

CASE 2691: Application of EL PASO
NATURAL for creation of new gas
pool and special rules.

2691

Index, Transcript,
Exhibits, Etc.

GOVERNOR
JACK M. CAMPBELL
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

May 19, 1965

Mr. Sim Christy
Hinkle, Bondurant, & Christy
Attorneys at Law
Post Office Box 10
Roswell, New Mexico

Re: Case No. 2691
Order No. R-2373-B
Applicant:
EL PASO

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

OTHER Mr. Bob Johnson Mr. Booker Kelly
Mr. Henry E. Sweeney

Case 2691

Heard. 5-12-65

Rec. 5-12-65.

1. Grant. New Mex. So. oil Corp request
for permanent rules for the Lusk
Monow Gas. Pool.

2. applicant showed the pool is
naturally all developed - Gas will
be used to reproduce steam
zone. R. 2691

Thurs 5/12/65

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. 2691
Order No. R-2373-B

APPLICATION OF EL PASO NATURAL GAS
COMPANY FOR THE CREATION OF A NEW
GAS POOL AND ESTABLISHMENT OF SPECIAL
RULES AND REGULATIONS, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 12, 1965, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 19th day of May, 1965, 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-2373, dated November 21, 1962, temporary Special Rules and Regulations were promulgated for the Lusk-Morrow Gas Pool, Lea County, New Mexico.

(3) That by Order No. R-2373-A, dated May 13, 1964, said temporary Special Rules and Regulations were continued in full force and effect for an additional one-year period.

(4) That pursuant to the provisions of Order No. R-2373-A, this case was reopened to allow the operators in the subject pool to appear and show cause why the Lusk-Morrow Gas Pool should not be developed on 160-acre proration units.

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CASE No. 2691

Order No. R-2373-B

(5) That the evidence establishes that one well in the Lusk-Morrow Gas Pool can efficiently and economically drain and develop 640 acres.

(6) That the Special Rules and Regulations promulgated by Orders Nos. R-2373 and R-2373-A have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.

(7) That to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Orders Nos. R-2373 and R-2373-A should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Lusk-Morrow Gas Pool promulgated by Orders Nos. R-2373 and R-2373-A are hereby continued in full force and effect until further order of the Commission.

(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

Jack M. Campbell
JACK M. CAMPBELL, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

CSR/

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. 2691
Order No. R-2373-A

APPLICATION OF EL PASO NATURAL GAS
COMPANY FOR THE CREATION OF A NEW
GAS POOL AND ESTABLISHMENT OF SPECIAL
RULES AND REGULATIONS, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 7, 1964, at Santa Fe, New Mexico, before Examiner Daniel S. Mutter.

NOW, on this 13th day of May, 1964, 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-2373, dated November 21, 1962, temporary Special Rules and Regulations were promulgated for the Lusk-Morrow Gas Pool.

(3) That pursuant to the provisions of Order No. R-2373, this case was reopened to allow the operators in the subject pool to appear and show cause why the Lusk-Morrow Gas Pool should not be developed on 160-acre proration units.

(4) That the temporary Special Rules and Regulations for the Lusk-Morrow Gas Pool, promulgated by Order No. R-2373, should be continued in effect for an additional one-year period in order

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CASE No. 2691
Order No. R-2373-A

to allow the operators in the subject pool sufficient time to gather additional information concerning the reservoir characteristics of the pool.

(5) That this case should be reopened at an examiner hearing in May, 1965, at which time the applicant and all interested parties should appear and show cause why the Lusk-Morrow Gas Pool should not be developed on 160-acre proration units.

IT IS THEREFORE ORDERED:

(1) That the temporary Special Rules and Regulations for the Lusk-Morrow Gas Pool promulgated by Order No. R-2373 shall be continued in full force and effect for an additional one-year period.

(2) That this case shall be reopened at an examiner hearing in May, 1965, at which time the applicant and all interested parties may appear and show cause why the Lusk-Morrow Gas Pool should not be developed on 160-acre proration units.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


Jack M. Campbell
JACK M. CAMPBELL, Chairman

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

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

esr/

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. 2691
Order No. R-2373

APPLICATION OF EL PASO NATURAL GAS
COMPANY FOR THE CREATION OF A NEW
GAS POOL AND ESTABLISHMENT OF SPECIAL
RULES AND REGULATIONS, LEA 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, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 21st day of November, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

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

(2) That a new gas pool for Morrow production should be created and designated the Lusk-Morrow Gas Pool.

(3) That since March, 1961, the date of the first completion in the Morrow formation in the proposed pool, several wells have subsequently been completed in the Morrow formation and are capable of producing gas therefrom.

(4) That El Paso Natural Gas Company seeks the promulgation of temporary special rules and regulations for the Lusk-Morrow Gas Pool to provide for 640-acre gas proration units and the allocation of allowables to non-marginal wells in the proportion that each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the subject pool.

(5) That the evidence presented concerning the economic loss that will occur as a result of drilling of unnecessary wells

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CASE No. 2691
Order No. R-2373

justifies the establishment of 640-acre gas proration units in the subject pool for a temporary period of 18 months.

(6) That during the 18-month period in which this order will be in effect, all operators in the subject pool should gather all available information relative to drainage and recoverable reserves in said pool.

(7) That this case should be reopened at an examiner hearing in May, 1964, at which time the operators in the subject pool should be prepared to appear and show cause why the Lusk-Morrow Gas Pool should not be developed on 160-acre gas proration units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production is hereby created and designated as the Lusk-Morrow Gas Pool consisting of the following-described area:

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM

Section 18: All
Section 19: All
Section 20: All
Section 29: All

(2) That Special Rules and Regulations for the Lusk-Morrow Gas Pool are hereby promulgated as follows:

**SPECIAL RULES AND REGULATIONS
FOR THE
LUSK-MORROW GAS POOL**

RULE 1. Each well completed or recompleted in the Lusk-Morrow Gas Pool or in the Morrow formation within one mile of the Lusk-Morrow Gas Pool, and not nearer to or within the limits of another designated Morrow pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Lusk-Morrow Gas Pool shall be located on a standard proration unit consisting of approximately 640 contiguous surface acres substantially in the form of a square which is a legal section of the United States Public Lands Survey. For purposes of these rules, a unit containing 632 through 648 acres shall be considered a standard unit.

RULE 3. Each well completed or recompleted in said pool shall be located not closer than 330 feet to the outer boundary

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CASE No. 2691
Order No. R-2373

of the SW/4 NE/4, NW/4 SE/4, NE/4 SW/4, or SE/4 NW/4 of the section. Any well drilling to or completed in the Strawn or Morrow formations on the date of this order is hereby granted an exception to the well location requirements of this rule.

RULE 4. For good cause shown, the Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising less than 640 acres. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director of the Commission may approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The acreage factor assigned to any such non-standard unit shall bear the same ratio to a standard acreage factor in the Lusk-Morrow Gas Pool as the acreage in such non-standard unit bears to 640 acres.

RULE 5. In the event of subsequent prorationing of the Lusk-Morrow Gas Pool, the allowable assigned to a non-marginal well shall be in the same ratio that its acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

RULE 6. The vertical limits of the Lusk-Morrow Gas Pool shall be the Morrow formation.

(3) That this case shall be reopened at an examiner hearing in May, 1964, at which time the operators in the subject pool may appear and show cause why the Lusk-Morrow Gas Pool should not be developed on 160-acre gas proration units.

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

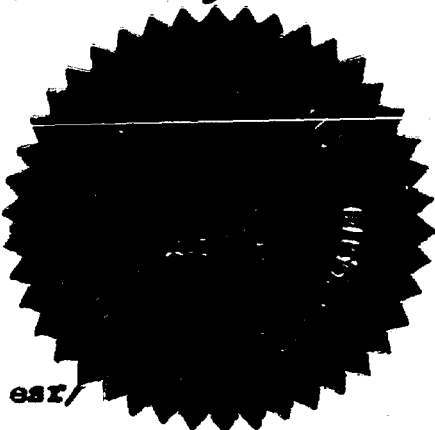
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

E. J. McChem
EDWIN L. MECHEM, Chairman

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

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



esr/

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WESTERN UNION

TELEGRAM

(18).

1201 (4-60)

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL=Day Letter

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LA189 KB106

1965 MAY 11 AM 10 30

K BRA043 DL PD=WUX BARTLESVILLE OKLA 11 1009A CST=
A L PORTER JR, NEW MEXICO OIL CONSERVATION COMMISSION=
STATE LAND OFFICE BLDG SANTA FE NMEX=

RE HEARING MAY 12, 1965 REOPENED CASE 2691 LUSK MORROW
GAS POOL LEA COUNTY NEW MEXICO. AS AN INTEREST OWNER IN
THIS FIELD WE SUPPORT RECOMMENDATIONS TO BE OFFERED BY
SOUTHERN NEW MEXICO OIL CORP. AND URGE CONTINUATION OF
PRESENT TEMPORARY RULES FOR THIS FIELD INCLUDING 640
ACRE SPACING=

PHILLIPS PETROLEUM CO SHOFNER SMITH=

1965 MAY 11 AM 10

12 1965 2691 640=1

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

SYMBOLS

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LT = International Letter Telegram

1201 (4-60)

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LA046 KB116

Case 2691

K 0CBT14 PD=WUX OKLAHOMA CITY OKLA 7 7046A CST=

E A UTZ, NEW MEXICO OIL CONSERVATION COMMISSION=

STATE LAND OFFICE BLDG SANTA FE NMEX=

KERR MCGEE AS WORKING INTEREST OWNER IN LUSK MORROW GAS

POOL RECOMMENDS THAT THE COMMISSION GRANT THE EXTENSION

OF PRESENT RULES SOUGHT BY SOUTHERN NEW MEXICO OIL

CORPORATION FOR THE EXISTING 640-ACRE UNITS=

JOHN I FISHER / KERR MCGEE OIL IND=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

(36).

(4-60)

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LA272 DB280

MAY 11 PM 3 36

D FWB346 PD=FAX FORT WORTH TEX 11 419P CST=

NEW MEXICO OIL CONSERVATION COMM=

SANTAFE NMEX=

PAN AMERICAN PETROLEUM CORPORATION, AS AN OPERATOR IN THE LUSK MORROW GAS POOL, RESPECTFULLY REQUESTS THAT THE COMMISSION CONTINUE THE CURRENT TEMPORARY POOL RULES FOR THE LUSK MORROW GAS POOL FOR A PERIOD OF AT LEAST ONE YEAR. THIS MATTER WILL BE CONSIDERED AS CASE 2691, REOPENED, TO BE HELD AT THE MAY 12, 1965 EXAMINER HEARING. IT IS OUR UNDERSTANDING THAT SOUTHERN NEW MEXICO OIL CORPORATION WILL APPEAR AND REQUEST THE ABOVE=

W V GRISHAM PAN AMERICAN PET CORP=

cerning its service.



309 CARPER BUILDING
ARTESIA, NEW MEXICO - 88210

6 May 1965

S. P. YATES
PRESIDENT
HARVEY E. YATES
VICE PRESIDENT
MARTIN YATES, III
VICE PRESIDENT
JOHN A. YATES
SECRETARY
HUGH W. PARRY
TREASURER

RE: Lusk Morrow Field
Spacing Hearing

Southern New Mexico Oil Corporation
P. O. Box 1659
Midland, Texas

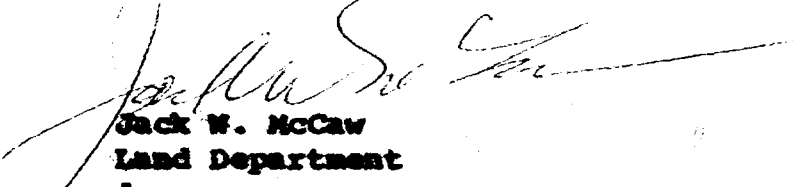
Attention: Mr. M. B. Wilson

Gentlemen:

Reference is made to the captioned and to your request for a continuation of the present temporary rules which call for 640-acre proration units.

Yates Petroleum Corporation, as a lease owner in the Lusk Morrow Field, concur with your opinion that the Lusk Morrow Gas Pool temporary rules which call for 640-acre proration units should be continued.

Yours very truly,


Jack W. McCaw
Land Department
dp

cc: New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Gulf Oil Corporation

ROSWELL PRODUCTION DISTRICT

W. B. Hopkins
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
F. O. Mortlock
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

May 10, 1965

P. O. Drawer 1938
Roswell, New Mexico 88201

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Re: Case 2691 (Reopened)
~~Examiner~~ Hearing May 12, 1965

Gentlemen:

Gulf Oil Corporation has a working interest ownership in certain wells in the Lusk Morrow Gas Pool and we believe this pool should continue to be developed on 640-acre spacing.

Please accept this letter as our recommendation that the existing temporary rules providing for 640-acre proration units be continued for this pool.

Respectfully submitted,

GULF OIL CORPORATION

M. I. Taylor
M. I. Taylor

JHH:ers

cc: Southern New Mexico Oil Corporation
Post Office Box 1659
Midland, Texas 79704
Attention: Mr. M. B. Wilson



DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 12, 1965

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

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

CASE 2691 (Reopened):

In the matter of Case No. 2691 being reopened pursuant to the provisions of Order No. R-2373-A, which order continued 640-acre gas proration units for the Lusk-Morrow Gas Pool, Lea County, New Mexico, for one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre proration units.

CASE 3016 (Reopened):

In the matter of Case No. 3016 being reopened pursuant to the provisions of Order No. R-2697, which order established 80-acre spacing units for the Vacuum-Upper Pennsylvanian Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 3245: Application of Worldwide Petroleum Corporation for creation of an oil pool and for an amendment to Order No. R-2095, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the Seven Lakes Oil Pool for production of oil from the Menefee formation in Township 18 North, Range 10 West, McKinley County, New Mexico. Applicant further seeks an order amending Order No. R-2095, which authorized a waterflood project in the Seven Lakes area, McKinley County, New Mexico. Applicant seeks the designation of the SW/4 of Section 17, SE/4 of Section 18, N/2 of Section 19, and the NW/4 of Section 20, all in Township 18 North, Range 10 West, to be the waterflood project area. Applicant further seeks authority to inject water in the Seven Lakes Pool through 8 wells drilled at various orthodox and unorthodox locations within said project area, and to drill for water injection purposes and as producers numerous other wells in said project area. Development of the project area would be on a standard 10-acre 5-spot water injection pattern subject to amendment as need may arise upon administrative approval by the Secretary-Director of the Commission.

