

CASE 3694: Application of MALLARD
PETROLEUM INC. for unorthodox gas
well location, Lea County, N.M.

Case No.

3694

Application, Transcript,
Small Exhibits, Etc.

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

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

P. O. BOX 2088
SANTA FE

December 1, 1967

Mr. Clarence Hinkle
Hinkle, Bondurant & Christy
Attorneys at Law
Post Office Box 10
Roswell, New Mexico 88201

Re: Case No. 3694
Order No. R-3349
Applicant: MALLARD PETROLEUM INC.

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.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other _____

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3694
Order No. R-3349

APPLICATION OF MALLARD PETROLEUM, INC.,
FOR AN UNORTHODOX GAS WELL LOCATION,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 29, 1967,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 1st day of December, 1967, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) That the applicant, Mallard Petroleum, Inc., seeks
approval of an unorthodox gas well location in the North Osudo-
Morrow Gas Pool for its Alves Well No. 1, located 660 feet from
the South line and 990 feet from the East line of Section 6,
Township 20 South, Range 36 East, NMPM, Lea County, New Mexico.

(3) That the subject well was drilled as a wildcat oil
well at a standard location to test the Morrow formation but
was productive of gas in the Morrow formation.

(4) That approval of the subject application will prevent
the drilling of unnecessary wells and will otherwise prevent waste
and protect correlative rights.

-2-

CASE No. 3694

Order No. R-3349

IT IS THEREFORE ORDERED:

(1) That the applicant, Mallard Petroleum, Inc., is hereby authorized an unorthodox gas well location in the North Osudo-Morrow Gas Pool for its Alves Well No. 1, located 660 feet from the South line and 990 feet from the East line of Section 6, Township 20 South, Range 36 East, NMPM, Lea County, New Mexico.


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

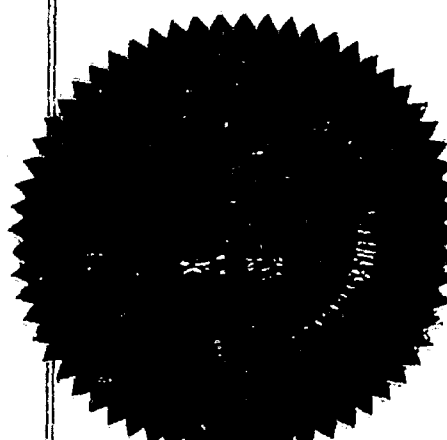
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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



esr/

3694

Heard 11-29-67

Rec. 11-30-67

1. Grant Mallard Pet. on N S L
for their Alnes #1 660/S, 920/E
6-205-36E, Ho. O sands - Monon Gas
Pool.

2. All was drilling as a W.C.
when the Ho. O sands Rules went into
effect. 8-67.

Thos. W. [Signature]

Docket No. 36-67

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 29, 1967

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 3689: Application of Sunray DX Oil Company for a dual completion and salt water disposal, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Navajo Table Mesa Well No. 2, located in Unit O of Section 27, Township 28 North, Range 17 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from the Table Mesa-Pennsylvanian "C" Oil Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the Organ Rock formation through perforations in said intermediate casing from approximately 5505 feet to 5525 feet.
- CASE 3690: Application of Roger C. Hanks, Ltd., for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Bar-U Pennsylvanian Pool, Lea County, New Mexico, including a provision for 160-acre spacing units and the establishment of 80-acre allowables for said 160-acre units.
- CASE 3691: Application of Roger C. Hanks, Ltd., for salt water disposal, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Bough "C" zone of the Pennsylvanian formation adjacent to the Bar-U Pennsylvanian Pool in its Tidewater State Well No. 1 located in Unit H of Section 31, Township 8 South, Range 33 East, Chaves County, New Mexico.
- CASE 3692: Application of Skelly Oil Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the expansion of its Lovington Paddock Unit Waterflood Project, Lovington Paddock Pool, by the conversion to water injection of seven additional wells located in Sections 25 and 35, Township 16 South, Range 36 East; Section 30, Township 16 South, Range 37 East; Sections 1 and 12, Township 17 South, Range 36 East; and Section 6, Township 17 South, Range 37 East, Lea County, New Mexico.
- CASE 3693: Application of Atlantic Richfield Company for an exception to Order No. R-3221, Lea County, New Mexico. Applicant, in the above-styled cause, on its own behalf and as operator of the Denton Salt Water Disposal System, seeks an exception to the provision of Paragraph (6) of Commission Order No. R-3221 which requires that certain unlined pits used for the disposal of produced salt water be filled, leveled, and compacted. Applicant proposes that said pits be left open in the Denton Field, Lea County, New Mexico, to permit their use for temporary emergency storage of produced water in connection with individual tank batteries connected to the Denton Salt Water Disposal System operated by Atlantic Richfield Company.

