboratories, working primarily with applications and new reservoir techniques. In 1955 I left Stanolind and went to work for an independent operator out of Tulsa, Oklahoma as the manager of production and stayed there about three years and then I moved to Stillwater and worked for an oil company there and did various consulting jobs. While at Stillwater, I've also taught in the university in the engineering school.

Q Mr. Wilsey, while you were employed by the Stanolind Oil and Gas Company, did you do any work or participate in any

studies that would be of particular significance with respect to the application before the Examiner today?

A Yes, sir, the first technical paper I co-authored dealt with gravity drainage, which is the primary recovery mechanism in this field and subsequent paper dealt with the well stimulation in project zone of treatments.

Q In gravity drive reservoirs or --

A The work in gravity drive reservoirs was primarily a reservoir paper, developing a means of predicting the behavior of the gravity drive reservoirs which as a side product, it also predicted the performance of oil drive and combination drive reservoirs. The well stimulation problem is applicable to any recovery mechanism.

Q And are you familiar with the development of the Shiprock-Gallup Pool and are you familiar with the application of Shiprock Corporation in this case?

A Yes, sir, I am.

MR. MORRIS: Are the witness' qualifications acceptable?

MR. NUTTER: They are.

Q (By Mr. Morris) Mr. Wilsey, will you refer to what has been marked as Exhibit Number 1 and Exhibit Number 2 in this case and state to the Examiner by reference to those exhibits where this pool is located, what kind of pool the

Shiprock-Gallup Pool is and discuss generally the development that has taken place in this area?

A The Shiprock pool is a shallow oil pool, dipping generally to the east, on the order of a hundred plus feet per mile. It has very low solution gas-oil ratio and the oil is essentially inert as an oil and gravity system. The reservoir characteristics are unique despite the shallow depth, the gravity of the oil is up in the fifties, it's a very light oil. And, the permeability of the sand is extremely high. On the order of one to three darcies some of it, some of it is tight but the good parts of the sand are very permeable. The first production from this field came in 1959, sometime in the middle of the year, the first sales were in August. Since that time, approximately forty or fifty wells have been drilled in the area and they pretty well define the limits. On the south it is defined by a fault system. On the east it's defined by poor sand development and water. To the west there is poor sand development although the formation does outcrop and I don't think it's closed in that direction. To the north, I think it is also limited by poor sand development but the data I have is incomplete in this direction. The gravity of the oil changes slightly from the lower end of the formation to the upper end. It's about two or three degrees API, getting higher gravity as you move to the west, which is the high

end of the field. Wells are usually drilled with air because the formation contains water sensitive minerals and a little water on these, on the cores that have been tested, cause them to lose their permeability. So that the oil that's to be recovered there will be recovered primarily by gravity drainage.

Q Mr. Wilsey, is this sand development, has it proven to be relatively even as far as the permeability and porosity are concerned throughout this field?

A I don't know what you mean by "even". Some of the permeability is the over darcy and some of it, the poorly developed areas have probably been in the millidarcy range.

Q I see. You find highly developed sections and you find other sections that are at least in comparison, much more poorly developed?

A Yes, sir.

Q Referring to Exhibits 1 and 2 now, Mr. Wilsey, this larger plat being Exhibit 1 and the smaller one being Exhibit 2, will you state where these, what the development in the field has been up to the present time, who the operators are --

A The present operators are the Shiprock Corporation which operates the well shown in Exhibit 1 which is a superstat of a map showing the well location and the depths, sub-C, it isn't sub-C, it's the plus elevations of the formation. It shows the sand thickness and the initial potential, I believe,

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on some of these wells. These initial potentials were taken usually by baling tests. Exhibit 2 is a map on a different scale but it lies just to the north of Exhibit 1, but they're on the same scale, the heavy dashed line on the top of Exhibit 1 would be the south range of the northern property which is owned by Universal and operated by Universal.

Q Now, on Exhibit 2, I notice there are some wells that are shown in black, there are some wells that are shown in red. What is the significance of that?

A The wells shown in black are the wells located as shown from the intentions to drill in the Commission forms. The red wells or red dots show the location of wells that exist but that we find no record for. Now, these wells are located approximately by lining up the wells at the south, we know exactly where their locations are and we think the red dots are substantially correct. They may be a few feet different but they're just about right.

MR. NUTTER: You did determine the presence of these wells by physical inspection?

A Yes, sir, not even a fence to look across, just look up the hill.

Q (By Mr. Morris) Now, Mr. Wilsoy, how deep are the wells in this field, so far you have designated them by the plus sub-C elevation?

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A They are about a hundred feet deep.

Q Are you familiar with the history of production in this area?

A Based on sales, yes, sir.

Q All right, would you summarize for the Examiner, the current state of production and the accumulative production in this field?

A The production figures or the sales figures that I have are through 1966 and would be effective the first day of 1967. When the wells are originally completed, they produce, oh, from one to possibly ten barrels per well and they soon settle down to where the lease production has been running, approximately four to seven thousand barrels per year. I plotted the monthly sales and the production appears to be leveling out on the two leases.

Q In terms of barrels of production per day, from all of the wells that Shiprock Corporation operates in this field, what magnitude of production are we talking about?

A In February of last year we did some stimulation work and prior to that time, they were selling about ten barrels per day. Now --

Q Was that from the whole field?

A No, that's from Shiprock's operative wells and Universal's wells were about the same.

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Q I see.

A Since that time, the production on Shiprock's leases has settled down to approximately forty barrels per well.

Q Per well?

A Per property. There are two tank batteries and there are four leases but the aggregate production is forty barrels per well, per lease. Excuse me.

Q All right. Now, if I understand you, when you say "per lease," do you mean by this that Shiprock Corporation from all its wells that it operates in the Shiprock-Gallup Pool is producing approximately forty barrels per day?

A Yes, sir.

Q Do you have an estimate of what the daily production is from the best producer on the Shiprock Corporation lease?

A It's a rough estimate because so many wells go into one tank battery but figuring what the production must be when a well goes down, we think that the best well is producing about six to seven barrels per day and, of course, the poorest wells are producing about a barrel or perhaps even less.

Q Now, does the Shiprock Corporation have the comingling authority for producing these wells in the common tank battery?

A Yes, sir.

Q To date, what has been the accumulative production from each of the two properties in this pool?

A The Universal operated properties up to January 1st, 1967, sold 44,543 barrels and the Shiprock operated properties had sold 29,324 for a total of 73,867.

Q Mr. Wilsey, are you familiar with the well location requirements of the special rules and regulations that are presently in effect in this pool?

A Yes, sir, I am.