May 12, 1965 Examiner Hearing

- CASE 3246:** Application of Paul DeCleva for an amendment to Order No. R-2691, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an amendment to Order No. R-2691, which order prescribes pool rules for the Mesa Queen Pool, Lea County, New Mexico. Applicant, among other things, requests that said rules be amended to include the definition of gas wells and oil wells in said pool, the assignment of 40 acres to oil wells, and the assignment of 160 acres to gas wells.
- CASE 3247:** Application of Paul DeCleva for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit for his Tidewater State Well No. 1 located in Unit D of Section 17, Township 16 South, Range 32 East, Mesa Queen Pool, Lea County, New Mexico, said unit to comprise the W/2 NW/4, NE/4 NW/4, and NW/4 NE/4 of said Section 17.
- CASE 3248:** Application of Texaco Inc. for commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Drinkard production from Tract 1 of its W. L. Nix Lease comprising the W/2 SE/4 and E/2 SW/4 of Section 17, and from Tract 2 of said lease comprising the W/2 NE/4 and E/2 NW/4 of Section 20, all in Township 22 South, Range 38 East, Lea County, New Mexico, allocating the production to each tract on the basis of periodic well tests. Applicant further seeks administrative procedure to extend the above-described commingled method to other zones that may prove productive from said lease.

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



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

P. O. BOX 871
SANTA FE

November 21, 1962

Re: Case No. 2691
Order No. R-2373

Mr. Richard Morris
Seth, Montgomery, Federici & Andrews
Attorneys at Law
Box 828
Santa Fe, New Mexico

Applicant:

El Paso Natural Gas Company

DOCKET MAILED

Dear Sir:

Date 4-28-65

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

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Astec OCC

OTHER Mr. Garrett Whitworth

DOCKET MAILED

Date 4/27/64

BEFORE THE OIL CONSERVAION COMMISSION OF NEW MEXICO

APPLICATION of EL PASO NATURAL GAS
COMPANY for the creation of a new
gas pool and for the establishment
of special rules and regulations,
Lee County, New Mexico.

NO. 2691

ENTRY OF APPEARANCE

SETH, MONTGOMERY, FEDERICI & ANDREWS, 301 Don Gaspar
Avenue, Santa Fe, New Mexico hereby enter their appearance in
the above entitled case as attorneys for EL PASO NATURAL GAS
COMPANY appearing with Messers Ben Howell and Garrett Whitworth
of the Texas Bar, who also are appearing for El Paso Natural Gas
Company.

SETH, MONTGOMERY, FEDERICI & ANDREWS

DOCKET MAILED

Date

4-28-65

By

Richard S. Morris
Attorneys for El Paso Natural
Gas Company

BEFORE THE
OIL CONSERVATION COMMISSION OF THE
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF EL PASO NATURAL GAS COMPANY
TO ESTABLISH A GAS POOL FOR PRO-
DUCTION FROM THE MORROW FORMATION
UNDERLYING SECTIONS 18, 19, 20
AND 29, TOWNSHIP 19 SOUTH, RANGE
32 EAST, LEA COUNTY, NEW MEXICO
AND TO PROVIDE FOR STANDARD GAS
PRORATION UNITS IN SAID GAS POOL
OF 640 ACRES EACH

CASE NO. 2691

ORDER NO. _____

A P P L I C A T I O N

*Lusk - Morrow
Gas Pool.*

TO THE HONORABLE COMMISSION:

COMES NOW El Paso Natural Gas Company, hereinafter called
"Applicant," a Delaware corporation authorized to do business in
the State of New Mexico, and alleges and states:

I.

Applicant is one of the working interest owners and the unit
operator of Lusk Deep Unit Wells Numbers 2 and 3 and one of the working
interest owners and the operator of Southern California Number 1 Well
located in Sections 18, 20, and 29, respectively, all in Township 19
South, Range 32 East, Lea County, New Mexico. These wells are dually
completed in the Strawn and Morrow formations. They produce oil from
the Strawn formation and are capable of producing gas from the Morrow
formation.

II.

The Morrow Formation underlying Sections 18, 19, 20 and 29,
Township 19 South, Range 32 East, Lea County, New Mexico, should be
established by this Commission as a separate gas pool.

III.

Applicant requests that a standard proration unit in said
pool consist of 640 acres.

IV.

The allocation of allowables to non-marginal wells entitled to an allowable in said pool should be in the proportion that each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

V.

WHEREFORE, Applicant requests that this matter be set for hearing before an examiner as soon as possible and that this Commission issue an order designating a separate gas pool as above requested providing for 640 acre standard gas proration units therein with allocation of allowables based on the proportion described herein and for general reliefs.

DOCKET MAILED

Date

4-28-65

Garrett C. Whitworth
Garrett C. Whitworth
Attorney for Applicant

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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

1201 (4-60)

SYMBOLS

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EA079 SSG103

L RWA042 PB-ROSWELL NMEX 8 1107A MST

1962 NOV 8 AM 11 33

NEW MEXICO OIL CONSERVATION COMMISSION

ATTN A L PORTER JR SECRETARY DIRECTOR SANTA FE NMEX

RE CASE NO. 2691 SHELL OIL COMPANY SUPPORTS THE
APPLICATION OF EL PASO NATURAL GAS COMPANY FOR CREATION
OF A NEW GAS POOL AND ESTABLISHMENT OF SPECIAL RULES
AND REGULATIONS FOR THE MORROW FORMATION UNDERLYING
SECTION 18, 19, 20 AND 29, TOWNSHIP 19 SOUTH RANGE 32
EAST LEA COUNTY NEW MEXICO

SHELL OIL CO B B STOKES FOR R L RANKIN DIVISION
PRODUCTION MANAGER

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE
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proper symbol.

WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

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1201 (4-60)

LA076 CTB144 KB142
K OCB246 PD=WUX OKLAHOMA CITY OKLA 6 127P CST=
OIL CONSERVATION COMMISSION=
STATE LAND OFFICE BLDG (PLEASE VERIFY DELIVERY)

1962 NOV 6 PM 1 15

SANTA FE NMEX=
ATTENTION: MR. DANIEL S. NUTTER, EXAMINER=
RE: CASE NO. 2691 HEARING DATE= THURSDAY NOVEMBER 8, 1962
EL PASO NATURAL GAS COMPANY HAS APPLIED FOR THE
ESTABLISHMENT OF 640-ACRE PRORATION UNITS AND SPECIAL
POOL RULES FOR THE MORROW FORMATION UNDERLYING SECTIONS
18, 19, 20, AND 29, TOWNSHIP 19 SOUTH, RANGE 32 EAST,
LEA COUNTY, NEW MEXICO. KERR MCGEE OIL INDUSTRIES, INC.,

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

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

WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

1201 (4-60)

SYMBOLS

DL = Day Letter

NL = Night Letter

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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

AS A WORKING INTEREST OWNER WITHIN THIS AREA, SUPPORTS
EL PASO NATURAL GAS COMPANY'S APPLICATION AND
RESPECTFULLY RECOMMENDS TO THE COMMISSION THAT THOSE
SECTIONS BE SPACED AND RULES ESTABLISHED AS REQUESTED
BY EL PASO NATURAL GAS COMPANY=

B G TAYLOR KERR MCGEE OIL IND INC==

2691 8 1962 640 18 19 20 29 19 32

1962 NOV 5 PM

MAIN OFFICE

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

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WESTERN UNION TELEGRAM

W. F. MARSHALL, President

1201 (4-60)

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LA147 SSM403

1964 MAY 6 PM 4 54

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A L PORTER JR=

NEW MEXICO OIL CONSERVATION COMM SANTA FE NMEX=

IN REGARDS TO CASE 2691 REOPENED SOCONY MOBILE AS OWNER
OF A WORKING INTEREST REQUEST THAT TEMPORARY 640 ACRE
SPACING POOL RULES NOW IN EFFECT FOR THE LUSK MORROW
GAS POOL BE CONTINUED IN ORDER TO OBTAIN ADDITIONAL
PRODUCTION HISTORY=

GLEN W BARB PRODUCING SUPERINTENDENT=

=2691 640=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

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WESTERN UNION

TELEGRAM

W. F. MARSHALL, President

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LA100 KB222

K BRA094 DL PD 3 EXTRA=WUX BARTLESVILLE OKLA MAY 6 PM 1 35
A L PORTER, SECRETARY AND DIRECTOR=

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE NMEX=

RE HEARING MAY 7, 1964, CASE 2691 LUSK MORROW GAS
POOL, LEA COUNTY, NEW MEXICO. WE CONCUR IN TESTIMONY
TO BE PRESENTED BY SOUTHERN NEW MEXICO OIL CORPORATION
IN SUPPORT OF REQUEST FOR CONTINUATION OF TEMPORARY
640 ACRE GAS PRORATION UNITS FOR THIS FIELD=

PHILLIPS PETROLEUM CO EARL GRIFFIN MANAGER
PRODUCTION DIVISION=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

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WESTERN UNION

TELEGRAM

W. F. MARSHALL, President

(23)

1201 (4-00)

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E A UTZ

Case 2691

NEW MEXICO OIL CONSERVATION COMMISSION STATE

LAND OFFICE BLDG SANTA FE NMEX

KERR-MCGEE AS WORKING INTEREST OWNER IN LUSK MORROW GAS
POOL RECOMMENDS THAT THE COMMISSION GRANT THE EXTENSION
OF PRESENT RULES SOUGHT BY SOUTHERN NEW MEXICO OIL
CORPORATION FOR THE EXISTING 640-ACRE UNITS

JOHN I FISHER KERR-MCGEE OIL INDUSTRIES INC

640

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

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WESTERN UNION

TELEGRAM

W. P. MARSHALL, President

SYMBOLS
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Letter Telegram

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=NMEX OIL CONSERVATION COMMISSION=

=SANTA FE NMEX=

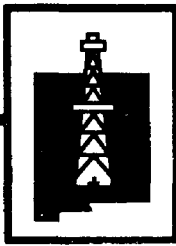
ATTN A L PORTER JR,

IN RE CASE NO 2691 DOCKET OF MAY 7 1964 SHELL OIL
CO SUPPORTS THE REQUEST OF SOUTHERN NMEX OIL CORP THAT THE
PRESENT RULES OF ORDER NO R-2373 LUSK MORROW GAS POOL
BE EXTENDED=

SHELL OIL CO T H DWYER DIV PRODUCTION MGR

P O BOX 1858 ROSWELL NEW MEXICO=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE



SOUTHERN NEW MEXICO OIL CORPORATION

P. O. BOX 1224 • FORT WORTH, TEXAS

Reply to: P. O. Box 1659, Midland, Texas

May 14, 1964

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

Attn: Mr. A. L. Porter, Jr.

Re: Case No. 2691 (Re-opened)

Gentlemen:

Attached hereto is a letter from Tenneco Oil Company and copy of telegram from Yates Petroleum Company, supporting the position of Southern New Mexico Oil Corporation in the above captioned case.

Yours very truly,

SOUTHERN NEW MEXICO OIL CORPORATION

M. B. Wilson
Vice President

MBW:tr
Encl. (2)



1964 MAY 11
LAW OFFICE OCC

TENNECO OIL COMPANY • P. O. BOX 1031 • 1800 WILCO BUILDING • MIDLAND, TEXAS 79701 20

May 11, 1964

Southern New Mexico Oil Corporation
P. O. Box 1659
Midland, Texas

Attention: M. B. Wilson

Re: Case No. 2691 (Re-opened)
Order No. R-2371 NMOCC
Lusk Morrow Gas Pool
Lea County, New Mexico

Gentlemen:

Tenneco Oil Company is now an operator in the Lusk Strawn Pool but has not yet established production in the Lusk Morrow Gas Pool. Tenneco is actively developing their properties in this area and is in agreement with the request of Southern New Mexico Oil Corporation for the extension of the temporary operating rules of the Lusk Morrow Gas Pool which requires 640 acre gas pro-ratio units.

Very truly yours,

TENNECO OIL COMPANY


A. W. Lang
District Production Superintendent

CWN:mmm

CLASS OF SERVICE

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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

SYMBOLS

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DA147 LC163

1964 MAY 30 AM

26

(31)

L ARA015 PD=ARTESIA NMEX 5 330P MST=

1964 MAY 5 PM-4 34

SOUTHERN NEW MEXICO OIL CORP= 509 N Loma

MIDLAND TEX=

ATTN MR M B WILSON=

SORRY WE CANNOT ATTEND HEARING, BUT WE HEARTILY ENDORSE

YOUR REQUEST FOR AN EXTENTION OF TIME OF THE TEMPORARY

SPACING OF 640 ACRES FOR THE LUSK MORROW GAS POOL=

YATES PETROLEUM CORP=

640=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 5/8/64

CASE 2691

Hearing Date 9am 5/7/64

Don @ SF

My recommendations for an order in the above numbered cases are as follows:

Enter an order extending the
640 acre spacing provisions
of order no R-2373 for one
year to June 1, 1965. Call
case to reconsider this
matter in May, 1965.

Find that production ^{history} from
the pool is limited and
no permanent decision can
be made as yet as to
proper size of development
pattern

Northrup
Staff Member

El Paso Natural Gas Company

El Paso, Texas

October 9, 1962

Mr. A. L. Porter
Oil Conservation Commission
Of the State of New Mexico
Post Office Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

I have enclosed for filing with the Commission the original and two copies of El Paso Natural Gas Company's application to establish a gas pool for production from the Morrow Formation underlying Sections 18, 19, 20 and 29, Township 19 South, Range 32 East, Lea County, New Mexico and to provide for standard gas proration units in said gas pool of 640 acres each.

We would like to get this case set before an examiner as soon as possible.

Yours very truly,

Garrett C. Whitworth
GARRETT C. WHITWORTH
ATTORNEY

GCW:bls

Enclosures

DOCKET MAILED

Date *10/26/62*

DELHI-TAYLOR OIL CORPORATION
FIDELITY UNION TOWER
DALLAS 1, TEXAS

April 29, 1964

OFFICE OCC
1964 MAY 1 PM 1:21

New Mexico Oil and Gas Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Attention: Mr. Elvis A. Utz

Gentlemen:

Case file
Re Case No. 2691 Review Pool Rules
Lusk-Morrow Gas Pool

Delhi-Taylor Oil Corporation respectfully requests that the provisions of Order No. R-2373 establishing temporary 640 acre gas proration units for the Lusk-Morrow Gas Pool, Lea County be extended for a further period of eighteen months. Gas production from this pool since the promulgation of Order No. R-2373 has not been sufficient to add materially to our knowledge of the performance of this gas reservoir. Until a significant percentage of the gas in place has been produced, with a resulting significant reduction in reservoir pressure, it will not be possible to secure the reservoir performance evidence needed as the basis for a permanent order. The requested extension will allow operators in the pool to attempt to secure a gas market for Lusk-Morrow gas and secure the additional information needed to provide a sound basis for the complete development of this reservoir.