CASE 3694: Application of Mallard Petroleum Inc., for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its Alves Well No. 1, located 660 feet from the South line and 990 feet from the East line of Section 6, Township 20 South, Range 36 East, Lea County, New Mexico, said well being completed as an apparent extension of the North Osudo-Morrow Gas Pool.

CASE 3695: Application of Tenneco Oil Company for Special Pool Rules, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Hospah Upper Sand Oil Pool and the South Hospah Lower Sand Oil Pool, McKinley County, New Mexico, to provide that wells drilled in said pools could be located anywhere on the 40-acre unit except that no well could be located closer than 330 feet to the outer boundary of the lease nor closer than 200 feet to another well producing from the same pool. Applicant further proposes that any existing well not located in accordance with the above requirements be granted an exception to said requirements.



CONTINENTAL OIL COMPANY

P. O. Box 460

HOBBS, NEW MEXICO 88240

November 10, 1967

LPT put in case file
PRODUCTION DEPARTMENT
HOBBS DIVISION
L. P. THOMPSON
Division Manager
G. C. JAMIESON
Assistant Division Manager

1001 NORTH TURNER
TELEPHONE 393-4141

*Case
3694*

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

NOV 15 1967

Gentlemen:

The undersigned, being an offset operator, has been duly informed by Mallard Petroleum, Inc. of their request for an exception to Rule 4 of the field rules for the North Osudo-Morrow Gas Pool for their Alves No. 1 well. This well, located 660' FSL and 990' FEL of Section 6, T20S, R36E, Lea County, New Mexico, has been completed as a Morrow gas well.

This is to advise that the undersigned hereby waives notice and hearing to the granting of an exception to Rule 4 of the North Osudo-Morrow Gas Pool Rules for Mallard's Alves No. 1 well.

Yours very truly,

LPT-JS

DOCKET MAILED

Date 11-16-67

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Case 36 94

LEGAL DIVISION
PHONE 827-2741

November 3, 1967

C
O
P
Y
Mallard Petroleum, Inc. DOCKET MAILED
1206 V & J Tower
Midland, Texas 79701 Date 11-16-67

Attention: Mr. Homer Olsen, Jr.

Re: Request for Administrative Approval
of Unorthodox Location - Mallard
Petroleum, Inc., Alves No. 1 Well,
North Osudo-Morrow Gas Pool
Lea County, New Mexico

Gentlemen:

A case has been docketed by the Commission for its Regular Hearing, November 15, 1967, to extend the North Osudo-Morrow Gas Pool to include all of Sections 6 and 7 and the N/2 of Section 18, Township 20 South, Range 36 East, NMPM, Lea County, New Mexico.

However, neither Rule 5 of the Special Rules and Regulations governing the North Osudo-Morrow Gas Pool nor Rule 104 B I (b) of the General Rules and Regulations of the Commission permit administrative approval of an unorthodox location in this instance. Accordingly, your request is being set for hearing before an examiner on November 29, 1967.

If the above is not satisfactory, please notify the Commission.

Very truly yours,

GEORGE M. HATCH
Attorney

GMH/ear

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Gentlemen:

The undersigned, being an offset operator, has been duly informed by Mallard Petroleum, Inc. of their request for an exception to Rule 4 of the field rules for the North Osudo-Morrow Gas Pool for their Alves No. 1 well. This well, located 660' FSL and 990' FEL of Section 6, T-20-S, R-36-E, Lea County, New Mexico, has been completed as a Morrow gas well.

This is to advise that the undersigned hereby waives any and all objections to the granting of an exception to Rule 4 of the North Osudo-Morrow Gas Pool Rules for Mallard's Alves No. 1 well.

Executed this 9th day of November 1967.

SHELL OIL COMPANY
Company

By: ORIGINAL SIGNED
By J. E. R. STEELER J.E.R. Sheeler
Division Production Manager

[Handwritten signature]

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Gentlemen:

The undersigned, being an offset operator, has been duly informed by Mallard Petroleum, Inc. of their request for an exception to Rule 4 of the field rules for the North Osudo-Morrow Gas Pool for their Alves No. 1 well. This well, located 660' FSL and 990' FEL of Section 6, T-20-S, R-36-E, Lea County, New Mexico, has been completed as a Morrow gas well.