Q What is sought by the application of Shiprock Corporation in this case?

A The present rules require that a producing well be no closer than three hundred feet to another producing well and our problem here is to try to strategically locate the wells in the best, lowest sand that we can find so as to best take advantage of the gravity drainage mechanism which is operative. And what Shiprock Corporation wishes to do is to have authority to locate these wells as best they can, based on the information they have now and the information they may gain by additional drilling.

Q Then, as I understand you, Mr. Wilsey, Shiprock Corporation is seeking exception or rather amendment of the special rules and regulations to eliminate the requirement that the wells be located three hundred feet apart?

A Yes, sir, with the provision that we have no desire to crowd anybody else's line.

Q Yes, sir. You would leave intact the provision of the rules that would require the well to be located at least 165 feet away from the lease line?

A With the exception that if Shiprock owns both leases on either side of the line, I see no reason to consider them a separate lease in that there would be no unnecessary drilling requirement if they were to drill actually on the line.

Q I see.

MR. NUTTER: In other words, what you mean, the lease line owned by another operator?

A Yes, sir.

MR. MORRIS: In that respect, Mr. Examiner, I point out that Order No. R-2125 that we have referred to, did permit by exception of the special rules, the location of seven wells, I believe, closer than 165 feet to the quarter-quarter section line but those wells were located so that they were not any closer than 165 feet to the lease line.

MR. NUTTER: I might ask at this point now, if we, according to the application or according to the notice of this case, "Applicant would further amend said rules to permit the drilling of wells closer than 165 feet to the **outer** boundary of the quarter-quarter section, but in no event closer than 165 feet to the boundary of acreage owned by an offset operator." Now, if it were acreage owned by the same

operator but on a different lease, this might affect royalty ownerships. Are the royalties identical under these various leases?

A I'm not a title attorney but, I understand it is all on the Navajo land.

UNIDENTIFIED PARTY: It's all one lease.

MR. NUTTER: As far as the royalty is concerned, it is one lease?

A Yes, sir.

MR. MORRIS: I think Mr. McGrath of the U.S.G.S. is present. He might be able to confirm that, Mr. Examiner.

MR. McGRATH: It's all the same.

MR. NUTTER: Thank you, sir.

Q (By Mr. Morris) Mr. Wilsey, in your opinion, will approval of this application enable all operators in this pool to achieve a better drainage pattern?

A Yes, sir.

Q And what would be the ultimate result of that better drainage pattern?

A It would be two results, first result is that the oil that is to be recovered will be recovered sooner and the second is, in all probability, a well location will be found which will be lower than our present best well and will recover oil that would otherwise be lost.

Q All right. Does the aspect of premature abandonment have any application to this professionally?

A Yes, sir, with these little shallow wells, you can operate several of them just as cheaply as you can operate one because it doesn't take very long to get around them. Your pulling expenses there are low and if you have several wells, why, you could operate at a lower per well abandonment rate than you could if you had just one.

Q Are these wells pumped?

A Yes, sir, they're pumped with an electric pump jack.

Q Have you considered the effect of your proposed amendment to the rules on the correlative rights both of Shiprock Corporation and of Universal Oil Corporation?

A Yes, sir. We're not asking for any right for Shiprock that we don't ask for anyone else that's operating in this field.

Q In your opinion, will the correlative rights of any operator in this pool be impaired by the approval of this application?

A It will not.

Q In view of the depth of the wells in this field, is there any safety hazard or any other hazard to drill wells closer than three hundred feet a part?

A No, sir.

Q Mr. Wilsey, have you examined Exhibits 1 and 2 and are they, do they accurately reflect the information shown thereon to the best of your knowledge and belief?

A Yes, sir, I have.

MR. MORRIS: At this time, Mr. Examiner, we would offer Applicant's Exhibits 1 and 2 into evidence.

MR. NUTTER: Applicant's Exhibits 1 and 2 will be admitted into evidence.

(Whereupon, Applicant's Exhibits 1 and 2 were offered and admitted into evidence.)

MR. MORRIS: That's all I have, Mr. Wilsey, at this time.

MR. NUTTER: Does anyone have any questions of the witness?

MR. COLLEY: I do.

MR. NUTTER: Mr. Cooley.

CROSS EXAMINATION

BY MR. COOLEY:

Q Mr. Wilsey, you said that the area of the pool is relatively well defined?

A Well, compared with other fields because of the shallow depth you can afford to drill a great many more wells than you could if it was deeper.

Q Approximately how many wells have been drilled in the pool on both sides of the line?

A Well, we can count them here on just the area that we have got shown here, there's 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 26, 28, 30, 32, 33.

MR. MORRIS: That is 33 that you just counted on the Shiprock property?

A Yes, sir. There are other wells drilled out here to the east which are off of this plat.

MR. MORRIS: Are they producing?

A No, sir, they are not.

Q (By Mr. Cobley) They help define the limits to the east, do they not?

A Yes, sir. And then there are 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 21 or more drilled to the north and as you drive out over that reservation, you see quite a few blue shale chips, there are a lot of other wells which have been drilled which I don't have the location of but I suspect they could have been looking for this same pay. So, there have been quite a few wells drilled considering the area it covers.

Q Those that you count, there are in excess of 50 wells in what area, speaking in terms of 40 acres, 160 acres?

A In one or two square miles, there are well in excess of 50 wells drilled.

Q Well now, that is a much smaller area than one or two square miles that you referred to?

A All right. These two plats.

Q Yes.

A Yes, sir, I believe there are 52 or 53, if I counted right.

Q And how many acres does that 53 wells cover?

A Let's see, there is 40, 80, 160 and there are three 40s up there, it would be 280 acres, wouldn't it?

Q Would you tell me how you arrived at this 280 acres?

A There are seven 40s, aren't there?

Q Are you counting --

A I'm counting all of this K Lease.

Q I see. And the one to the right as well, I presume?

A The L Lease and also all of the H and the F Lease of Universal.

Q You feel that 280 acres fairly encompasses the known limits of the pool?

A For the information I can get, to the west and to the north, I don't think they are as well defined as they are to the south and to the east.

Q Now, directing your attention to what you might call the heart of the pool area, where your best production is and that of Universal as well, it's about 160 acres, is it not?

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A Approximately, yes.

Q For the greatest concentration of wells?

A Yes.

Q And the greatest amount of production?

A Yes.

Q In that 160 acres which I'm referring to which would be the center of your Exhibit 1 and the two offset 40s to the north, is that correct?

A Yes, sir.

Q How many wells are in that particular 160?

A Let's see, there would be 2, 4, 6, 7 and 5 is 12, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42 wells.

Q 42 wells in the heart of the pool?