Yours very truly,

R. S. Wansbrough
R. S. Wansbrough, Manager
Production Engineering

RSW:ge

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 11/9/62

CASE Case 2691

Hearing Date 9 am 11/8/62
DSN @ SF

My recommendations for an order in the above numbered cases are as follows:

Enter an order creating the
Lusk - Morrow Gas Pool comprising
the following acreage:

T 19 S R 32 E

Secs 18 thru 20: All
Sec 29: All

Also provide temporary Pool Pools
similar to Lusk Strawn Pools^{1,2,3,4,5} (R-2175-B)
except proration units shall be 640 acres com-
prising a section, well locations
not closer than 330 ft to outer boundary
of the SW/4 NE/4, NW/4 SE/4, NE/4 SW/4, or
SE/4 NW/4 of the section.

Provide that all wells ^{completed in} or drilling to
the Strawn or Morrow formations on the
date of the order are accepted to the above
location requirements.

Provide that in the event of prorationing
in the pool, ^{a non-marginal well} the wells ~~average factor~~
~~for prorationing purposes shall~~

allowance shall
~~be~~ be in the same ratio
that its acreage ^{factor} bears to the
total of the acreage factors for
all non-marginal wells in the
pool.

make rules effective for 18 months
and call another case for
hearing in May, 1964, to permit
all interested parties to appear
and show cause why pool
should not revert to 160-acre
spacing.

Use finding similar to the
one we used in Buffalo
Valley Penn pool a while back
to justify wide spacing
without any reservoir info.

JK

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. 2469
Order No. R-2175-B

APPLICATION OF EL PASO NATURAL GAS
COMPANY FOR THE ESTABLISHMENT OF
SPECIAL RULES AND REGULATIONS FOR
THE LUSK-STRAWN POOL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 14, 1962, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 4th day of April, 1962, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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, El Paso Natural Gas Company, on rehearing, seeks a modification of the Special Rules and Regulations for the Lusk-Strawn Pool as contained in Order No. R-2175 entered in Case No. 2469 on January 30, 1962, to provide for the development of said pool on 160-acre proration units.

(3) That the present testimony of the applicant indicates that one well can efficiently drain 160-acres.

(4) That the present testimony of the applicant relative to the economics of drilling in the subject pool indicates that development on less than 160-acre oil proration units would be uneconomical.

(5) That the Special Rules and Regulations for the Lusk-Strawn Pool as contained in Order No. R-2175 should be modified to provide for 160-acre oil proration units.

-2-

CASE No. 2469

Order No. R-2175-B

IT IS THEREFORE ORDERED:

(1) That Special Rules and Regulations for the Lusk-Strawn Pool, Lea County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE LUSK-STRAWN POOL

RULE 1. Each well completed or recompleted in the Lusk-Strawn Pool or in the Strawn formation within one mile of the Lusk-Strawn Pool, and not nearer to nor within the limits of another designated Strawn pool, shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Lusk-Strawn Pool shall be located on a unit containing 160 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Lands Survey.

RULE 3. Each well completed or recompleted in said pool shall not be drilled closer than 660 feet to any quarter section line nor closer than 330 feet to any quarter-quarter section line. Any well which was drilled to or recompleted in the Lusk-Strawn Pool prior to January 4, 1962, is granted an exception to the well location requirements of this Rule.

RULE 4. For good cause shown, the Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising less than 160 acres. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director of the Commission may approve the application if, after a period of 30 days, no offset operator has entered an objection to the formation of such non-standard unit.

The allowable assigned to any such non-standard unit shall bear the same ratio to a standard allowable in the Lusk-Strawn Pool as the acreage in such non-standard unit bears to 160 acres.

RULE 5. A 160-acre proration unit (158 through 162 acres) in the Lusk-Strawn Pool shall be assigned a 160-acre proportional factor of 8.67 for allowable purposes, and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit in any proportion.

-3-

CASE No. 2469
Order No. R-2175-B

RULE 6. The limiting gas-oil ratio in the Lusk-Strawn Pool shall be 4000 : 1.

PROVIDED HOWEVER, That the provisions of Rules 5 and 6 shall not become effective until such time as all wells presently completed in the subject pool are connected to a casinghead gas gathering system.

(2) That Order No. R-2175 entered in Case No. 2469 on January 30, 1962, is hereby superseded.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

S E A L

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

esr/

TEXACO
INC.

PETROLEUM PRODUCTS

DOMESTIC PRODUCING DEPARTMENT
MIDLAND DIVISION



P. O. BOX 8109
MIDLAND, TEXAS

R. M. BISCHOFF, ASSISTANT DIVISION MANAGER

October 31, 1962

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attn: Mr. A. L. Porter, Jr.

Gentlemen:

Reference is made to Case No. 2691 set for Examiner hearing November 8, 1962. This case is for the purpose of considering the application of El Paso Natural Gas Company for the adoption of special field rules to govern the drilling and production of wells drilled to the Lusk (Morrow-Gas) Pool, Lea County, New Mexico. It is our understanding that El Paso will ask for temporary rules which will be in effect for one year from the date of first production. We further understand that these rules will provide for 640-acre proration units with a well being located no nearer than 660' to a lease line nor nearer than 330' to a quarter-quarter section line. We also understand that the allocation formula will be based upon 100 per cent acreage.

Texaco Inc. at the present time does not have any wells completed in this reservoir; however, we do own considerable undeveloped acreage in the area, and it is believed that this acreage could be productive from this reservoir. It can, therefore, be seen that Texaco as a prospective operator is vitally interested in the establishment of any special rules pertaining to this reservoir. Texaco has reviewed the above proposals set forth by El Paso Natural Gas and finds that we are in agreement with the proposed rules. We, therefore, strongly urge the Commission to adopt the rules as proposed by El Paso Natural Gas Company.

Yours very truly,

R. M. Bischoff

CRB-MM

cc: El Paso Natural Gas Co.
P. O. Box 1492
El Paso, Texas

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 8, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of El Paso Natural Gas Company
for the creation of a new gas pool and
establishment of special rules and regula-
tions, Lea County, New Mexico. Applicant,
in the above-styled cause, seeks the crea-
tion of a new gas pool for the Morrow for-
mation underlying Sections 18, 19, 20, and
29, Township 19 South, Range 32 East, Lea
County, New Mexico. Applicant further seeks
establishment of special pool rules includ-
ing provisions for 640-acre proration units
and the allocation of allowables to non-
marginal wells in the proportion that each
well's acreage factor bears to the total of
the acreage factors for all non-marginal
wells in the pool.

Case 2691

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.

The next case will be 2691.

MR. DURRETT: Application of El Paso Natural Gas Com-
pany for the creation of a new gas pool and establishment of
special rules and regulations, Lea County, New Mexico.

MR. WHITWORTH: Garrett Whitworth and the Santa Fe law
firm of Seth, Montgomery, Federici and Andrews, representing El



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PHONE 243-6691

Paso Natural Gas Company. We have two witnesses, Mr. Jerry Hickson and Mr. Henry Sweeney.

(Witnesses sworn.)

JERALD A. HICKSON

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

DIRECT EXAMINATION

BY MR. WHITWORTH:

Q Mr. Hickson, would you state your full name for the record, by whom and in what capacity you are employed?

A Jerald A. Hickson, proration engineer for El Paso Natural Gas Company.

Q Have you previously testified before this Commission and are your qualifications as an expert witness a matter of record?

A Yes, sir, they are.

Q What does El Paso seek to accomplish by this application, Mr. Hickson?

A Well, we are asking for the creation of a new pool which hereafter will be referred to as the Lusk Morrow field and establishment of special rules and regulations to operate in this field.

Q Do you have an exhibit showing the horizontal limits



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PHONE 243-6691

of the field that you propose?

A Yes, sir.

Q Is that El Paso's Exhibit No. 1?

A Yes, sir, that is El Paso's Exhibit No. 1.

(Whereupon, El Paso's Exhibit No. 1 was marked for identification.)

Q Will you please explain that exhibit to the Examiner?

A This is a plat of the area surrounding the area of the Lusk Deep Unit and surrounding sections. It takes in all wells in this immediate area which are completed to the Morrow formation. On the plat we also have symbols "S" for Strawn, "M" for Morrow and we have three dual completions in the Strawn and Morrow, four dual completions in the Strawn Morrow, correction, and one single in the Morrow and two drilling to the Strawn.

Q What indicates the Lusk Deep Unit on this plat?

A The dark line, the dark brown line indicates the Lusk Deep Unit and the two parallel lines indicate the acreage that we have asked to be set for this Lusk Morrow field.

Q That includes four sections, does it not?

A Yes, sir, Sections 18, 19, 20 and 29 of 19, 32.

Q When were El Paso's wells shown on this plat completed?

A The first completion in the Morrow formation was in March of 1961.

Q Do you have potentials on these wells?



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A Yes, sir. We have potentials on El Paso Natural Gas Company's Lusk Unit No. 2, 3, and Southern California No. 1.

Q What are those potentials?

A The AOF on our Lusk Unit No. 2 was 5,008,800 MCF per day. Southern California Federal No. 1, it was 18,000,250 MCF per day.

Q In your opinion these four sections should be designated as a separate gas pool, is that correct?

A Yes, sir, that's correct.

Q What is your reason for requesting 640-acre spacing for this pool?

A The reason for asking for 640-acre spacing in this pool at this time is in order that this field can be developed on the widest possible spacing in order to efficiently and economically develop the area. We have another exhibit --

Q Which pertains to well costs?

A Yes, sir.

(Whereupon, El Paso's Exhibit No. 2 was marked for identification.)

Q Is that El Paso's Exhibit No. 2?

A Yes, sir.

Q Would you please explain this exhibit?

A This is a cost estimate of a single completion to the Morrow formation in this area. It sets out the drilling costs



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and all additional costs and the total is \$323,670. Now, investing \$323,000 on a Morrow formation, we feel like until we can determine the reserves and the drainage area of the reservoir we should try to get the widest possible spacing in order that we can economically drain this area.

Q This is for a single completion to the Morrow, is it not?

A Yes, sir.

Q How were these costs ascertained?

A This is a submitted bid from a contractor.

Q Would you explain to the Examiner the temporary nature of El Paso's request?

A Yes, sir, we are asking for temporary rules to be in force for one year after the date of first production in the area, at which time we will evaluate the reservoir and determine the proper spacing at that time.

Q Is it your opinion that this type of rule or order that we're asking for would have the effect of preventing the drilling of unnecessary wells?

A Yes, sir, I do. We can develop this field on 640-acre spacing and if it's set on 160 and we develop it on 160 we can't undrill wells, and it could mean the additional costs of around \$900,000 in one section.



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PHONE 243-6691

Q Is there a good likelihood that within a year there will be sufficient production history to determine what the proper spacing should be?

A That is possible. Pan American Petroleum Corporation has completed a well in Section 27 of 19, 32 as a single completion in the Morrow, and Southern Union Gas Company is planning on making a connection to that well within, I would say, the next ten days. I understand the pipe is on the ground, but it's just a matter of connecting it to the well head. It would give us a chance to obtain additional reservoir data in this area.

Q Do you have rules that you would like to recommend to the Commission with respect to this separate gas pool El Paso has proposed?

A Yes, sir. We have four rules. These would be special rules and regulations for the Lusk Morrow Pool.

Q What are they?

A Rule 1. Each well completed or recompleted in the Lusk Morrow Pool or in the Morrow formation within one mile of the Lusk Morrow Pool, and not nearer to nor within the limits of another designated Morrow pool, shall be spaced, drilled, operated and prorated in accordance with the special rules and regulations hereinafter set forth.

Rule 2. Each well completed or recompleted in the Lusk



Morrow Pool shall be located on a unit containing 640 acres, more or less, substantially in the form of a square, which is a section being a legal subdivision of the United States Public Lands Survey.

Rule 3. Each well completed or recompleted in said pool shall not be drilled closer than 660 feet to any quarter section line nor closer than 330 feet to any quarter-quarter section line.

Rule 4. For good cause shown, the Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when the application is for a non-standard unit comprising less than 640 acres. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director of the Commission may approve the application if, after a period of thirty days, no offset operator has entered an objection to the formation of such non-standard unit.

Q With the exception of 640-acre spacing, these rules compare favorably with rules that the Commission has previously adopted with respect to the Lusk Strawn, is that correct?

A Yes, that is correct. The allocation of allowables to non-marginal wells in the proportion that each well's acreage factor bears to the total of the acreage factors for all non-

Inc.

DEARNLEY-MEIER REPORTING SERVICE,

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
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PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

marginal wells in the pool. This is an addition to Rule 4.

Q Do you have anything else you would like to add to your testimony?

A Just one other thing, with the deep drilling and the expensive wells in this area we have to utilize the technical knowledge that all the companies possess and yet in some cases kind of ignore where in the shallow fields we go along with the 160-acre spacing until you reach a depth where we are drilling here where in order to keep up with the industry and make a fair return on our money the widest possible spacing must be obtained, and to me this is the only way that we can develop a field is on a temporary basis until such time as the information on the reservoir itself is obtained and then set a permanent spacing rule at that time.

Q As of this date there is no information or production history with respect to this proposed pool, is there?

A No, sir. There has been no production.

Q A number of companies have concurred with El Paso in this application. Do you know of any company that dissents or opposes El Paso's proposal?

A No, I know of no company that is objectionable to this proposal.

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



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supervision?

A Yes, sir.

MR. WHITWORTH: We ask that these exhibits be admitted.

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

(Whereupon, El Paso's Exhibits 1 and 2 were admitted in evidence.)

MR. WHITWORTH: That's all we have from this witness.

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

Hickson?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Hickson, the Pan American well which will be connected in a few days is in the Morrow?

A Yes, sir, a single completion.

Q It isn't, what was AOF?

A The AOF on the Pan American was 1.4 million.

Q So it's considerably smaller than the other completions in the pool?

A Yes, sir, it is.

Q Including the Pan American well, there have been just four completions in the pool to date, or in this area in the Morrow?



A No, there has been five. The Shell well, it's my understanding, is in the process of a dual completion in the Strawn and Morrow.

Q Their Middleton Federal No. 1?

A Yes, in Section 18.

Q And they have got production in the Morrow?

A They have a well completed in the Morrow, that's correct.

Q That's going to result in two Morrow wells in Section 18, isn't it?

A Yes, sir, it is.

Q But your Rule 4 would provide for an exception to Rule 2 for wells with less than 640?

A That's correct.

Q What is the status of Well No. 4 at this time?

A It's drilling. It's my understanding it's below 9,000 feet.