A Yes, sir.

Q Is it fair to say that 90 percent or better comes from that 160 acres?

A I don't believe --

Q It's the best majority of the number?

A Yes, but I wouldn't have any way to put a number on it.

Q The common tank batteries and so forth?

A Yes, sir.

Q Referring to the same 160 acres, is it true that this is the area where you have the greatest pay thickness and the

greatest permeability?

A Yes, sir.

Q What is the pay thickness, effective net pay, if you can get a range?

A That's like saying how tall is a man. In each well it's different but I'd say it probably ranges in the order of four to six feet. On the edge it will feather out and be less than that.

Q Is that net pay, four to six feet? Isn't it true that all of this four to six feet that you're talking about is completely barren stringers within that four to six feet?

A Yes, sir, there are but, the barren stringers and the cores, let me back up and say what I have to base my figures on are some core analyses that I have seen reports on and some cores that have been cut. The cores that I have seen cut, will often have a stringer of shale in the middle of the pay but that stringer may only be an inch long and may even disappear in the core, itself, so, they are not continuous. So, that I feel like if we use the gross thickness and the gross porosity, you will get the right reservoir space.

Q What order of permeability is necessary for a well to be productive in this pool, commercially productive?

A That depends on how it's completed.

Q Isn't it true that it has -- I don't mean to

interrupt.

A Go ahead.

Q Isn't it true that you need at least a darcy for a well to be productive?

A I don't think so.

Q Where would you put this "at least" figure?

A You need to be able by fract treatment to get the production up two, three, four barrels a day and, the problem you run into when you try to fix a figure as to what the permeability has to be, I'm ashamed to admit this but it's true, that the main thing that you usually do when you fract treat a well is undo the damage that you did when you drilled it, so that when you drill a well, and to make a well one time, say with "X" millidarcy permeability, you may drill another well with identical permeability but due to the difference in the drilling of it, not make a well so, I'm kind of a little bit afraid to put a number on it because I can't back it up. I don't know what it is.

Q Would you agree with this, that in this pool, that due to the extremely low pressure, extremely low depth, comparatively low depth of the pool that an unusually high permeability is necessary for you to have a commercially productive well? By "unusually high," I mean higher than you would ordinarily expect, say, in a thousand foot or five thousand foot pool?

A Yes, that's true when you have less pressure, less potential, you have to have higher conductivity.

Q And this is rather high conductivity in this pool?

A Yes, sir, it is.

Q And you have a relatively non-viscous oil?

A Yes, sir.

Q Which aids and assists in communication, does it not, and drainage?

A Yes, sir.

Q Can you tell me what the initial pressure was in this pool, as best you can calculate?

A No, sir. That data I had was so scattered, I couldn't put any -- It was low but, I wouldn't put a number on it.

Q In the order of 10 to 12 pounds?

A Probably, maybe even less than that.

MR. NUTTER: Did any of the wells ever flow?

A Not to my knowledge.

Q (By Mr. Cooley) This pressure is created by hydrostatic head on --

A That's my belief.

Q --on tilted plain of the reservoir?

A Yes.

Q And the production mechanism I believe you testified to, is gravity?

A Yes, sir, primarily. We will take the solution gas in when we can get the help but it's going to be primarily gravity.

Q Primarily gravity drive?

A Yes.

Q And, as a result of all of these combined factors, you have a relatively low pressure differential between the well bore and the reservoir project?

A Yes, sir.

Q I mean, on the order of two or three or four pounds?

A Yes, sir, that's correct.

Q What would you estimate the present pressure of the pool to be?

A I don't have any data on it.

Q Well, since it's hydrostatic head, what percent of the oil would you estimate has been produced from the pool?

A Probably not very much.

Q Would you say that this pool and particularly the 160 acres that we have been referring to as the heart of the pool, is in complete pressure communication?

A Yes, sir, I believe it is.

Q And, the production of one group of wells in the pool, irrespective of lease lines, in your opinion in this 160 acre production of other wells in that same 160, does it not?

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A Yes, sir.

Q And that would be as much as what, four or five thousand feet?

A No, 1320 times two, it would be 2640 through the heart of it, that would be about as far as you can go across it.

Q And you feel there is pressure communication over at least 1320 feet?

A I don't see any evidence to contradict it.

Q You're aware of when the pool was discovered, are you not?

A Yes, sir.

Q And by whom?

A By the record, yes, sir.

Q And does the record reflect that Universal Oil Corporation discovered the pool?

A Yes, sir.

Q Have you examined the records and determined when your predecessor Royal Development commenced operation in the pool?

A The first sales were in 1961, in April.

Q In April of '61?

A Yes, sir.

Q And reflect how much oil that Royal Development produced in 1961?

A 3728 barrels in nine months.

Q And during that same period, how much oil did Universal produce?

A 8723, by my addition.

Q So, Universal was still by far the largest producer in the pool, at that time?

A Yes, sir.

MR. COOLEY: Will you mark this as Universal's Exhibit 1, please?

(Whereupon, Universal's Exhibit 1 was marked for identification.)

Q (By Mr. Cooley) I hand you what has been marked as Universal's Exhibit 1, which represents a production decline curve of the entire Universal lease from the inception of the pool through 1956. I believe it's the same figures that you have attached?

A Yes.

MR. MORRIS: Excuse me, Mr. Examiner, along this line of questioning, I think before Mr. Wilsey is asked to testify with respect to one of the Universal's exhibits here, he ought to have the opportunity at least to compare his production data.

MR. COOLEY: That's my next question.

MR. MORRIS: And, we have somewhat of a problem here

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that there is self-serving, not necessarily self-serving but data on here with respect to the economic limits of the pool and I'm not sure that this -- That Mr. Wilsey will agree with that or not and I would suggest that instead of referring to this exhibit that if Mr. Wilsey is to be cross examined with respect to production data, that he be examined with respect to the tabulation that he says he made on direct examination.

MR. NUTTER: I quite agree with you, Mr. Morris, to this extent, that Mr. Wilsey does have evidently some production figures there.

MR. MORRIS: Yes.

MR. NUTTER: I think that the exhibit, the numbers on Mr. Wilsey's exhibit, as far as actual production through 1966 agree with the production figures shown on the exhibit. Then, we can take this exhibit up to that point. I think any extrapolation or the arrival at any economic limit would have to be approved by whoever built this extrapolation.

MR. COOLEY: The left portion is to be cut off at that point.

MR. NUTTER: We'll draw a red line through to the year 1966.

Q (By Mr. Cooley) Just the left portion of the exhibit is all that is intended to be inquired into and my next question

is, do these graphical presentations agree with your examination of the records?

A I can't answer that because I don't know how many wells were producing each year.

Q Well, don't you have a total productivity, production?

A Yes, but, I don't have average barrels per well per year. I don't know the per well so I can't get to what I have from here.

MR. NUTTER: This is barrels per year, I think.

MR. COOLEY: This is just barrels per year from the Universal lease, irrespective of what it may otherwise state.

MR. MORRIS: It says wells.

MR. COOLEY: Where?

MR. MORRIS: At the top of the Universal --

MR. NUTTER: Mr. Wilsey, you have your tabulation there of production by the companies, have you not?

A Yes, sir. Let's try 19 --

MR. NUTTER: Would you just take and read the figures for each of these years for each company?

A Okay.

MR. COOLEY: '59.

MR. NUTTER: 1959.

A 1959 is 2447.

MR. NUTTER: Now, this is Universal?

A Yes.

MR. COOLEY: 2447?

A Yes, sir. None for Royal. Don't we have a Thermafax copy?

MR. MORRIS: I ask the Examiner to mark this copy as Applicant's Exhibit Number 3.

(Whereupon, Applicant's Exhibit Number 3 was marked for identification.)

MR. NUTTER: Now then, we have the points on Universal's Exhibit Number 1.

A I'm quite sure those are per well because in 1960 I have 69 and 71 and here you come up with eight hundred and something. So, you would have to have a per well in it.

MR. NUTTER: This is a per well rather than the lease total?

A Yes, sir.

MR. NUTTER: And you have no way of knowing --

A I have no way of knowing if the wells were drilled and how many of them were operative in how many months.

MR. NUTTER: I see.

MR. COOLEY: I withdraw any questions concerning it.

Q (By Mr. Cooley) Returning then to the line of questioning I was pursuing a moment ago about the pressure communication of the pool, the answer you gave about correlative

rights was that you were going to afford or offer and suggesting that all of the operators in the pool be afforded the same opportunities to drill, of course, in the pool?

A Yes, sir.

Q This area of 160 acres in the heart of the pool has 42 wells in it?

A Yes.

Q Now, if Universal did not feel that in this stage of the completion of the pool that it is economically feasible to drill additional wells and Shiprock proceeds to drill additional wells, they will have an additional drainage effect, will they not, on Universal production?

A If Universal doesn't adequately drain their lease, Shiprock, if they --

Q Do you understand my question?

MR. MORRIS: I think the witness was answering the question.

A The thing I was trying to say was, we can't control what Universal does. If they adequately --

Q (By Mr. Cooley) That's not my question.

A --develop and operate their lease as Shiprock does, they will be protected to the same degree that Shiprock was.

Q You haven't answered my question.

A Then, I didn't understand it.

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Q I didn't think you did. If Shiprock drills, if the order is granted and Shiprock drills additional wells and Universal for any reason, for some reason, does not, there will be a disturbance of the present correlative rights, between the ultimate recovery of the two operators, is that correct?

A The status quo will be changed, yes.

Q In favor of Shiprock?

A The one who is the most prudent operator, yes.

Q In favor of the one who drills more wells?

A That's equivalent in this case.

Q Now, under the present spacing rules, the pool is developed is it not, by both operators and we have achieved a status quo as you have referred to?

A Essentially, there is room for some stocking but not much.

Q For all practical purposes, it is developed, is it not?

A Yes, sir.

Q And a status quo has been achieved between the two operators? I mean, you referred to the status quo a moment ago. I assumed that you had some concept of what that meant?

A The reason I'm hesitating to answer is, they both, the two operators, haven't obeyed the same rules, one of them has drilled in accordance with the spacing regulations and one

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of them hasn't.

Q There is nonetheless a status quo that presently exists?

A Yes.

Q And if this order is granted, Shiprock proposes to drill additional wells, the status quo will be disturbed or Universal will be put to the task of drilling additional wells, is that correct?

A That's correct.

Q They will have to drill additional wells to protect themselves?

A Or perhaps work on the ones that they have. I don't have enough of their data to say whether they can do it without additional wells or not.

Q Well, if Universal does not drill additional wells and Shiprock does, your testimony a moment ago was that the status quo would be disturbed, in favor of Shiprock?

A It probably would.

Q Because of the --

A I want to qualify that answer. It might not be so but I think it probably would be.

Q This is true because of the practically pool-wide pressure communication and drainage area of the entire pool being in communication?

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A Yes, sir.

Q Now, one of the factors that you mentioned a moment ago which in your opinion would result in the drilling of wells by operators would I assume, be recovery, earlier recovery under the rules?

A Yes, sir.

Q That would not change the ultimate recovery would it?

A It would change the value of the ultimate recovery but that particular part there would be fringe benefits, probably, in all probability in that the well would be more strategically located. It is not in the case.

Q Now, you had two facets of your answer. One was earlier recovery?

A That's one of them.

Q I want to deal with this first.

A All right.

Q This does not save any oil or recover any more oil than would otherwise be recovered?

A No, but it saves money.

Q But, you are having to spend money to get this earlier recovery, are you not?

A Yes, sir.

Q What are well costs out there?

A That depends on how you go about it.

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Q Well, if you're granted this rule, you're going to drill --

A I think we can drill and complete them between a thousand and fifteen hundred dollars a well.

Q Is this including a fract job?

A Yes, sir.

Q What is the net value of oil to, produced oil to Shiprock?

A I've roughed it out at about \$2.00 per barrel.

Q Net value?

A Yes, sir.

Q After all taxes, royalties, operating expenses?

A Operating expenses won't be appreciatively changed from those that are there right now.

Q But, you do have operating expenses, do you not?

A Yes, sir.

Q And they represent this figure?

A Yes, sir.

Q And this \$2.00 a barrel is taken into consideration?

A No, sir, I would suggest -- See, what the operating expenses would be per barrel will depend on what the producing rate per day is.

Q What is the net value of their oil being produced, today?

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A About a dollar and a quarter.

Q About a dollar and a quarter?

A Yes, sir.

Q And you're going to spend fifteen hundred dollars to drill additional wells?

A Yes.

Q And, could you calculate that out to see how much you have to have for pay out, at a dollar and a quarter?

A Well, you'd say, what is that, about 1250 barrels, something like that. It's not very much.

Q And, your best wells produce six or seven barrels a day, is that right?

A Yes, sir.

Q How many years will it take to pay out one of these wells?

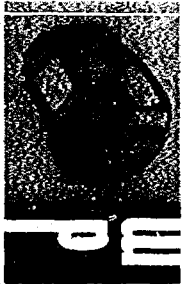
A About 200 days.