Q Is it contemplated that El Paso will take it to the Morrow?

A No, it's a single in the Strawn.

Q That will be a single in the Strawn?

A Yes, sir.

Q You stated that this well cost on Exhibit No. 2 was

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based on a contractor's bid. Is the entire well cost based on a contractor's bid or the drilling costs of \$109,000?

A Just the drilling cost. We have our drilling engineers prepare the rest of it.

Q The rest are El Paso figures on the other items on the estimate?

A That's correct.

Q Is El Paso actually in this application seeking prorationing in the pool?

A Well, at the present time there is only one well producing and it would be kind of hard to have prorationing with one well, but the point we tried to make here is that drilling on less than 640 a well would be penalized as to its acreage of 640.

Q Have you contemplated that the pool rules wouldn't be a part of R-1670, which is the general gas pool rules for prorated pools?

A They can be incorporated in 1670.

Q Included in this prorationing feature of Rule No. 5?

A Yes.

Q And you are not contemplating in this hearing offering anything as to the value of the reserves or estimated life of the pool after it's put on production, or anything like that?



A Well, sir, at this time that information is not available. We have no production and we just don't have enough --

Q Have core analyses or anything been made to get an estimate of gas in place?

A Not to my knowledge. We don't have a single core in the Morrow to my knowledge.

Q Have any of the wells produced any gas at all for drilling gas or anything?

A Just this AOF test is all.

MR. NUTTER: Any further questions of Mr. Hickson? He may be excused.

(Witness excused.)

H. N. SWEENEY

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

DIRECT EXAMINATION

BY MR. WHITWORTH:

Q Mr. Sweeney, would you state your full name, by whom and in what capacity you are employed?

A My name is H. N. Sweeney, Roswell, New Mexico. I'm an independent geologist representing in this hearing S. P. Yates and Martin Yates, III.

Q You previously testified before this Commission as an

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expert witness, haven't you?

A I have.

Q Your qualifications have been made a matter of record and have been accepted?

A Yes, sir.

Q What interest does Yates Brothers have in this application and in this proposed area?

A We are presently drilling a well in the Northeast Northeast Quarter of Section 30, which is, as of yesterday morning was at 10,338 feet. We have as yet, that well is projected to the Strawn at a depth of approximately 11,500 feet.

Q Is that well depicted on El Paso's Exhibit No. 1?

A Yes, sir. It's shown as a drilling location in Section 30.

Q Continue, please.

A Our experience in this area in trying to put our well deal together has indicated conclusively to us that lack of a temporary spacing order in the area would effectively retard development. There are several reasons, as we've found, for not producing the Morrow gas in the Lusk Deep Unit, one of which is the possibility of fairly rapid depletion of reservoir energy in the Strawn and that possibly the Morrow gas can best be used for recycling and injection into the Strawn for pressure

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maintenance purposes rather than to sell this gas commercially and commit it for other uses.

In putting our deal together in Section 30, which incidentally, at the time we set out to drill this well in the Northeast Quarter of the Northeast Quarter we found that in that section there are nine separate leases and eight different owners, with 160-acre spacing in the Strawn and no spacing in the Morrow. When we talked about drilling a Morrow test to some of the owners in there without exception and the owners include Delhi-Taylor, Kerr-McGee, Shell, Phillips Petroleum, they felt that the spacing in the Lusk should be on the basis of 640 acres and that it would not be feasible to drill a Morrow test unless we could obtain 640-acre spacing, and actually our well is projected to the Strawn at the present time, we expect that within two to three weeks we will have tested the Strawn and before that time we'll have to make up our minds as to whether that well is taken to the Morrow, and the action or lack of action by the Commission in this hearing will have a great deal of bearing on whether this well is taken to the Morrow or not.

It is not feasible generally, I know we as operators don't feel that we can drill a Morrow test on the 200 acres which we have in the section, with the possibility that spacing might go to 640 acres later on, which we would take all the risk of drilling

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the well in the section and later have a very small interest in the well.

Q In other words, you feel that unless spacing is 640 acres for each well the development of this area will be retarded in the Morrow gas formation?

A Definitely. I would like to make some general remarks about the Morrow formation from my experience with it.

Q All right.

A The Morrow series Pennsylvanian system is the course in this shelf area in Eddy and Lea Counties is predominantly a shale section, but it's characterized by thin sand members which, where productive, consist of an unconsolidated coarse to medium grain subrounded sand with very high porosities and permeabilities, porosities running in the range of 25 to 35%. The permeabilities are also high while we have no evidence, the principal reason for not taking cores in the Morrow in this area is the high pressures in the Strawn above the Morrow. There's a considerable risk in doing extensive coring where you have a high pressure formation open in your well bore, but all of the Morrow wells, the three El Paso Morrow wells were completed, naturally there was no artificial stimulation whatsoever, which indicates to us that there is a very high degree of permeability in the Morrow, and that we think that 640-acre spacing is reasonable on a



temporary basis until it's more definitely proven one or another as to whether the 640 acres could be drained by one well, but we think the evidence now, and we have talked to possibly eight or nine operators with some interest in the area, and without exception they all favor 640-acre spacing.

Q In other words, when the information on drainage is available you won't have the problem of undrilling some wells, or attempting to?

A That's right.

Q El Paso's Exhibit No. 2 which reflects well costs for a single completion to the Morrow, have you had a chance to examine that?

A Yes, sir.

Q Does that truthfully reflect, according to your experience, well costs of a well singly completed to the Morrow formation?

A We have done considerable investigating into well costs and made estimates in this connection on our well, and I think the El Paso estimate is reasonable representation of costs of a Morrow well.

Q Is there anything that you would like to add to your testimony?

A I don't believe so.

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MR. WHITWORTH: That's all we have from this witness.

MR. NUTTER: Does anyone have any questions of Mr. Sweeney? He may be excused.

(Witness excused.)

MR. NUTTER: I would like to ask Mr. Hickson another question or two, please.

JERALD A. HICKSON

recalled as a witness, having been previously duly sworn, testified further as follows:

CROSS EXAMINATION

BY MR. NUTTER:

Q We know that the Pan American well will be connected to Southern Union in a short time. Is the acreage in the Lusk Unit under contract to any gas purchaser?

A No, sir, it is not at this time.

Q So you don't know when it will be connected?

A No. I'm sure if the Yates well goes down that they'll probably try to connect that well, and if so, we may make some arrangements to work out a gas purchase contract.

Q You mean we as El Paso a purchaser or El Paso a producer?

A As El Paso a producer.

Q I see.

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A That's not certain at this time. We'll just have to wait and see what happens in the area.

Q Were any of your wells cored in the Morrow formation in this unit?

A No, sir.

MR. NUTTER: That's all.

MR. WHITWORTH: That's all we have in this case.

MR. NUTTER: Does anyone have anything further they wish to offer in Case 2691?

MR. DURRETT: Yes, sir, I have some statements I would like to read into the record from the Commission files. I have a letter from Texaco, Inc. received by the Commission on November 7. I'll read one paragraph from this letter, the last paragraph which reads as follows: "Texaco, Inc. at the present time does not have any wells completed in this reservoir. However, we do own considerable undeveloped acreage in the area, and it is believed that this acreage could be productive from this reservoir. It can therefore be seen that Texaco, as a prospective operator, is vitally interested in the establishment of any special rules pertaining to this reservoir. Texaco has reviewed the above proposals set forth by El Paso Natural Gas and finds that we are in agreement with the proposed rules. We therefore strongly urge the Commission to adopt the rules as proposed by El Paso Natural



Gas Company. Very truly yours," signed by Mr. R. N. Bischoff,
B-i-s-c-h-o-f-f.

Also have a telegram in the Commission files which I would like to read into the record at this time, received November 8, reading as follows: "Re Case No. 2691, Shell Oil Company supports the application of El Paso Natural Gas Company for creation of a new gas pool and establishment of special rules and regulations for the Morrow formation underlying Sections 18, 19, 20 and 29, Township 19 South, Range 32 East, Lea County, New Mexico. Shell Oil Company, D. D. Stokes."

Also have another telegram received November 6. This telegram reads as follows: "Re Case No. 2691, El Paso Natural Gas Company has applied for the establishment of 640-acre proration units and special pool rules for the Morrow formation underlying Sections 18, 19, 20 and 29, Township 19 South, Range 32 East, Lea County, New Mexico. Kerr-McGee Oil Industries, Inc. as a working interest owner within this area supports El Paso Natural Gas Company's application and respectfully recommends to the Commission that those sections be spaced and rules established as requested by El Paso Natural Gas Company. B. G. Taylor, Kerr-McGee Oil Industries, Inc."

MR. NUTTER: Thank you, Mr. Durrett.

MR. WHITWORTH: I'm reliably informed that I'm authorized

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to make a statement on behalf of Pan American in this case.

MR. NUTTER: Would you make that statement?

MR. WHITWORTH: Pan American wholeheartedly and without reservation concurs with all of El Paso's proposals in this case.

MR. NUTTER: Does anyone else have anything else in this case?

MR. KASTLER: Kastler, appearing on behalf of Gulf. We are one of the working interest owners in the Lusk Deep Unit and also Gulf concurs in this application. We particularly believe that on a temporary basis until more data is received that it would be beneficial and lend to greater, more rapid development to establish 640-acre spacing.

MR. NUTTER: You do this wholeheartedly and without reservation? Mr. Gordon?

MR. GORDON: Joe Gordon, Socony-Mobil, as owner of an interest in this area, supports El Paso's request for 640-acre spacing rules in this reservoir. We do expect that further proof of the productivity of 640 acres in each unit will be required for each producing well if the 640 acres are made permanent.

MR. NUTTER: Anyone else? We will take Case 2691 under advisement.

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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 24th day of November, 1962.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2491, heard by me on 11-8, 1962.

[Signature] Examiner
New Mexico Oil Conservation Commission



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

May 7, 1964

EXAMINER HEARING

IN THE MATTER OF: (Reopened)

Case No. 2691 being reopened pursuant to the provisions of Order No. R-2373, which order established temporary 640-acre gas proration units for the Lusk-Morrow Gas Pool, Lea County, New Mexico, for a period of 18 months. All interested parties may appear and show cause why said pool should not be developed on 160-acre gas proration units.

Case No. 2691

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

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MR. NUTTER: We'll call Case 2691.

MR. DURRETT: In the matter of Case No. 2691 being re-opened pursuant to the provisions of Order No. R-2373, which order established temporary 640-acre gas proration units for the Lusk-Morrow Gas Pool, Lea County, New Mexico, for a period of 18 months.

MR. CHRISTY: Sim Christy, Hinkle, Bondurant and Christy for the applicant, Southern New Mexico Oil Corporation.

(Witness sworn.)

M. B. WILSON

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

DIRECT EXAMINATION

BY MR. CHRISTY:

Q Would you state your name, address, occupation, and by whom you are employed, and in what capacity?

A My name is M. B. Wilson, and I live in Midland, Texas; employed by Southern New Mexico Oil Corporation as Vice President.

Q You are a petroleum engineer, Mr. Wilson?

A Yes, sir.

Q Have you previously testified before this regulatory body as a petroleum engineer and had your qualifications accepted?

A Yes, I have.

Q Are you familiar with the area involved in Case 2691, which is the area around the Lusk Unit in Eddy and Lea Counties, New Mexico, Township 19 South, Ranges 31 and 32 East?

A Yes, I am.

Q And the wells in that area?



A Yes, sir.

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

Q Now, I refer you to what has been marked as Applicant's Exhibit A and ask you if you will please identify it for us?

A Exhibit A is a map of the area of the Lusk field that shows the wells that are presently drilled or drilling in that particular area. That shows Strawn wells as well as Morrow wells. However, there's a color code that shows Morrow wells that were drilled and completed prior to November the 8th, 1962, and wells that were drilled after November 8, 1962.

Q Case 2691 did involve only Morrow wells and was heard on November 8, 1962?

A Yes, sir.

Q Now, would you take up very briefly the new wells that have been drilled since November 8, 1962, tell us their potential, whether or not any cores have been taken, and their production?

A The color code, the yellow designates those wells that were drilled prior to the 11-8-62 hearing, and beginning in Section 27, 19 South, 32 East, the Pan American No. 1 Plains Unit was completed October 19, 1962, for 1.24 million.

Q Excuse me, Mr. Wilson, I am asking for wells that have been drilled since the last hearing.

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A Pardon me.

Q I believe the wells drilled before the last hearing are in the testimony here. Let's bring them up from that date.

A The wells drilled subsequent to November 8, 1962, beginning in Section 8, 19 South, 32 East, is the Pan American Plains Unit No. 2 completed May 31, 1963 for three million cubic feet per day. In Section 30, 19 South, 32 East, the Yates Petroleum Corporation No. 1 Elliott Hall completed July 8th, 1963 for 4.69 million cubic feet per day. Section 19, 19 South, 32 East, the Lusk Deep Unit No. 5 well was completed June the 25th, 1963 for 9.45 million. In Section 25, 19 South, 31 East, the Delhi-Taylor No. 1, a Federal well, was completed July the 6th, 1963 for 1.2 million cubic feet per day.

Q Do you happen to know whether any cores were taken on those wells?

A To my knowledge there were no cores taken in the Morrow formation.

Q Has there been any production from those four wells that you have just eliminated?

A There has only been production from one of those last four wells that I have enumerated.

Q I refer you to what has been marked as Applicant's Exhibit B and ask you what the production is from those wells.



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

A Exhibit B is a tabulation taken from the New Mexico Engineering Committee files showing the Morrow production from all wells in the area, or all wells that have been produced in the area. Of the wells that were completed after November 8, 1962, the one well, the Pan American Plains Unit No. 2 is the only one that has any production.

Q And the production is reflected there on Exhibit B?

A Yes, sir.

Q Those are Pan American's sales?

A Yes, sir.

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

Q We'll not go into detail on it, but I will ask you if you will identify Exhibit C and state just briefly what it is?

A Exhibit C is a short history on each well that has penetrated the Morrow formation in the area of the Lusk Field. That's both producers and dry holes.

MR. CHRISTY: That's the history of all the wells.

Q Now, you say there have been no sales on the other three Morrow wells in and adjacent to the Lusk Unit, is that correct?

A That's correct.



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Q Does Southern New Mexico have a contract to sell that gas?

A Yes, sir, there is a contract, but the gas is not being sold into a pipeline.

Q Has everyone in the Lusk Unit -- I understand it's a fully-participating working interest unit?

A Yes, sir.

Q Have all the working interest owners joined in that contract?

A To my knowledge none of the other working interest owners except Southern New Mexico have executed a contract for their Morrow gas.

Q Now, Southern New Mexico is an operator of the Lusk Unit, is it not?