Q At a dollar and a quarter a barrel?

A No, 200, if I drill, I'm not going to have to add anything to my operating expenses, I have already got those paid for.

Q You don't think it would be legitimate to -- You have no additional operating expenses whatsoever, as a result of additional wells?

A Very little. It's so little that it's within the



margin of error of projection. You pull those things by hand.

MR. NUTTER: Pulling units here have two legs instead of eight wheels?

A Yes. And he's on the payroll, anyway.

Q (By Mr. Cooley) Are your operating expenses greater or lesser than that of Universal, if you know?

A I don't know.

Q Would you explain to me how several wells, I mean additional wells, can make it possible for you to go to a lower economic per barrel per well abandonment rate?

A No, per well, you put another "per" in there.

Q I believe you made a statement that several wells would allow you to go back to a lower per well abandonment rate, is that correct?

A Yes.

Q In that statement, would you explain that?

A Suppose I have ten wells here and it costs me, to make numbers even, a thousand dollars a month to operate those wells, I can produce those wells, then, my oil is a thousand dollars a month. If I have twenty wells, it still costs me all, my personnel is the same. And it costs me a thousand dollars to operate and I've got twenty wells to operate and I can operate those wells to half that, whatever that rate was, and so on.

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Q The second half of your answer a while ago was that this order to abandon would be beneficial probably because a lower well, more strategically located wells would be found?

A Yes.

Q Do you have any assurance of this?

A Well, I wouldn't use probably if I had assurance, I would make the statement.

Q I mean, what indications do you have that you will find a lower well and if so, where would you drill it?

A I would start looking on the I lease and from that starting point, it would be a step-wise process.

Q Now, on the I lease you presently have 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 holes that have been drilled, is that correct?

A Yes, sir.

Q Two of which are in the process --

A Process of being plugged because they are mechanically, not profitable to operate.

Q And you feel that 13 holes in one 40 acre tract is not enough to determine where the most strategic location is?

A Yes, sir, I looked at a core yesterday afternoon, 88 feet from another well and found that the pay had moved on me.

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Q Well, at any rate, it is erratic, is it not?

A Nature is erratic, and this is a natural occurrence.

Q But, whether you found lower wells or not, you wouldn't increase your overall production, would you not?

A Yes.

Q At that lease --

A Per day production would be increased.

Q Not necessarily your ultimate production but your per day production would be increased?

A Yes, sir.

Q And the greatest advantage of this to you of getting your oil out sooner would be because of your operating costs would be relatively constant and your per day production would go up, making your per barrel operating cost lower?

A Right, yes, sir.

Q Do you have electric pumps on your wells?

A Yes, sir.

Q And do you have an electric generating plant out there?

A Yes, sir.

Q Are you aware of what energy Universal uses to produce their wells?

A Yes, sir.

Q Is that --



A I got sand in my eyes yesterday. Wind is what they use.

Q Wind is what they use?

A Yes.

Q They have quite a bit of that up there in San Juan County?

A Sporadically you do, yes.

Q Is their productions, as reflected by the Commission records, reflect any discrepancy between what you produce with electric pumps and they produce with windmill? What I'm getting at, do you think you could produce more oil out of your wells with electric pumps, if you owned them?

A I don't think that you can compare past production because there has been a lot of education going on during this period. There have been mistakes made which won't be made, again. I don't mean that as a reflection on anybody. That's the only way you learn, is by mistakes.

Q Right. Well, in summation, if this application is granted, your company definitely intends to drill a number of additional wells in this pool, is that correct?

A That's my understanding, yes.

Q And how many, do you know?

A The number in position isn't known, it would be dependent on the results of the drilling.

Q Well, would you have an initial program of one or five or ten or something like that?

A In that range.

Q Well, that's quite a range, one to ten?

A Yes, it is.

Q Could you be more specific?

A Probably five or more.

Q Five or more. And this would be five times \$1500.00 or more?

A Yes, sir.

Q And if Universal does not keep pace, they will be drained, is this correct, I mean, we have been through this before, if they don't keep pace, they will be drained?

A Yes, sir.

Q So, in essence, this would -- As you propose this, there is no limit to the number of wells you could drill in there, is this correct, I mean, except the physical limit of getting the rigs on the land?

A Well, economics will limit it.

Q But, legally, that is what you're proposing?

A Right.

Q Within the 165 foot nomans-land there, I mean, beyond that?

A Right. Can I enlarge on that answer a little bit,

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the purpose of additional drilling is to minimize the radial nature of production in the wells and try to approach a linear system which is a much more efficient flow system and when you reach the point where further wells don't cause the flow to be near linear but just get in each others way, then there is no point in drilling anymore wells.

Q But, isn't this true that if your operating costs did not remain constant, you wouldn't be considering drilling additional wells?

A Well, if you say "relatively constant" --

Q Well, relatively constant?

A Yes.

Q If your operating costs went up per well -- If your present per well operating costs went up with these additional five or ten in the same ratio, you wouldn't be considering it?

A I don't know whether I'm in position to answer that for the reason that there is a lot more that goes into the decision to drill a well than the rate of return.

Q Economics is one of the biggest ones?

A Yes, but, of course, taxes is the biggest one in that so, that's the reason I can't answer it.

Q What did your stimulation treatment in February cost you per well, how many wells did you stimulate and what

did they cost?

A I don't have those numbers directly but it's on the order of six to eight hundred dollars.

Q That's including pulling the well and putting it back on?

A Yes, sir, that's the reason, I haven't added all those up but it's in that range.

Q Six to eight hundred dollars and how many barrels per well per day do you think you would increase your production?

A About five on an average.

Q And how long, at your present rating costs and your net value, how long would it take you to pay out one of these stimulations?

A Let's see, let's divide it out, I just won't make a mistake. Say it was eight hundred and a quarter, it would be a thousand days, wouldn't it, it would be three, eight hundred, no, it can't be right. A thousand days, wouldn't it?

MR. NUTTER: It can't be. Four-fifths of eight hundred.

A Yes, I went the wrong way. It would be at least, approximately six hundred days.

Q (By Mr. Cooley) Almost two years to pay for a fract job?

A That's not an entirely accurate presentation because

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the operating expenses that we're charging against this well, we are going to charge, anyway. There was nobody hired now that wasn't there before.

Q But, you had a direct out of pocket expense of \$800.00 that you didn't have to spend, right?

A Right.

Q To get five barrels a day extra production?

A Yes, I got five barrels that I wouldn't get before, doing the same thing so really, what I got was \$10.00 bonus, in round numbers which reduces at that rate to about 80 days.

Q Again because of your constant overhead?