A That is correct.

Q Do you have any plans for the use of this Morrow gas from the three wells and other Morrow wells that may be drilled in the area?

A Yes. There is a possibility that the Morrow gas may be needed to be injected into the Strawn formation. At this present time there is, or is an organization known as the Lusk Field Engineering Committee that is studying the overall possibilities of pressure maintenance in the Strawn formation. Present data



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indicates that considerable additional oil could be recovered by the injection of gas pressure maintenance full of the Strawn formation. The Morrow formation would be a prime source of gas and to this date the operators in the area, with the exception of Pan American, have retained or have not sold any gas pending a final determination that they would inject gas into the Strawn formation.

Q Do your present plans also encompass forming a separate unit for the Strawn formation repressuring and the sale of Morrow gas to this new unit?

A That is correct. The Strawn would be a separate unit and gas would be purchased from the Morrow formation.

Q At that time the royalties and overrides would be paid, of course?

A Yes.

Q This is all Federal acreage, is it not, involved?

A Yes, sir.

Q Now, do the plans for this new Strawn repressuring unit appear favorable at this time?

A At this time the formation of the unit appears favorable. The physical aspects appear favorable, and the Committees are moving forward rapidly to make a final determination that either there will be a pressure maintenance unit or that there will not be.

Q I believe they are meeting all this week, as a matter



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of fact?

A That's right.

Q If it is undertaken, by what latest date could the Strawn have to be pressured up?

A The Strawn formation is rapidly approaching the bubble point, and this work should have already been done, or injection should already have started, however. It takes time to do these things and we have estimated on a very tight time schedule that this could be accomplished within six months.

Q And then about how many months would you need to test and evaluate the drawdown on the Morrow well that you would take and purchase gas from in order to be able to advise this Commission more definitively as to the drainage of one more well?

A Six months' production should give definitive production data to establish the drainage radius or area.

Q So that, in other words, in approximately twelve months from now, assuming the Strawn repressuring unit is formed and which appears favorable at this time, you should be able to give the Commission rather definitive data with respect to the Morrow production, is that correct?

A Yes, sir.

Q Now, the Morrow formation, as far as you have been able to determine, now, does it all underlie the Strawn formation?



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A Yes, it does.

Q Referring to the transcript in the prior hearing on November 8, 1962, I believe there was testimony there that the costs of wells were about three hundred thousand plus per Morrow well, is that correct?

A Yes, sir.

Q About what does it cost now to drill a Morrow test in this area?

A These costs have been estimated as of today's conditions, and that shows to be approximately \$250,000.

Q This is depicted on your Exhibit D?

A Yes, sir.

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

Q So the costs have gone down a little bit, about fifty thousand?

A Yes, and that's because of more experience of drilling in the area and a modified casing program, and certain adjustments in mud program, but otherwise it's correlative to the costs submitted in the last hearing.

Q Now, the last hearing did take up the cost factors. They also took up the question of a type of sand we encountered in the Morrow and the excellent permeability and porosity. Have you



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read that transcript?

A Yes, I have.

Q Do you concur in the testimony?

A Yes, sir, I do.

Q Have you obtained any concurrences from other operators in the Lusk area?

MR. CHRISTY: By way of explanation, I realize that one or more may have concurred or sent statements. I believe two sent them erroneously to us instead of the Examiner.

Q That's the purpose of the question.

A We do have statements from Tenneco or Yates Petroleum Corporation. They have been submitted to our Midland office. I do not have them in hand.

Q Do you know if they were favorable or unfavorable?

A They were reported favorable to me.

Q Would you supply those to the Commission when you get home?

A Yes.

Q Were Exhibits A, B, C and D prepared by you or under your direct supervision?

A They were.

MR. CHRISTY: At this time we would like to offer into evidence Exhibits A, B, C and D, and we would further like to



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retender the evidence in the original case as a portion of this case, and move that the matter be continued for another one-year period in order to properly evaluate the Morrow and its drainage potentials.

MR. NUTTER: Applicant's Exhibits A through D will be admitted in evidence.

(Whereupon, Applicant's Exhibits A, B, C and D were admitted in evidence.)

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

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Wilson, are these other wells that are depicted on Exhibit A the Strawn wells?

A Yes.

Q Are there any wells presently drilling to the Morrow?

A There are none that I know of that are projected to that depth.

Q You have a couple or three locations shown here, but they're headed for the Strawn?

A Yes, sir. I've heard, and possibly the Texaco people can corroborate that the No. 2 "CR" in Section 32, Township 19 South, Range 32 East is headed for a Devonian.



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Q Evidently the Pan American Plains Unit No. 1 and 2 are both producing and have been producing for some several months, is that correct?

A Yes, sir.

Q Do you know what the outlet for that gas is?

A That is Southern Union, I believe.

Q So it's going into a pipeline then?

A Yes, sir.

Q Will the repressuring project in the Strawn Pool be on a unit basis?

A Mr. Examiner, there's many problems to be worked out there. I have, and many people have envisioned that the Strawn repressuring would be a unit, or on a unitized basis of the whole Strawn reservoir.

Q Do you know whether the gas from those two Pan American wells will be used for repressuring the Strawn or not, or will it continue to be sold to the pipeline?

A That is, of course, a hurdle we have not yet overcome. We would certainly like to retain it if necessary for the Strawn repressuring.

Q When you indicated awhile ago it would take six months to iron this thing out as far as repressuring the Strawn, did you mean six months to come to a negotiated agreement as far as the



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operators are concerned, and then after that put the injection system in, or did you mean six months for the negotiations to be concluded and the injection system to be installed and gas put in the ground?

A I would visualize that this six-months' period, the first six-months' period that we mentioned, that would be required in the negotiations to reach an effective date on the unit if it is to be used at all. And on the effective date, the Morrow being high pressure wells, that the Morrow gas could be used without additional, for the time being, without additional compression facilities. Certainly compression facilities will need to be installed, but it could be initiated without.

Q Would that gas go through a gasoline plant or other extraction plant?

A It would need to be stripped or partially stripped, because it does contain some condensate.

Q Now, you indicated that the Strawn was reaching the bubble point at the current rates of withdrawal. How long is it going to be before the bubble point is reached?

A We have scheduled, or tentatively scheduled fieldwide survey, bottomhole pressure survey of the Strawn reservoir for the middle to latter part of May; the exact date has not been set exactly. That should give us a much more definitive point to



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determine how close we are to the bubble point.

Q You don't know right now just where you are as far as reservoir pressures?

A No, sir. We think we're approaching rather rapidly, but as to a definite number, we do not have it today.

Q And you've requested here that these present temporary rules be extended for a period of one year, is that correct?

A Yes, sir.

MR. NUTTER: Are there any other questions of Mr. Wilson? He may be excused.

(Witness excused.)

MR. CHRISTY: That's the only thing we have.

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

MR. CHRISTY: No, sir.

MR. NUTTER: Does anyone have anything they wish to offer in case 2691?

MR. KASTLER: Bill Kastler appearing on behalf of Gulf. Gulf is a working interest owner in the Lusk Deep Unit and concurs in this application.

MR. NUTTER: Thank you.

MR. BUELL: Guy Buell for Pan American Petroleum Corporation. We would concur in the recommendation that has been made here today, and actually Pan American would go further and recommend



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that the Commission adopt a permanent order at this time, because according to our economics it is going to be impossible to ever develop this Morrow gas down to a development more dense than 640's. So Pan American would also recommend adoption of a so-called permanent order.

MR. NUTTER: Thank you.

MR. WHIGHAM: Carl Whigham, appearing for Texaco, Incorporated. We would like to make the statement that we concur with the recommendation made by Southern New Mexico Oil Corporation in extending these temporary rules for another twelve months. Our reservoir people recognize the current lack of specific data, but the data that is available does indicate that these wells would be non-profitable if spaced on 160 acres. So, we, therefore, favor prolonging the temporary rules in order to obtain additional reservoir information.

MR. NUTTER: Thank you.

MR. DURRETT: If the Examiner please, I would like to state for the record that the Commission has received communications from several operators, all communication supporting continuance of the rules, of the present rules. These communications have been received from Glen W. B-a-r-b, producing Superintendent for Socony-Mobil. We also have communications from Phillips Petroleum, Kerr-McGee, Shell and Delhi-Taylor supporting continuance



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of the rules.

MR. NUTTER: Thank you.

MR. CHRISTY: I might state for the record also that Delhi-Taylor and Kerr-McGee are both overriding royalty owners.

MR. NUTTER: If there's nothing further in Case 2691, we will take the case under advisement.

* * *

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

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

Witness my Hand and Seal this 8th day of June, 1964.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Frontier Hearing of Case No. 2691, heard by me on May 7, 1964.

James H. ...
Examiner
New Mexico Oil Conservation Commission



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PAGE 1

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 12, 1965

EXAMINER HEARING

IN THE MATTER OF:

Case No. 2691 being reopened pursuant
to the provisions of Order No. R-2373-A,
which order continued 640-acre gas
proration units for the Lusk-Morrow
Gas Pool, Lea County, New Mexico, for
one year.

Case No. 2691
(reopened.)

BEFORE:

ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: The first case will be Case 2691.

MR. DURRETT: In the matter of Case No. 2691 being reopened pursuant to the provisions of Order No. R-2373-A, which order continued 640-acre gas proration units for the Lusk-Morrow Gas Pool, Lea County, New Mexico, for one year.

MR. CHRISTY: Sim Christy, Hinkle, Bondurant and Christy, Roswell, for the Southern New Mexico Oil Corporation who is the unit operator of the Lusk Unit where substantially all of the field is.

Mr. Examiner, I want to apologize for Mr. Wilson. He had planned to be here for the Hearing. He testified last year at the Hearing and is very familiar with the case, but he was unavoidably unable to come. However, he has sent a consultant of Southern New Mexico to testify as to what has happened in the last year.

We have one witness. Would you stand and be sworn, please?

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 3 marked for identification.)

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

DIRECT EXAMINATION

BY MR. CHRISTY:

Q Would you please state your name, address and occupation?

A John Hampton.

MR. UTZ: Let me ask for other appearances, please, before you proceed.

MR. CHRISTY: Excuse me.

MR. UTZ: Are there other appearances? Do you have an appearance to make in this State?

MR. KELLY: I probably would make a statement; do you want to have the appearance now?

MR. UTZ: Should have.

MR. KELLY: Booker Kelly, of White, Gilbert, Koch and Kelly, Santa Fe, appearing for Texaco and Tenneco.

MR. JOHNSON: Bob Johnson, for Shell Oil Company.

MR. SWEENEY: H. M. Sweeney, independent.

MR. UTZ: You may proceed.

Q (By Mr. Christy) Would you please state your name, address and occupation?

A John Hampton, 134 Petroleum Plaza Building, Farmington, New Mexico. Special consultant to Southern New Mexico.

Q Mr. Hampton, have you previously testified before

this regulatory body and had your qualifications as a petroleum engineer accepted?

A I have. Yes, sir.

Q Are you familiar with the Lusk Unit area and the wells and what has happened in the production history in the last year or two?

A Yes, sir.

Q Now, sir, let's refer to Exhibit 1 and orient the Commission here; would you briefly identify it?

A The Exhibit 1 is a plat or a map of the area in question in Lea and Eddy County, New Mexico. We show on this map several things. We show all of the wells drilled in the area, the wells with the dark center are wells which have gone to the Strawn and the wells which we've circled in red indicate wells which have been penetrated to Morrow formation. We show in the usual symbols some of them have been plugged and abandoned, some of them temporarily abandoned and some of them still capable of production from the Morrow Zone.

In addition, one well we show with a green arrow pointing to it is the only well which has been drilled and penetrated the Morrow in the area since the last Hearing.

Q That is producing at this time?

this regulatory body and had your qualifications as a petroleum engineer accepted?

A I have. Yes, sir.

Q Are you familiar with the Lusk Unit area and the wells and what has happened in the production history in the last year or two?

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In addition, one well we show with a green arrow pointing to it is the only well which has been drilled and penetrated the Morrow in the area since the last Hearing.

Q That is producing at this time?

A We also show two or three wells drilling in the area.

Q This well marked with a green arrow is the only well penetrating the Morrow that has been producing at this time that was drilled since the last Hearing?

A That has been drilled since the last Hearing.

Q And is producing?

A I don't believe the well has had any production. It's capable of producing.

Q We have seven producing Morrow plus this Texaco State, the new one?

A Correct.

Q Making a total of eight capable of producing at this time in the Morrow?

A That is eight wells, I think, capable of producing. There have been sixteen wells in the area that have penetrated the Morrow. I think eight are plugged and abandoned or temporarily abandoned.

MR. CHRISTY: I believe the record will show that the well history on the other seven Morrow wells was testified to at prior Hearings, and I would at this time like to have some testimony concerning this new Texaco State Well.

Q (By Mr. Christy) Would you refer to Exhibit 2 please, and briefly give us a little well history on the

Texaco State Two C Well?

A Exhibit 2 is just a simple tabulation of what transpired on the Texaco Well. The Texaco Number Two State C Well in Section 32, of Township 19 South, Range 32 East. The well was completed 7-22-64, with two and seven-eighths inch casing set at 12895 feet with 2500 sacks of cement. The TD on the well was 13,000 feet and on 7-27-64, it was producing from the perforation at 12,332 to -36 and 12,378 to -88; the calculated absolute open flow on the well from the Morrow Zone was 2.2 million cubic feet of gas a day and 24 barrels of condensate.

Q Is that well capable of producing gas in commercial quantities?

A To the best of my knowledge, it is.

Q Referring back to Exhibit 1 for a moment, I notice that this plat map shows a number of additional Strawn wells from last year; approximately how many Strawn wells have been drilled since May of last year?

A Mr. Examiner, May of last year at the date of this Hearing, I think there were approximately 27 strawn wells in the area. I think we thought at that time the area was fairly well developed but since that time, or to date now, there are 49 Strawn wells in the area and there are three wells drilling in the area at the time.

Q So that we have a great expansion in the Strawn from last year which I believe was unanticipated at that time?

A It was not anticipated by us at that time, no, sir.

Q Now, sir, of these seven or eight Morrow wells which ones are producing at this time?

A To the best of my knowledge, we might refer momentarily to Exhibit 3.

Q All right. What is Exhibit 3, would you identify it for us, please?

A Exhibit 3 was a tabulation of production intended to bring the Commission up to date on the production from the Morrow. Production to 3-11-64 has previously been submitted and this was merely another tabulation to bring the Commission up to date on what the production has been from the Morrow Zone so far.

Q I believe it reflects that only one of the wells is producing at this time?

A It reflects right now that one well is producing, that is the Pan American Plains Unit Number Two. I believe that well is located in Section 28 of 19 South, 32 East.

Q The balance of the morrow wells are shutin?

A That is correct, yes, sir.

Q Now, last year, I believe it was testified that we anticipated that the bubble point would be reached in the Strawn, the field would be fully developed and we would be able to go into and anticipated repressuring or pressure maintenance program in the Strawn utilizing the Morrow gas.

Now, can you bring us up to date on what has transpired since that time?

A One of the things we anticipated has transpired. We have passed the bubble point. We have discovered, though, in the production of the Strawn that it was not as critical as it was anticipated the bubble point would be at that time. The general idea was when the bubble point was reached, that the gor's would rise very fast and the wells would fall off in productive capacity. Like I say, the bubble point has been passed. That has not happened.

The wells are still essentially top allowable wells and still essentially producing at solution gor which is about 2300 to one. In addition, we thought at the time the field was almost developed but as I've testified to before, there have been about 22 wells drilled in the Strawn since the last Hearing, and there's still three wells drilling and right now, we can't see much of an end to it.

Q When the field will be defined we don't know yet, is that correct?

A We can not anticipate when the field will be defined.

Q All right.

A It will have to be defined by drilling it appears now and of course, there's quite a bit of drilling going on in the area.

Q Now, with respect to forming a Strawn repressuring or pressure maintenance program, are you having any difficulties in forming it, or has it been formed; what is the status of that program.

A Unfortunately, the status is approximately where it was at the last Hearing. Due to several things, mainly the continuing development in the area and of course, in trying to negotiate and form a pressure maintenance or a secondary unit of any sort, it's what you might say impossible to come up with parameters agreeable to everyone when one well has been completed today and another well has a production history and due to the continuing development there has just not been at this time, a meeting of the minds on how this can be unitized in the Strawn.

The engineering committees have been together, they're continuing to be together, several of the major

companies have run the reservoir through their computers and every effort is being made to unitize, everybody is in the mood to unitize but parameters are difficult if not impossible to come by at this time.

Q So, the pressure maintenance program that had been anticipated a year ago is still not in effect and you would not anticipate it to reach agreement until the field is defined?

A Of course, it was anticipated a year ago that the thing would be in and well along the way by now. It is not in. It's not any -- probably no closer than it was at that time, although there has been a lot of reservoir work done in the Strawn. I personally would not anticipate the unit would be formed until after the field is defined. I just don't see any way to get together until the drilling is over with in the field.

Q Southern New Mexico testified at the last Hearing that they had planned to use the Morrow gas in this pressure maintenance or repressuring program paying the royalty as it's extracted; has there been any change in that plan, is that still anticipated?

A That is still anticipated.

Q That was one of the main reasons it is still shut in?

A As far as Southern New Mexico and most other

operators are concerned, that's the reason it is still shutin.

Q Last year it was testified that the Morrow has excellent permeability and porosity in this area and with that fact in mind and at these departments, do you believe that it is still probably that one well will effectively and efficiently drain 640 acres in the Morrow? Do you see any reason why it would not? I realize you can't see it will.

A We do not have the history of the reservoir to back us up on whether we think it will or won't, but it's my opinion it's quite possible that one well will drain 640 acres.

Q To your knowledge has there been any demands by the royalty or overriding royalty owners to produce the Morrow gas?

A No, sir.

Q I believe this is all Federal acreage?

A To the best of my knowledge, it is.

Q Is there anything I have not covered that you feel would be of interest to the Examiner?

A I believe not. No, sir.

MR. CHRISTY: I believe that's all from this witness.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hampton, on Exhibit 1, the wells with the solid blue dot were Strawn wells, is that correct?

A Yes, sir.

Q And the Strawn is an oil pool?

A Yes, sir.

Q And if I remember correctly it's 160 acre spacing for the Strawn?

A Yes, sir.

Q Now, the wells marked with the wagon wheel, what are they?

A Are you referring, Mr. Examiner, to the well for instance, in Section 29, the well number 1 with the red circle around it?

Q That's correct.

A Those are wells capable of producing gas from the Morrow Zone.

Q Now, are those dual completions?

A Yes, sir.

Q In the Strawn and Morrow?

A Yes, sir.

Q Now, the wells that just show dual completions with the black dot and circle?

A Those are not duals, Mr. Examiner. They are merely just an indication of the Strawn wells.

Q Those are Strawn wells?

A Yes, sir. Let me be sure we're talking about the same thing, for instance, well number 7 in Section 20?

Q Correct.

A Right, those are Strawn wells.

Q Now, the number 4 over in Section 21, the Pan American Section with the cross in it; is that a dry hole?

A Yes, sir.

Q That would be a dry hole in which zone?

A In the Strawn. As would the well up in Section 16, the Superior well.

Q Yes, sir. Is the Strawn producing a substantial amount of gas in this area?

A I think, Mr. Examiner, the wells are like I said, essentially top allowable gas wells, oil wells and are producing at an average of 2300 cubic feet of gas to a barrel of oil.

Q The gor's aren't real high?

A They're not near what we anticipated they would be after the bubble point was passed.

Q What is happening to the Strawn gas?

A The strawn gas is being sold to Phillips, Mr .

Examiner.

Q At a casing head gas price, no doubt?

A No doubt.

Q This brings me to the question as to why isn't the Morrow gas being sold?

A Mr. Examiner, it's our opinion, and I think the other operators in the field opinion, that the Morrow gas is more valuable both to the operators and the royalty owners in repressuring the Strawn than it would be sold on the open market.

Q It's your intention, then, to use that at a later date?

A We still have every intention to repressure or pressure maintain the Strawn with the Morrow gas.

Q Now, would this reason be one of the reasons why the Morrow was not being developed at a very rapid pace?

A I think probably all the operators are of the same opinion that we are, that one well will drain a section, or 640 acres and the zone is fairly well developed on 640 acres.

Q Well, would the fact that you are not intending to sell the gas, the Morrow gas at this time, saving it for repressuring be the main reason that the Morrow isn't being developed?

A That's the main reason it isn't being sold, if that's what your question means. As to why wells are not being drilled, I just couldn't answer your question, Mr. Examiner. It has been fairly well defined, as you can see by the dry holes, which are indicated with the handle bars so to speak around the field, the red circles.

Q How many undeveloped Morrow tracts would you say are left in the pool at the present time?

A It appears to be about four, maybe five.

MR. CHRISTY: I don't think there's that many.

A Probably four.

Q (By Mr. Utz) There could well be anywhere from three to five, right?

A I believe there would be.

Q There are now how many wells?

A There are eight wells capable of producing.

Q On your Exhibit 3, you only show three wells, is there any particular reason for this? Are all the other wells, the five wells, shutin?

A All of the other wells are shutin, Mr. Examiner. Those are the only three wells that have a production history.

Q Would you consider the Texaco Number 2 State CS as being somewhat of an edge well in the Morrow?

A It appears to be, yes, sir.

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Q The reason for my asking that question is you spoke of rather high permeabilities in the Morrow Section. Would you say that 2200 AOF would indicate high permeability?

A No, sir. On the surface it would not.

Q Pretty tight in that hole, anyway?

A Yes.

MR. CHRISTY: For the record, Mr. Examiner, I believe I stated that in last year's testimony it was stated that it had high permeabilities and porosities. I don't believe that this witness necessarily made that statement.

MR. UTZ: No, you are correct. You stated that the previous record did show that?

MR. CHRISTY: It did show that and it's a fact.

Q (By Mr. Utz) Do you know how the absolute open flows were in the other wells? Were they pretty good wells?

A No, sir, they were not. The average was probably less than two million.

Q Does that indicate a high permeability?

A Well, on the surface, if that's all you look at, it doesn't, no, sir.

Q What else do you look at for permeability?

A Volume, I mean you may have poor volumes rather than being the permeability, it may just be the volume in

the reservoir.

Q Thin pay section?

A It is thin. Well, the quality of it is just not known, we just don't have the history to know the quality of the well.

Q And you haven't had enough production to know what the wells will actually do?

A Right, yes, sir.

Q What kind of pressures do you have?

A I think on the order of five thousand pounds. In the neighborhood of five thousand pounds, Mr. Examiner, judging from the drill stem tests that have been taken.

Q Is the Morrow area unitized?

A Partially.

Q You said partially?

A It's like the Strawn. The Strawn is partially. You'll notice on this map an outline, Mr. Examiner, in Section 17, 20, 19 and portions of 18 and 24; that is the Lusk Deep unit and I think the Strawn and the Morrow coincide with the exception of Section 17, the east half is not in the participating area, I understand, in the Morrow.

Q Who is the operator of the Lusk Deep Unit?

A Southern New Mexico.

Q You do have leases outside the unit?

A Yes, sir.

Q These Morrow wells may not be very big, but they are pretty deep, is that about it?

A That's about right, Mr. Examiner.

MR. UTZ: Any other questions of the witness?

MR. CHRISTY: I would like to ask you one question.

REDIRECT EXAMINATION

BY MR. CHRISTY:

Q I believe it was previously testified that these Morrow wells cost about \$250,000.00 to drill and complete?

A Yes.

Q Is that estimate still valid?

A Yes.

Q In other words, they're rather expensive operations?

A Yes, sir.

MR. SWEENEY: I would like to ask one question on that -- H. M. Sweeney, Roswell. That on the initial completion data, at least four of those wells were over fifteen million. I just wondered if Southern Union had taken any subsequent tests and that the capabilities hadn't been reduced that much. There's one, I believe, around thirty million on the initial completion. That's Number 2, Number 3 unit well.

A To my knowledge, we have taken no subsequent tests, Mr. Sweeney. Number 3, you say?

MR. SWEENEY: Yes.

MR. UTZ: Are you questioning the average of two million absolute open flow?

A If there was subsequent data that I wasn't aware of. I think they're better wells than that. Number 3 Lusk, you say?

MR. SWEENEY: Yes.

A It might be my dope is all wrong. Mine shows 2350 mcf.

MR. SWEENEY: I believe the initial completion was thirty million.

I have a report here by Gruen in which they give it as that from the data they got from El Paso.

A I'm sorry, that's all the information that I have.

MR. CHRISTY: The records that the witness is testifying from are the records in the last Hearing. They are the information on the other Morrow wells, which were previous testified.

MR. SWEENEY: It isn't exactly pertinent and I wouldn't question it but -- except I wanted to know if there was some information that I wasn't aware of. I believe that Yates well in Section 30 potentialled for something like fifteen million.

A The date of this test that I have here was 10-31-61 and I show no subsequent test to that.

MR. UTZ: Does your record show whether it was a natural completion at that time or not?

A Natural, yes, sir.

MR. SWEENEY: All those wells were completed naturally?

MR. UTZ: There has been no stimulation?

MR. SWEENEY: No.

MR. UTZ: Do you know whether or not, Mr. Sweeney, whether an absolute open flow on Form C 122 has been filed with the Commission on these wells that you speak of?

MR. SWEENEY: I'm sure they were because it was necessary to get permission, of course, for the dual completion.

MR. UTZ: In that case then, Mr. Sweeney, the Commission will take cognizance of its records in that respect as far as the absolute open flow on those wells is concerned.

Any other questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: Any statements in the case?

MR. CHRISTY: At this time, I would like to offer

in evidence Applicant's Exhibits 1, 2 and 3.

MR. UTZ: Without objection, the exhibits 1, 2 and 3 will be entered into the record in this case.

(Whereupon, Applicant's Exhibits 1, 2, and 3 were offered and admitted into evidence.)

MR. CHRISTY: Mr. Examiner, we have copies of letters and wires from Kerr McGee and Yates Petroleum. I'm wondering if the Commission already has them, it indicates that you have a copy.

MR. UTZ: Pan American, Gulf, Kerr McGee, Phillips Petroleum, Yates.

MR. CHRISTY: That's all for the Applicant.

MR. KELLY: Booker Kelly on behalf of Texaco Inc., and Tenneco Oil Company support the position of Southern New Mexico in the continuation of the 640 acre spacing.

MR. UTZ: Was that Texaco and Tenneco?

MR. KELLY: Both.

MR. UTZ: You represent them both?

MR. KELLY: Yes.

MR. JOHNSON: Mr. Bob Johnson, on the behalf of Shell; Shell desires that the present temporary field rules for 640 acre spacing be continued.

MR. UTZ: Any other statements?

MR. SWEENEY: H. M. Sweeney, Independent, Roswell.

I have both leasehold and royalty interest in the field and I endorse the position of Southern New Mexico in asking that the temporary rules be continued. If I might add to that statement, that in my opinion, the Morrow gas has been reasonably defined with not more than one or two potential drillable locations and in both of those locations, Strawn wells have been drilled and it doesn't appear advisable to the operators to spend the approximately \$100,000.00 it would take to drill to and complete in the Morrow and those locations are extremely doubtful. For all practical purposes, I think the Morrow gas Pool has been defined.

MR. DURRETT: If the Examiner please, I would like to state for the record, that the Commission has received letters from Gulf Oil Corporation and Yates Petroleum Corporation supporting continuation of the rules, and they have received telegrams from Phillips, Kerr McGee and Pan American supporting the continuation of the rules.

MR. KELLY: Mr. Examiner, also for the record, I would like to state I have examined title to the Lusk unit and Tenneco as successor to Delhi-Taylor and Kerr McGee is an over-riding royalty owner in the Lusk unit area.

MR. UTZ: Am I correct in that you are requesting

at this Hearing, a continuation for a certain period of time of the temporary rules?

MR. CHRISTY: Yes, we would like continuation for at least a year. We just could not have any more definitive information before a year. As testified at the previous Hearing, when the field is developed, the Strawn is developed, it will take approximately six months thereafter in order to get the operators together and form the pressure maintenance or the repressuring unit. It will take approximately six more months to pressure up the area and utilize the Morrow gas as you have to give it some well history. Therefore, a minimum of a year will be sincerely appreciated. We may have to come back if the field is not developed then. We don't know where we'll end up with the Strawn.

MR. UTZ: Any other statements? The Case will be taken under advisement.

Let's take a ten minute coffee break.

(Whereupon, a recess was held.)

I N D E X

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E X H I B I T S

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Applt's. 2	2	21	21
Applt's. 3	2	21	21

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PAGE

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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 17th day of May, 1965.