A If I had to hire someone else, had to go to other expenses, for instance, if I produced large volumes of water, that changes the picture but, I don't.

Q Well, in order to preserve the status quo or the correlative rights that we are referring to, the two operators in this pool, one has to keep pace with the other in the drilling programs, is that correct?

A In the production program, yes.

Q When you drill a well, it's dictated that Universal has to drill a well?

A You have to do something.

Q If you drill five, they drill five?

A Yes.

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Q If you drill 20, they have to drill 20?

A Yes.

Q To keep and preserve the correlative position?

A They have to do something to counter act it. Now, I won't say that they have to drill five wells or -- They might be real lucky and get over there and find a real thick place and do it with one well.

MR. COOLEY: No further questions.

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

MR. MORRIS: I have one question, Mr. Examiner.

MR. NUTTER: Mr. Morris.

REDIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Wilsey, in answer to a question asked to you by Mr. Cooley, you stated to the effect that one operator in the pool has drilled with his wells 300 feet a part and the other one has not?

A Yes, sir.

Q What were you referring to when you made that statement?

A Well in Exhibit 2, if you will look at well number 4 and the well marked directly to the northeast, approximately two hundred and thirty-some feet away, there are several wells

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like that --

Q If you would just start at the west side of the pool, would you point out all the examples you can see there of wells that are drilled closer than 300 feet a part?

A All right. Let's see, well number 7 and the well to the southeast of it. Well number 4 and number 4-A and the well to the southeast and the northeast of number 4. Number 2, which I think is, I don't see a well there on the ground and I think really that well should be over to, 165 feet to the west which removes that. That, I don't think is closer and then come up here to well 5 and the well to the southeast of it. I go to well 11 and 11-A, 8 and 8-A, 8 and 21-A, 8 and the well to the southeast of it. Well 2-A and well 9. And I believe that's all I see.

Q Okay. Are all of the wells located on, that you have just referred to, located on acreage operated by Universal?

A Yes, sir.

Q Are there any wells located on acreage operated by Shiprock that are located closer than 300 feet a part, to your knowledge?

A No, sir.

MR. MORRIS: All right. Thank you.

MR. NUTTER: Are there any further questions of this witness?

MR. COOLEY: Yes, Mr. Examiner.

RECROSS EXAMINATION

BY MR. COOLEY:

Q Mr. Wilsey, are you familiar with Order R-1438 that established the pool rules for the Shiprock-Gallup?

A Yes, sir, I've read it.

Q Are you particularly familiar with rule 1?

A Not by that name. Do you have a copy so I can look at it? I'm familiar but not that familiar.

Q I direct your attention to the final clause of rule 1 which is as follows: "Provided however, that said 300 foot restrictions shall not be applicable to wells projected to or completed in the Gallup formation which offset wells which were drilling to or completed in the Shiprock-Gallup Oil Pool on the effective date of these rules." In view of that exception, you don't mean to imply that any of the wells which you pointed out are in violation of the Commission's order, would you?

MR. MORRIS: I would point out to the --

MR. COOLEY: The testimony has an implication.

MR. MORRIS: Excuse me, I will make an objection.

I would point out to the Examiner that he's asking this witness for a legal conclusion obviously, based on the interpretation of the rules. It's not our intention here today to argue to the Examiner that these wells are located in violation to any

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rule but just that they are located closer than 300 feet.
That's all I want to establish.

MR. COOLEY: There seemed to be an implication that there was something illegal about these wells.

A That certainly wasn't my intention.

Q (By Mr. Cooley) Now, are you aware of what the, we'll call them red wells on your Exhibit 2, are producing or not?

A There are windmills on them.

Q Are you aware of whether they are producing, producing wells?

A No, sir.

Q There are windmills on each of the red wells?

A Yes, sir.

MR. COOLEY: No further questions.

MR. NUTTER: Are there any further questions of this witness? He may be excused. Do you have anything further, Mr. Morris?

MR. MORRIS: I have nothing further, Mr. Examiner, except a very brief statement. I would like to follow Mr. Cooley.

MR. NUTTER: Does anyone else have anything they wish to offer in this case? Mr. McGrath.

MR. McGRATH: P. G. McGrath, U.S. Geological Survey. We do supervise these indian lands for oil and gas production

and I do believe that if this application is granted, they would not only recover oil faster, they will recover more and I recommend the Commission approve it.

MR. NUTTER: Thank you. Mr. Cooley.

MR. COOLEY: Yes, Mr. Examiner, at the outset, I would point out to the Examiner, sub-paragraph B of New Mexico Statutes Annotated, 65-3-14, which states as follows: "That the Commission may establish a proration unit for each pool. Thus being the area that can be efficiently and economically drained and developed by one well and in so doing, the Commission shall consider the economic loss caused by the drilling of unnecessary wells. For the production of correlative rights, including those of royalty owners, the prevention of waste, the avoidance of augmentation of risk, arising from the drilling of an excessive number of wells and the prevention of reduced recovery which might result in produced recovery of the wells." Now, in reviewing this statutory mandate from the Legislature to the Commission, I want to reconsider, let's go back over sub-paragraph B and concentrate first on the clause which says "That a proration unit shall be the area that can be efficiently and economically drained and developed by one well." The applicant's witness testified that there is complete pressure in communication and drainage throughout this pool, the entire distance of it. The production from any area of the

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pool will effect productivity from any other area of the pool and considering this fact and the high permeability that exists in this pool, the existence of 42 wells in the heart of the pool where production exists and where the witness indicates that their drilling program would commence in quarter section I on their Exhibit 1, within this 160 acres. It is, in fact, already overly developed and one well in ten acres would undoubtedly drain the area. But, that, in view of his testimony, the communication and the pressure communication in the pool that we then proceed on the basis that one well will certainly, efficiently and economically drain two and a half acres in this pool. And in proceeding in the mandate, "And in so doing, the Commission shall consider the economic loss caused by the drilling of unnecessary wells." Now, it has been testified to that these wells cost approximately \$1500.00 a piece, new wells would, completed as Mr. Wilsey would complete them, and if Universal is to keep pace and preserve its correlative rights, it must enter into a drilling race so to speak, with the applicant and that these certainly, if one well will drain two and a half acres in the pool, as, I think is evident, the drilling of any additional wells in this pool, are unnecessary wells. Now, the economic loss to attend to the drilling of such unnecessary wells is disastrous, unnecessary and illegal. I have reviewed this statute many times and