Ada Dearnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner's hearing of Case No. 2691, heard by me on May 12, 1965.
Theresa A. J. H.
New Mexico Oil Conservation Commission

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOREGISTER

HEARING DATE

MAY 12, 1965

TIME:

9 A.M.

NAME:	REPRESENTING:	LOCATION:
R.E. Johnson	Shell Oil Co	Roswell
Richard F. Morris	Seth, Montgomery, Federali	Andrews Santa Fe
Richard B. Kroll	U. S. G. S	Farmington
W. J. Rogers	Worldwide Petr.	Denver
J. C. Christy	Hinkle, Bondurant & Christy	Roswell
Borke Kelly	White (allied) K. & Kelly	S.F.
Jason W. Kellahi	Kellahi & Fox	Santa Fe
H. M. Freeman	Independent	Roswell
C. L. WHIGHAM	TEXACO INC.	MIDLAND, TEXAS
Frank E. Dwy	State Engr. Office	Santa Fe -
Henry Birdseye	Henry Birdseye	Albuquerque

BEFORE EXAMINER NUTTER

EXAMINATION COMMISSION

X-FILE NO. 2

CA. 1. 2691

EL PASO NATURAL GAS COMPANY

WELL COST ESTIMATE ☒ OR FINAL COST

Form 22-32 (Rev. 2-6-61)

EP Exhibit

LEASE NAME		WELL NO.		FIELD	
Lusk Deep Unit Area		Single Completion		Lusk Deep Unit	
LOCATION		COUNTY		STATE	
T - 19S, R - 32E		Lea		New Mexico	
FORMATION		TOTAL DEPTH		TOTAL DAYS	
Morrow - Single		12,700'		90	
				PRODUCING WELL	
				SUB	
				TOTAL	
				DRY HOLE	
TUBULAR GOODS:					
Surface Casing 800 Ft. 13-3/8 Inch 6.861 \$/Ft.				\$ 5,490	
Int. Casing 4,600 Ft. 9-5/8 Inch 5.709 \$/Ft.				26,220	
Prod. Casing 12,700 Ft. 4-1/2 Inch 1.800 \$/Ft.				22,860	
Tubing 12,700 Ft. 2-3/8 Inch 0.70 \$/Ft.				8,890	
				\$ 63,460	
WELLHEAD EQUIPMENT				5,800	
				5,800	
OTHER EQUIPMENT:					
Surface Production Equipment				8,000	
Liner Hangers and Production Packers				1,000	
Tubing Accessories				9,000	
DRILLING COSTS:					
Footage 10,000 Ft. \$/Ft.					
Day Work 45 Days \$/Day					
Day Work 10 Days \$/Day					
Day Work Days \$/Day					
Service Unit Days \$/Day					
Rig Rental Tools					
Rig Moving Costs				109,200	
CEMENTING: (Cement, Pump Trucks and Drayage)					
Surface				2,300	
Intermediate				6,000	
Production				2,200	
Liner					
Liner					
Sq. Jobs				3,000	
FORMATION TREATMENT: NO.				13,500	
Acidizing					
Fracturing - Equipment					
Fluid Gal.					
Fluid Additives					
Propping Agent Lbs.					
Tank Rental					
SPECIAL SERVICES (Surveys and Tests)					
Perforating				1,800	
Mud Logging					
Electric and Radioactive Logging				6,000	
Drill Stem Tests				1,000	
Cores				8,800	
MATERIALS:					
Drilling Mud and Chemicals				28,000	
Drilling Gas or Air					
Water				10,000	
Bits				11,500	
Fuel				5,000	
Hauling				5,000	
Tubular Inspection				2,000	
Miscellaneous				28,000	
ACCESS AND LOCATION AND CLEANUP				89,500	
SUPERVISION, LEGAL, ETC.				7,000	
				2,000	
				9,000	
Total Direct Cost				308,260	
Plus 5 % Contingency				15,410	
TOTAL COST				\$ 323,670	
				\$ 323,670	
				\$	
WORKING INTEREST:				ESTIMATED COST ONLY - Each Participating Owner to Pay	
El Paso Natural Gas Company				Proportionate Share of Actual Well Cost Subject to Operating	
Others				Agreement.	
DATE				PARTNER'S APPROVAL:	
PREPARED BY				DATE	
APPROVED BY				BY	

LUSK MORROW PRODUCTION

Year	Month	SO. N.M. OIL CORP.		PAN AMERICAN		PAN AMERICAN		TOTAL	
		So. Cal. Fed. No. 1	Dist. Bbls.	Platins Unit No. 1	Dist. Bbls.	Platins Unit No. 2	Dist. Bbls.	Gas-MCF	Dist. Bbls.
Totals to 3-1-64		167,065	5,182	109,265	3,513	406,712	10,823	683,042	19,518
1964	3	S. I.		5,291	198	38,429	734	43,720	932
	4	S. I.		S. I.		68,054	1,079	68,054	1,079
	5	S. I.		S. I.		51,347	678	51,347	678
	6	S. I.		S. I.		37,828	642	37,828	642
	7	S. I.		S. I.		45,580	423	45,580	423
	8	S. I.		N. R.	67	32,316	467	32,316	534
	9	S. I.				27,994	462	27,994	462
	10	S. I.		T/A		22,798	255	22,798	255
	11	S. I.		T/A		18,432	212	18,432	212
	12	S. I.		T/A		4,614	210	4,614	210
	1	S. I.		T/A		3,047	263	3,047	263
	2	S. I.		T/A		12,993	76	12,993	76
Totals; 3-1-64 to 3-1-65		167,065	5,182	5,291	265	363,432	5,501	368,723	5,766
Grand Totals		167,065	5,182	114,556	3,778	770,144	16,324	1,051,765	25,284

4/3

Ex 2

Lea County, New Mexico

Texaco No. 2 State "CS" 32-19S-32E

Completed: 7-22-64

2-7/8" Casing @ 12,995' w/2,500 sx

TD 13,000'

7-27-64 - Perforated 12,332 - 36', 12,378 - 388'
CAOF 2,200 MCFGPD + 24 bbls. condensate
Completed natural

LUSK MORROW PRODUCTION

Year	Month	SO. N.M. OIL CORP.		PAN AMERICAN		PAN AMERICAN		TOTAL	
		So. Cal. Fed. No. 1	Gas-MCF	Plains Unit No. 1	Gas-MCF	Plains Unit No. 2	Gas-MCF	Dist. Bbls.	Dist. Bbls.
1962	9	N.R.		29				29	
	10								
	11								
	12	N.R.		842				842	
1963	1		30,760	842				30,760	842
	2								
	3		4,000	152				4,000	152
	4		42,411	1,115				42,411	1,115
	5		44	209				44	209
	6				5,144				
	7				4,413				
	8				4,199				
	9				10,109				
	10				5,728				
	11				15,297				
	12		19,399	191	21,371			19,399	191
1964	1		1,255	78	7,835			1,255	78
	2								
			36,675	683	2,502			36,675	683
			32,511	1,041	8,583			32,511	1,041
Totals			167,065	5,182	109,265	3,513	406,712	10,823	683,042
									19,518

app Ex B
 2691
 5/7/64

LEA COUNTY, NEW MEXICO

PAN AMERICAN NO. 1 PLAINS UNIT 27 - 19S - 32E

Completed: 10-19-62

5-1/2" Casing @ 12,160' W/790 Sacks

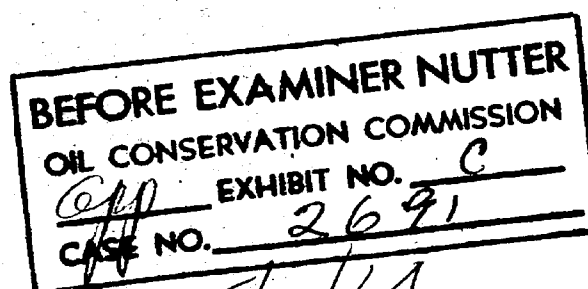
TD 13,160' PBD 13,085'

13,004 - 13,010' CAOF 1420 MCFGPD (Morrow)

DST 12,660 - 12,716' Open 5 Hrs. GTS 15 Min. Vol. 750 MCF
Recovered 1000' WB + 1800 GC dist. Gravity 48.7 No. Press. Reported

10-8-62 TD 13,160' PB 13,085' MORT
Perf. 24/13,004 - 13,010' A/500
Flowed 69 Bbls. dist + 28 BLW in 20 Hrs. 24/64" choke
Gas Vol. 1,430 MCFGPD
Flowed 84 Bbls. dist/24 Hrs. thru 24/64" choke
Gas Vol. 1,465 MCFGPD

10-22-62 Comp.
4 point gauges
Flowed 1120 MCF 14/64" choke + 2.5 Bbls. dist. in 2 Hrs. TP 1165#
Flowed 1200 MCF 16/64" choke + 6.7 Bbls. dist. in 2 Hrs. 45 Min.
TP 900#
Flowed 1300 MCF 18/64" choke + 8.4 Bbls. dist. in 2 Hrs. 30 Min.
TP 745#
Flowed 1360 MCF 24/64" choke + 8.4 Bbls dist. in 2 Hrs. TP 612#



5/7/64

COST ESTIMATE
12,600' MORROW COMPLETION
LUSK AREA

PREPARATION EXPENSE

Stake Location	\$ 125.00	
Road, pad and damages	3,000.00	\$ 3,125.00

DRILLING EXPENSE

Rotary: 3800' @ \$5.50/ft.	\$20,900.00	
42 days @ \$1,150/day	48,300.00	
8 days @ \$1,050/day	8,400.00	
Water and Mud	20,700.00	
Fuel	2,100.00	
Bits	11,000.00	\$111,400.00

CASING & CEMENTING

A. 800' of 13-3/8" H-40 Casing	\$ 4,848.00	
Centralizers	74.00	
Float shoe	167.00	
Cement and cementing services	1,640.00	
Trucking	800.00	
	\$ 7,529.00	
 B. 3800' of 8-5/8" 32# J-55 ST & C Seamless		
Casing	\$14,706.00	
Centralizers	147.00	
Float Shoe	176.00	
Float Collar	174.00	
DV Packer cementing collar	1,819.00	
Cementing baskets	360.00	
Cement and cementing services	5,885.00	
Welding	140.00	
Temperature survey	79.00	
Trucking	1,580.00	
	\$25,066.00	
 C. 3,700' of 4-1/2" 13# LT & C Seamless		
Casing, N-80	\$ 7,659.00	
8900' of 4-1/2" 11.6# N-80 LT & C		
Seamless Casing	15,753.00	
Centralizers	153.00	
Float shoe and collar	104.00	
Cement and cementing services	2,650.00	
Welding	80.00	
Trucking	2,200.00	
Temperature survey	79.00	
	\$28,678.00	\$ 61,273.00

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5/7/64

COST ESTIMATE
12,600' MORROW COMPLETIONSPECIAL SERVICES

Drill stem testing	\$ 5,380.00	
Logging and perforating	8,200.00	
Acidizing	<u>1,800.00</u>	\$ 15,380.00

WELL EQUIPMENT

12,600' of 2-3/8" 4.7# N-80 Seamless Tubing	\$10,710.00	
X-mas Tree	3,690.00	
Heater, high & low pressure separators	4,950.00	
1000' of 2-7/8" tubing for flowline, coated & wrapped, ditched & backfilled	1,640.00	
Stock tanks, 2 - 500 bbls. bolted steel, erected on location	3,300.00	
Line pipe for battery hook-up	600.00	
Valves, fittings, miscellaneous	1,800.00	
Trucking	<u>800.00</u>	\$ 27,490.00

MISCELLANEOUS

Pulling Unit	\$ 960.00	
Location clean-up	500.00	
Roustabout Labor	800.00	
Dirt Work	125.00	
Fencing	<u>250.00</u>	\$ 2,635.00

Sub-Total	\$221,303.00
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State Tax @ 3%	\$ 6,639.00
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Contingencies @ 10%	\$ 22,130.00
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TOTAL ESTIMATED COST	<u>\$250,072.00</u>
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BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. <u>D</u>
CASE NO. <u>2691</u>

LEA COUNTY, NEW MEXICO

EL PASO NAT. GAS CO. NO. 3 LUSK 20 - 19S - 32E

5-1/2" Casing @ 12,468' W/650 Sacks

DST 12,172 - 12,327' Open 1-1/2 Hrs. Rec. 2000' WB + 1700'
brackish WCDM ISIP 1 Hr. 5695# FP 1100-1450# FSIP 1 Hr. 5625#

DST 12,475 - 12,621' Open 1 Hr. Rec. 20' SDCM
ISIP 1 Hr. 995# FP 710-780# FSIP 1 Hr. 925#

S.P. DST 12,367 - 12,468' Open 1 Hr. (Used 2000' N₂) GTS 5 Min.
@ 9500 MCF - Rec. 500' dist. + 1' Mud FP 4385-5380# FSIP 1 Hr. 5750#
Perf.: 12,370 - 12,390' Natural

Flowed 2356 MCF + 188 Bbls. Cond. thru 11/64" choke Gravity Cond. 55.5
10-31-61 TP 3598#

TD 12,623' PB 12,468'

LEA COUNTY, NEW MEXICO

PAN AMERICAN NO. 2 PLAINS UNIT 28 - 19S - 32E

Morrow 12,403 - 12,530' Flowed 3 MMCFGPD 16/64" Choke
2200 FTP 7" @ 12,765'

DST 12,409 - 12,545' Open 2 Hours 21 Min. GTS 60 Min. Flowed
3250 MCF + 5.5 Bbls. Dist./1' Rec. 390' dist. Gravity 60.6°
60 Min. ISIP 4978#, FP 2237 - 3375# 90 Min. FSIP 4913#

Perf. (Morrow) 18/12,403 - 12,412', 22/12,480 - 12,491',
12/12,494 - 12,500', 24/12,504 - 12,516', 22/12,519 - 12,530'

Treated 1000 gallons acid (Morrow)

TD 12,996' PB 12,629'

DELHI-TAYLOR OIL 1-23 JONES 23 - 19 - 31

DST 12,650 - 12,786' Open 3 minutes Packer failed

DST 12,620 - 12,853' Packer failed

Perf. 12,679 - 12,689' W/2 SPF

Set BP @ 12,705' and Packer @ 12,659'

A/ 500 gallons Swabbed dry.

Re-A/5,000 gallons Tested - No gauge

Perf. 12,422 - 12,434', 12,510 - 12,528' W/2 SPF

Set BP @ 12,750' and Packer @ 12,460'

A/5,000 gallons

Swabbed acid water and formation water w/slight show of gas

Set BP @ 12,365'

(Came back up to Strawn)

DRY IN MORROW
COMPLETED FROM STRAWN

H. N. SWEENEY NO. 1-A MALONE 13 - 19 - 31

DST 12,290' - 12,433' of 1 hour GTS 14 minutes @ 25 MCFGPD Recovered
370 GCM.