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it seems to me that the avoidance of the augmentation of the risks arising from the drilling of an excessive number of wells is for all practical purposes, the same thing as preventing the drilling of unnecessary wells. No further comment is necessary with regard to that. I think that it's clear from the evidence presented in his testimony that there is a possibility, as strong as the witness would go in the recovery of additional wells, additional oil from this pool, as a result of drilling of additional wells. It's a probability, being based on the further hope that they would some place find a lower, more strategic position. There can be, there is no testimony, even of a probability of actually being successful, of so finding the strategic location. Accordingly, the only advantage that will result to the applicant in this case is that they will increase their daily production but not their ultimate recovery and thus there is no reduced recovery, as a result of drilling of too few wells as contemplated by this statute. The applicant has an expensive operation and a very marginal oil pool and, ridiculous as it may seem, Universal has been very successful with a windmill operation on these wells and had a minimum of trouble. And any discrepancy between the operating costs of windmill operated portions of the pool and an electric pump operated portion of the pool should not be grounds for precipitating a drilling race between these

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two firms, wherein, Universal will be compelled to keep pace in this unbridled drilling race or suffer a loss of oil and a violation of the correlative rights. It is Universal's contention that this pool has been for all practical purposes, developed as testified to by Mr. Wilsey on two and a half acre spacing and to go to any closer spacing than that would result in the drilling of unnecessary wells, the augmentation of risks and waste, economic waste of money and would not result in any additional ultimate recovery from this pool. Accordingly, we protest the granting of this application.

MR. NUTTER: Mr. Morris.

MR. MORRIS: Mr. Examiner, first, I would like to point out that in the original application by Universal, for special rules in this case it was pointed out by the witness for Universal, found on pages 7 and 8 of the transcript. in the case and I quote "It is necessary to space these wells rather closely in order to effectively drain the field." Also page 8 of the transcript, the witness continued says that, "The economics -- To the effect", this is not a direct quote, "To the effect that the economics of production would be better with more wells in the field." Now, at that time, it was before the Commission whether to actually pace and establish proration units for this field on something less than 40 or not. There was indication in the transcript that two and

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a half acre spacing was actually considered. Nevertheless, the Commission in the order, specifically established by rule 4 that it would be a 40 acre proration unit in this field and that the proration unit should have an allowable for the zero to five thousand feet range in northwest New Mexico. Here, we're talking about proration unit under current allowables and as they have existed for sometime here, as an allowable assigned to some 70 barrels a day. Referring just to the acreage operated by Shiprock, we have four 40 acre proration units. Yet, the entire lease, combination of all four of these proration units is producing only at the rate, present rate of 40 barrels per day. So, we are well below the allowables assigned for this pool. Certainly the drilling of a few more wells in this field, even if they be awful good wells, will not bring the production for any proration unit up to anywhere close to the normal unit allowable to which it is entitled. I think Mr. Wilsey has adequately covered but I will summarize, we have two aspects of waste that we're talking about here. First, unless the wells, unless wells can be drilled at strategic locations to recover this oil, it will not be recovered. There is a probability that it will not be recovered, at all. Regardless of the length of time involved. So, in view of that testimony, it is the location, rather than the actual amount of the acreage assigned or that can be allocated by rules of

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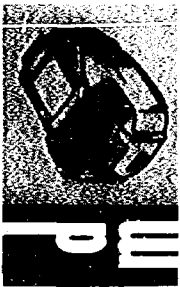
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averaging to any particular well, that is most important. We have another aspect of waste and that is waste caused by premature abandonment. The Commission is quite familiar with the statutory directive that premature abandonment be avoided. If Shiprock, by drilling additional wells and reducing its operating expenses, can prevent premature abandonment in this field, as was Mr. Wilsey's testimony, then there is another aspect of waste that the Commission certainly should consider. I think maybe the most important thing to consider in this case is that we are not asking for an exception to the rules with respect to the acreage operated by Shiprock. We're asking that the rules for the whole field be amended so that all the operators in the pool will enjoy the same opportunity. This is somewhat in -- I would like to draw a comparison here with what the rules have been here up to this time. Under rule 1 of the special rules and regulations, an exception apparently exists that would permit the operator, that would permit Universal to drill a well closer than 300 feet to a well that already had been drilled at the time the rules were established, or at least, I assume that that is Mr. Cooley's interpretation of that rule. That would have to be the interpretation in order to make these valid locations. But here, in the fairway of the pool, Universal has drilled not on a pattern of wells located 300 feet apart but it appears no more than 230 feet

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a part so, they have been enjoying a 300 foot between well requirement during the whole development of this field whereas, Shiprock has abided by the 300 foot between well requirement. It seems, well, basically unfair and a little strange at this point for Universal to complain of an amendment to the rules to prevent Shiprock to do what Universal has been doing during the whole life of the field. As far as the economics go, I don't know how far this Commission should concern itself with the relative economics of operators. Several times in the cross examination, I was tempted to object on this ground. However, I realize that this Commission does concern itself, at least to some extent with economics. I don't think the Commission should concern itself to this extent with economics, if an operator such as Shiprock is willing to spend the time and money making studies in this field and believes on the basis of that information that it can economically drill the additional wells, recover additional oil and thereby prevent the waste, they should be given the opportunity to do so. When that opportunity also is afforded to Universal there can be no violation of correlative rights because under the very definition of correlative rights, it is the opportunity of an operator to recover his fair share of the oil in the pool. We respectfully submit that the application of Shiprock Corporation should be granted.

MR. NUTTER: Thank you. Mr. Cooley, do you have a brief rebuttal?

MR. COOLEY: Only to this extent, that the well spacing as well as the establishment of the proration, is an obligation to this Commission. It is pointed out in 65-3-11, New Mexico Statutes Annotated, sub-paragraph 10, "That one of the duties being to space the wells." As the Examiner well knows, the Commission has accomplished spacing of the wells historically by required minimum distances between wells which exists under the present rules even though they are lower than the statewide minimum distances, there is still a minimum distance which, within any given quarter section, proration unit, still limits the number of wells that can be drilled on that 40 acre tract. Now, if this application is granted, the Commission will in effect, completely abandon its well spacing obligation and turn these two operators loose in an unbridled drilling race which, back as early as the enactment of the New Mexico Conservation Code of 1935, was recognized as an extremely wasteful practice. Accordingly, I feel that this application must be denied on the basis that this Commission has an obligation to limit the number of wells that can be drilled on a proration unit to some number, even if it be one acre spacing or one-half acre spacing, there must be a limit some place and if this application is granted, what we are receiving here is to remove any limitation

whatsoever on the number of wells that can be drilled. On the question of premature abandonment, this deals again primarily with the operating costs and if the applicant's operating costs are inordinately high, in view of the type of pool that is here involved, they are obviously going to have a higher per well abandonment rate per day. This doesn't mean that another operator could not use the same producing techniques as Universal does and continue to economically operate these wells.

MR. NUTTER: Thank you. Does anyone else have anything they wish to offer in Case 3614?

MR. MORRIS: Mr. Examiner, just as a point of order, I don't think we ever actually offered in evidence our exhibit, number 3 being the production data and I offer that, at this time.

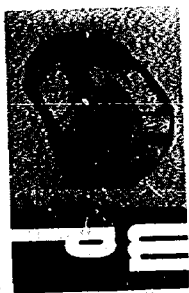
MR. NUTTER: Applicant's Exhibit Number 3 is admitted into evidence. We will take the case under advisement.

(Whereupon, Applicant's Exhibit Number 3 was offered and admitted into evidence.)

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I N D E X

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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS

I, JOE B. JAMESON, 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 14th day of June, 1967.

Joe B. Jameson
Notary Public

My Commission Expires:

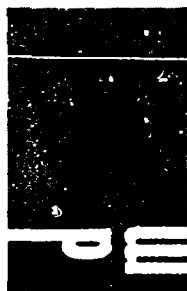
June 25, 1971.

I do hereby certify that the foregoing is
a true and correct record of the proceedings in
the hearing of Case No. 3614
held on 7/12, 1967.
Joe B. Jameson
Notary Public, Organizer
New Mexico Oil Conservation Commission

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 13, 1967

REGULAR HEARING

IN THE MATTER OF:)
)

Application of Shiprock Corporation)
for an amendment to Order No. R-1438,)
San Juan County, New Mexico.)
)

Case: De Novo
3614

BEFORE: David F. Cargo, Governor
Guyton B. Hays, Land Commissioner
A. L. "Pete" Porter, Secretary-Director

TRANSCRIPT OF HEARING

NEW MEXICO OIL CONSERVATION COMMISSION

REGULAR HEARING

SANTA FE, NEW MEXICOREGISTERHEARING DATE SEPTEMBER 13, 1967 TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:
<i>Mr. Smith</i>	<i>Signal Oil & Gas</i>	<i>Midland</i>
<i>Dick Booker</i>	<i>Service Oil</i>	
<i>W. H. Harnery</i>	<i>El Paso Natural Gas</i>	<i>El Paso Tex</i>
<i>D. C. Miller</i>	<i>El Paso Natural Gas</i>	<i>El Paso</i>
<i>E. J. Henry Jr.</i>	<i>Atlantic Richfield Co.</i>	<i>Dallas</i>
<i>J. E. Woolley</i>	<i>Atlantic Richfield Co.</i>	<i>Dallas</i>
<i>W. A. Jett</i>		<i>Midland</i>
<i>Walter Tamm</i>	<i>Tammar Oil</i>	<i>Tulsa</i>
<i>Mike Williams</i>	<i>Gulf Oil Corp.</i>	<i>Midland, Tex</i>
<i>N. A. Harmon</i>	<i>Pan Am. Ref.</i>	<i>Denver, Colo.</i>
<i>W. R. Cukier</i>	<i>Permian Corp.</i>	<i>Farmington, N.M.</i>
<i>W. M. Hargland</i>	<i>Rock Island Ref. & Ref.</i>	<i>Archito, Tex</i>
<i>J. M. Blendenburg</i>	<i>Mobil Oil Corp.</i>	<i>Midland, Texas</i>
<i>J. J. Savage</i>	<i>Texas Inc.</i>	<i>Midland, Texas</i>
<i>J. A. Feagan</i>	<i>Tammar</i>	
<i>L. R. Wall, Jr.</i>	<i>Mobil Oil Corp.</i>	<i>Dallas, Texas</i>

MR. PORTER: The Hearing will come to order, please. The Commission will take up Case 3614 first, this morning.

MR. HATCH: Case 3614, De Novo application of Shiprock Corporation for an amendment to T-1438, San Juan County, New Mexico.

If the Commission please. I received a telegram from the person requesting that this case be heard, De Novo, with the request that the De Novo hearing be dismissed.

MR. PORTER: If there are no objections to the motion for dismissal, Case 3614 will be dismissed.

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 15th day of September, 1967.

Ada Dearnley
Notary Public

My Commission Expires:
June 19, 1971

496084

6/30/67

Production - Shiprock Gallup Field

<u>Year</u>	<u>Universal</u>	<u>Royal</u>
1959	2447 (5mo)	0
1960	6971	0
1961	8723	3728 (9mo)
1962	8057	6868
1963	6214	4603
1964	4446	5521
1965	3701	5415
1966	3984	3189
Total	44,543	29,324
	73,867	

Univ Total Production	44,543
" Prod 1959-1960	9418
" Prod 1961-1966	35,125
Royal Prod 1961-1966	29,325
	5,800

As taken from the records published
by New Mexico Oil & Gas Engineering
Committee, Hobbs Mex.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Applicant EXHIBIT NO. 3
CASE NO. 3614

NEShullander
6/30/67

SHIP ROCK - GALLUP FIELD

Month	1959		1960		1961		1962	
	UNIV	ROYAL	UNIV	ROYAL	UNIV	ROYAL	UNIV	ROYAL
Jan			255		790		337	689
Feb			521		900		448	773
Mar			353		895		894	903
Apr			60		1075	431	960	656
May			60		890	633	883	640
Jun			379		768	645	879	628
Jul			720		769	433	769	264
Aug	250		720		550	231	700	595
Sep	424		992		852	0	441	538
Oct	525		1210		738	0	555	256
Nov	521		1216		0	689	782	220
Dec	523		785		496	666	509	688
Total	2447	0	6971	0	8723	3728	8057	6868
Month	1963		1964		1965		1966	
	UNIV	ROYAL	UNIV	ROYAL	UNIV	ROYAL	UNIV	ROYAL
Jan	450	483	450	240	337	433	275	112
Feb	560	399	563	196	112	392	226	229
Mar	668	516	449	284	337	401	485	121
Apr	667	398	750	287	558	259	334	203
May	552	545	542	311	556	502	465	272
Jun	770	321	364	422	50	1170	539	321
Jul	439	412	330	639	440	348	386	386
Aug	552	310	331	666	331	302	300	415
Sep	331	365	332	597	420	609	250	269
Oct	442	281	335	760	223	379	334	432
Nov	558	378	0	690	112	562	170	278
Dec	225	195	0	429	225	58	220	151
Total	6214	4603	4446	5521	3701	5415	3984	3189

Production - Sales - as taken from Record
 Published by New Mexico Oil & Gas
 Engineering Committee - Hobbs, N.M.
 HES. HANSON 4/30/67