1 hour ISIP 1,975# FP 200-200# 1 hour FSIP 1,225#

DST 12,450' - 12,695' Open 2 hours 30 minutes GTS 3 minutes @ 1,150 MCFGPD
+ 7.5 barrels condensate per hour. Reversed out 400' condensate. Gravity-
48.3

4 hours 11 minutes ISIP 5,465# FP 2,969 - 4,892#

2 hours FSIP 5,002#

Perf. 12,603' - 12,615', 12,618' - 12,632' W/4 SPF Flowed 200 MCFGPD -
Natural.

Perf. 12,446' - 12,456', 12,464 - 12,468', 12,475 - 12,483' W/4SPF
Flowed 1,000 MCFGPD + 15 barrels condensate per hour thru 1/8" choke

Tubing pressure 3,125#

Flowed 1,500 MCFGPD + 95 barrels condensate per day thru 12/64" choke

Tubing pressure 1,700#.

TD 12,715' Testing-No gauge - 11-26-63

TD 12,715' Testing-No gauge - 12-2-63

Morrow BHP dropped from 5,000# to 1,700#

Set packer @ 11,830'

Perf. 11,816 - 11,822' W/2SPF

Swabbed 100% water.

12-16-63 TD 12,715' P&A

T/Morrow 11,816'

NO MORROW COMPLETION

P&A

LEA COUNTY, NEW MEXICO

SHELL NO. 1 MIDDLETON - FEDERAL "B"
31 - 19S - 32E

TD 12,976'

Water Supply Well

DST 12,395 - 12,600' Open 76 Min. Rec. 220' DM 60 Min. ISIP 234#
FP 234 - 256# 120Min FSIP 512#

DST 12,632 - 12,832' Open 3 Hrs. GTS 12 Min. @ 495 MCF Decreased to
375 MCF @ end of test.

Rec. 720' HGC & VSW & dist. CM
60 Min. ISIP 5092# FP 427-405# 90 Min FSIP 4588#

Completed as Water Supply Well

PAN AMERICAN NO. 8 GREENWOOD 7 - 19 -32

10-1-62 TD 12,440'
DST 12,267 - 12,340' Open 3 hours 30 minutes GTS 1 hour 28
minutes @ 5 MCFGPD
Recovered 1140' WB + 120' GCM FP 657 - 657# 60 minutes ISIP
2387# 60 minutes FSIP 3976#

10-8-62 TD 12,657' PB 12,430 Testing
Set BP @ 12,410' Drilled out to 12,430'
DST 12,256 - 12,430 Open 4 hours 6 minutes Recovered 1,000'
NB + 598' GCM FP 680-680# 60 minutes ISIP 4,655#
60 minutes FSIP 2,711#

P&A

PAN AMERICAN NO. 7 GREENWOOD UNIT 12 - 19 - 31

DST - 12,057' - 12,095' open 1 hour 30 minutes Recovered 1500' GCWB +
558' SGCSW 60 minutes ISIP 5245, FP 830-945# 60 minutes FSIP 4465#
DST - 12,105 - 12,175 Packer failed

3-26-62 TD 12,794' SD casing parted
4-2-62 TD 12,794' SD casing parted
4-9-62 TD 12,794' PB 10,341' MORT
4-16-62 TD 12,794' PB 11,450' Testing

Perf. 96/11,136' - 11,160' Treated 500 gallons acid, retreated 2500 gallons
acid. Flowed 62 BLW in 3 hours

4-23-62 TD 12,794' - PB 11,450 - Testing.
Set retainer BP @ 10,300' Perf. 28/10,212' - 10,226'
Treated with 2,000 gallons acid. Flowed 220 BNO + 20 BFW in 24 hours thru
20/64" choke Tubing pressure 400#

4-30-62 TD 12,794' PB 11,450' Completed
Perf. 104/8,616' - 8,668' Treated with 1,000 gallons acid.

NO COMPLETION ATTEMPT IN MORROW

LEA COUNTY, NEW MEXICO

EL PASO NAT. GAS CO. NO. 5 LUSK DEEP UNIT FEDERAL
19 - 19S - 32E

5-1/2" Casing 12,554' W/600 sacks
Morrow 12,400 - 12,412' CAOF 9450 MCFGPD Natural

6-3-63 Ø 12,047' Lm.

6-10-63 Ø 12,460'

DST 12,122 - 12,339' Packer failed

DST 12,120 - 12,339' Open 2-1/2 hours WBTS in 1-1/2 hours GTS 1 hour
40 minutes @ 2290 MCF decreased to 810 MCF @ end of test. Rec. 1060'
HO& GCDM 60 Min. ISIP 5400# FP 2510-1920# 60 Min. FSIP 4350#.

6-17-63 TD 12,560' Swabbing Morrow
Perf. (Morrow) 12,400 - 12,412' W/2 SPF

7-8-63 TD 12,560' PB 12,554' Completed

LEA COUNTY, NEW MEXICO TENNECO NO. 1 USA - TRIGG - FEDERAL 8 - 19 - 32

5-1/2" @ 12,798' W/550 sacks

1-27-64 12,544' Lm - Sh - Sd

2-3-64 12,800' Tight

2-17-64 12,800' Tight-testing

2-24-64 12,800' PBTD 12,725' Tight.

3-9-64 12,800 PBTD 12,725' Tight

4-20-64 12,800 PBTD 12,725' Tight

Perforate (Morrow) 12,408 - 12,412', 12,437 - 12,438', 12,443 -
12,444', 12,470 - 12,471', 12,489 - 12,490', 12,526 - 12,527',
12,546 - 12,547', 12,662 - 12,663', 12,692 - 12,694' W/2 SPF

A/200 gallons (MA) Swabbed gas @ TSTM
Morrow Zone 12,408 - 12,694' Temp. Abnd.

6-10-63 12,210 Drilling L-Sh-Sd

6-17-63 12,554 Drilling L&Sh

6-24-63 12,775' Drilling L & Sd Prep. to run casing.
5-1/2" @ 12,775' W/850 sx.

DST 12,656 - 12,757' Open 3 Hours - GTS 1 hour 17 minutes @
1,800 MCFGPD Recovered 1,080' WB & 1,410 GCM, No ISIP FP 1,546-
1,061#

2 hours FSIP 4,919#
SP DST 12,339 - 12,418' Open 3 hours 10 minutes GTS 2 hours 45
minutes @ TSTM Recovered 3,000' GCWB + 465' W&GCM + 465' MCSW
No ISIP FP 1,626-1,783# 2 hour FSIP 5,065#

Perf. Morrow 12,422 - 12,426', 12,428 - 12,432, 12,436 - 12,438,
12,470 - 12,472', 12,476 - 12,482', 12,492 - 12,498', 12,514 - 12,516',
12,522 - 12,530', 12,532 - 12,536', 12,655 - 12,661', 12,688 - 12,698',
12,714 - 12,720' W/2 SPF

7-8-63 TD 12,775' Swabbed lower zone (Morrow)
Strawn complete
Set packers @ 11,360', 12,326', 12,590'
A/500 gallons (12,422 - 12,536')
A/500 gallons (12,655 - 12,720)

7-15-63 TD 12,775' Testing Morrow
Flowed 1,345 MCFGPD thru 20/64" choke Tubing pressure 575#
12,655 - 12,720

7-22-63 TD 12,775' Prep. to test.
Re A/10,000 gallons MA (Morrow)

7-29-63 TD 12,775' Testing Morrow-no gauge

8-5-63 TD 12,775' Testing Morrow-no gauge

8-12-63 TD 12,775' Prep. to run tracer survey.

8-19-63 TD 12,775' Testing Morrow
Tracer Survey indicated communication
Re-set Packers @ 7,370' & 12,350'

8-26-63 TD 12,775' SI

9-3-63 TD 12,775' WO Potential (Morrow)

9-9-63 TD 12,775' Same

Page (2)

DELHI-TAYLOR NO. 1-A JONES FEDERAL 25 - 19 - 31

9-16-63 TD 12,775' Completed

Four Point Test

F/940.7 MCFGPD thru 18/64" choke TP 1123#

F/952.1 MCFGPD thru 20/64" choke TP 1014#

F/966.5 MCFGPD thru 22/64" choke TP 978#

F/980.8 MCFGPD thru 24/64" choke TP 917#

IPCAOF (12,422 - 12,720) 1,200 MCFGPD + 56 B Cond. + 4 BW Gravity 49.8
GOR 12,109 SITP 5150#

LEA COUNTY, NEW MEXICO

SHELL OIL COMPANY NO. 1 MIDDLETON "A" 18-19S-32E

- 2-7/8" (3 strings) @ 12,502' W/2300 sacks.
- 8-20-62 Drilling 12,470'
- 8-27-62 Drilling 12,515' Running casing.
DST 12,168 - 12,515' Packer failed
DST 12,130 - 12,515' Open 3 hours
GTS 15 minutes Gas Vol. 1,000 MCFGPD
Reversed out 1,230' GCM below Sub
ISIP Failed FP 1135 - 1536# 1 hour FSIP 4921#
- 9-4-62 TD 12,515' PB 12,482' Testing
Perforate (Morrow) 12,242 - 12,245', 12,246 - 12,249',
12,260 - 12,263', 12,274 - 12,280', 12,426 - 12,430 W/2 SPF
Swabbed & Flowed 30 BO + 4 BW & 630 MCFGPD/4Hours Thru 12/64"
choke & 17/64" choke (Natural)
- 9-10-62 TD 12,515' PB 12,482'
A/(Morrow) 12,242 - 12,430' W/1000 gallons.
- 10-1-62 TD 12,515' PB 12,482' Testing
(Morrow) 110' MCFGPD 12/64" choke FTP 250#
- 12-16-63 TD 12,515' PB 12,482' SI
Set C.I. BP @ 11,785'

MORROW ZONE NOT COMPLETED

LEA COUNTY, NEW MEXICO

EL PASO NAT. GAS CO. NO. 2 LUSK DEEP UNIT - FEDERAL

18 - 19S - 32E

5" liner 11,299 - 13,551' W/717 sacks

Morrow 12,380 - 12,398' Flowed 4,000 MCFPD 1/4" choke 2
hour test

1-31-64 TD 11,400' WOC Lm & Sh

2-6-61 Ø 12,270'

2-13-61 Ø 12,500' Lm & Sh

DST 12,262 - 12,274' Open 30 minutes Recovered 3,000' WB +
20' SGC mud 20 minutes ISIP 1895# FP 1410# 20 minutes FSIP
1535#

DST 12,376 - 12,424' Open 1 hour 30 minutes used 3000' WB. WB
to surface in 10 minutes GTS 21 minutes Dist. TS 30 minutes
Flowed 12,000 MCFGPD thru 1/2" choke Flowed 3 Barel Dist. in 30
minutes Recovered 550' Dist. 20 minutes ISIP 5225# FP 2910-
4622# 25 minutes FSIP 5242#

DST 12,424 - 12,452' Open 30 minutes Recovered 3,000' WB + 5'
VSGCM 20 minutes ISIP 1815# FP 1420# 20 minutes FSIP 1525#

2-21-61 Ø 12,940' Lm & ch.

2-27-61 Ø 13,240' Lm & sh

3-7-61 TD 13,692' Lm & Dolo. prep. to core

DST 13,480 - 13,554' Open 1 hour used 3,500' NB, Rec. NB + 250'
Brackish WCM 20 minutes ISIP 5760# FP 1195 - 1300# 20 minutes
FSIP 5575#

Cored 13,640 - 13,691' Rec. 51' Dolo. PPP 13,640 - 13,665'

3-14-61 TD 13,974' Run logs @ 13,692-13,741' Rec. 49' Dolo. N.S.

3-20-61 TD 13,974' Prep. to run liner.

DST 13,946 - 13,974' Open 40 minutes Rec. 4,000' NB + 20' VSGC&WCM
20 minutes ISIP 5595# FP 1205 - 1225# 20 Min. FSIP 5285#

3-27-61 TD 13,974' DO 12,503 Prep. to perf.

4-3-61 TD 13,974' DO 12,503

Perf. 36/12,380 - 12,398' 120/11,220 - 11,250'
Treated 12,000 gallons Acid.

LEA CO. 29-19S-32E

El Paso 1 Southern Calif. - et al

Morrow completion 7-24- 62
12448-488 CAOF 18,000 MCFGPD
GOR 48,873 52.9° Gty.

5-1/2" @ 12834'

Morrow DST 12312-412 Op. 2'45" GTS 28"
Gas vol. 750 MCF Rec. 180' cond. + 680' H cond. & GCM
ISIP 5668# FP 256-296# 75" FSIP 5694#

DST 12412-582 Op. 1' 27" GTS 7" MTS 21"
Dist. to S. 25" flowed gas @ 8 MMCF thru 1" choke increasing to
11.2 MMCF + 20 B dist. PH for 1' 2" Rev. out full string dist.
Rec. 150' H dist. and GCM below sub
75" ISIP 5392# FP 3882-4778# 1' FSIP 5755#

7-16-62

T.D. 12834 S.I. W. O. Pot.

Perf. (Morrow) 28/ 12448-462, 16/ 12470-478, 16/ 12480-488 Natural

Flowed 1460 MCFGPD	8/64	choke	TP 3973#
" 2871	" 11/64"	"	TP 3732#
" 4215	" 14/64"	"	TP 3412#
" 5843	" 17/64	"	TP 3051#

F/1509 MCF / 20 hrs. 6/64" TP 3992#

LEA COUNTY, NEW MEXICO

S. P. YATES & MARTIN YATES III NO. 1 FEDERAL ELLIOT - HALL
30 - 19S - 32E

Morrow Comp.: 7-8-63

5-1/2" Casing @ 12,472' W/775 Sacks

12,130 - 12,399' CAOF 4690 MCFGPD FTP 1965#

SI Gas Well

DST 11,910 - 12,004' Packer failed

DST 11,875 - 12,004' Open 1 Hr. 5 Min. Rec. 60' DM

60 Min. ISIP 1260# FP 903-903# 60 Min. FSIP 1035#

DST 12,175 - 12,225' Open 1 Hr. 32 Min. GTS 28 Min. @ TSTM

Rec. 1900' WB + 90' SGCM 30 Min. ISIP 4520#

FP 820-820# 30 Min. FSIP 3060#

DST 12,370 - 12,421' Open 1 Hr. Used 2000' WB

GTS 3 Min. WBTS 7 Min. Flowed 9800 MCF + 10.5 Bbls. dist. in

40 Min. Rec. 90' O&G below sub.

60 Min ISIP 5315# FP 2445-2534# 90 Min FSIP 5230#

Perf. 36/12,130 - 12,148', 8/12,158 - 12,160', 20/12,354 - 12,364',
40/12,374 - 12,394', 4/12,397 - 12,399' Natural