This is to advise that the undersigned hereby waives any and all objections to the granting of an exception to Rule 4 of the North Osudo-Morrow Gas Pool Rules for Mallard's Alves No. 1 well.

Executed this 6 day of NOV 1967.

Pan American Ref. Corp.
Company

By: D. L. Ray ghj

734

November 10, 1967

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Gentlemen:

The undersigned, being an offset operator, has been duly informed by Mallard Petroleum, Inc. of their request for an exception to Rule 4 of the field rules for the North Osudo-Morrow Gas Pool for their Alves No. 1 well. This well, located 660' FSL and 990' FEL of Section 6, T20S, R36E, Lea County, New Mexico, has been completed as a Morrow gas well.

This is to advise that the undersigned hereby waives notice and hearing to the granting of an exception to Rule 4 of the North Osudo-Morrow Gas Pool Rules for Mallard's Alves No. 1 well.

Yours very truly,

SIGNED: L. P. THOMPSON

LPT-JS

1. well projected as a wildcat oil well
660 from south and 990 from east lines 9 Sec 6.
2. well is a gas well - and there would
appear to require a hearing for the above
location - Rule 104 B I (b) second
paragraph -
3. would also need ^(a hearing for a) ~~app~~ non-standard
production unit if applicant wants to
dedicate 640 acres -
4. North Ouedo-Marrow is to be extended
on Nov. Regular -
(a) This would allow for 640 dedication
but
(b) would not allow adm. approval
for the location?

MALLARD PETROLEUM, INC.

1206 V & J TOWER

MIDLAND, TEXAS 79701

November 1, 1967

Nov 2 PM 1 38

Area Code 915
PHONE MU 2-8217

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Case 3694
RE: Request for Administrative Approval
of Unorthodox Location - Mallard
Petroleum, Inc., Alves No. 1 Well,
North Osudo-Morrow Gas Pool
Lea County, New Mexico

Gentlemen:

Mallard Petroleum, Inc. respectfully requests administrative approval for an exception to Rule 4 of the North Osudo-Morrow Gas Field Rules, for its Alves No. 1 Well. The Alves No. 1 Well, located 660' FSL and 990' FEL of Section 6, T-20-S, R-36-E, Lea County, New Mexico, is a recent Morrow gas completion.

Mallard's Alves No. 1 Well was drilled as a wildcat and was drilling above Morrow depth at the time field rules were adopted for the North Osudo-Morrow Gas Pool in August 1967. The well was drilled as a wildcat due to its location midway between Morrow oil production to the northwest (Shell Record No. 2G 35-T-19-S, R-35-E) and Morrow gas production to the southeast (Hamon Amerada-Federal No. 1 N 17 T-20-S, R-36-E.)

The attached plat shows the location of Mallard's Alves No. 1 with respect to the nearby Morrow oil and gas production mentioned above. The 640 acres to be assigned to the No. 1 Alves is outlined in red. The Morrow oil and gas producers are outlined in purple and blue respectively. As can be seen on the plat, only one of the Morrow gas producers would comply with the requirement of Rule 4 of the North Osudo-Morrow Gas Pool specifying locations no nearer than 1650' from section lines.

The pressure data available to Mallard at this time indicates a reasonable chance that the Morrow section open to the Alves No. 1 Well has been drained to a limited degree. The original bottom-hole pressure in Mallard's Alves No. 1 Well was 6450 psi, or 265 psi lower than the original pressure in Hamon's State E-8913 No. 1 with pressure compared at the same datum. This indication of drainage leads us to believe the Alves No. 1 should be placed in the North Osudo-Morrow Gas Pool.

Mr. Porter

- 2

The names and addresses of the offset operators are attached. These operators were notified of our request for an exception to Rule 4 of the North Osudomorrow Gas Pool rules on November 1, 1967. Waivers covering our request for exception to Rule 4 were requested from the offset operators on November 1, 1967.

Due to the likelihood of drainage and in order to protect our correlative rights, Mallard respectfully requests your early approval of the unorthodox location of the Alves No. 1 Well with respect to Rule 4 of the North Osudomorrow Gas Pool rules.

If we can provide any additional data, please advise.

Yours very truly,

MALLARD PETROLEUM, INC.

Homer Olsen Jr.

Homer Olsen, Jr.
Petroleum Engineer

HO/rr
Attachments

OFFSET OPERATORS:

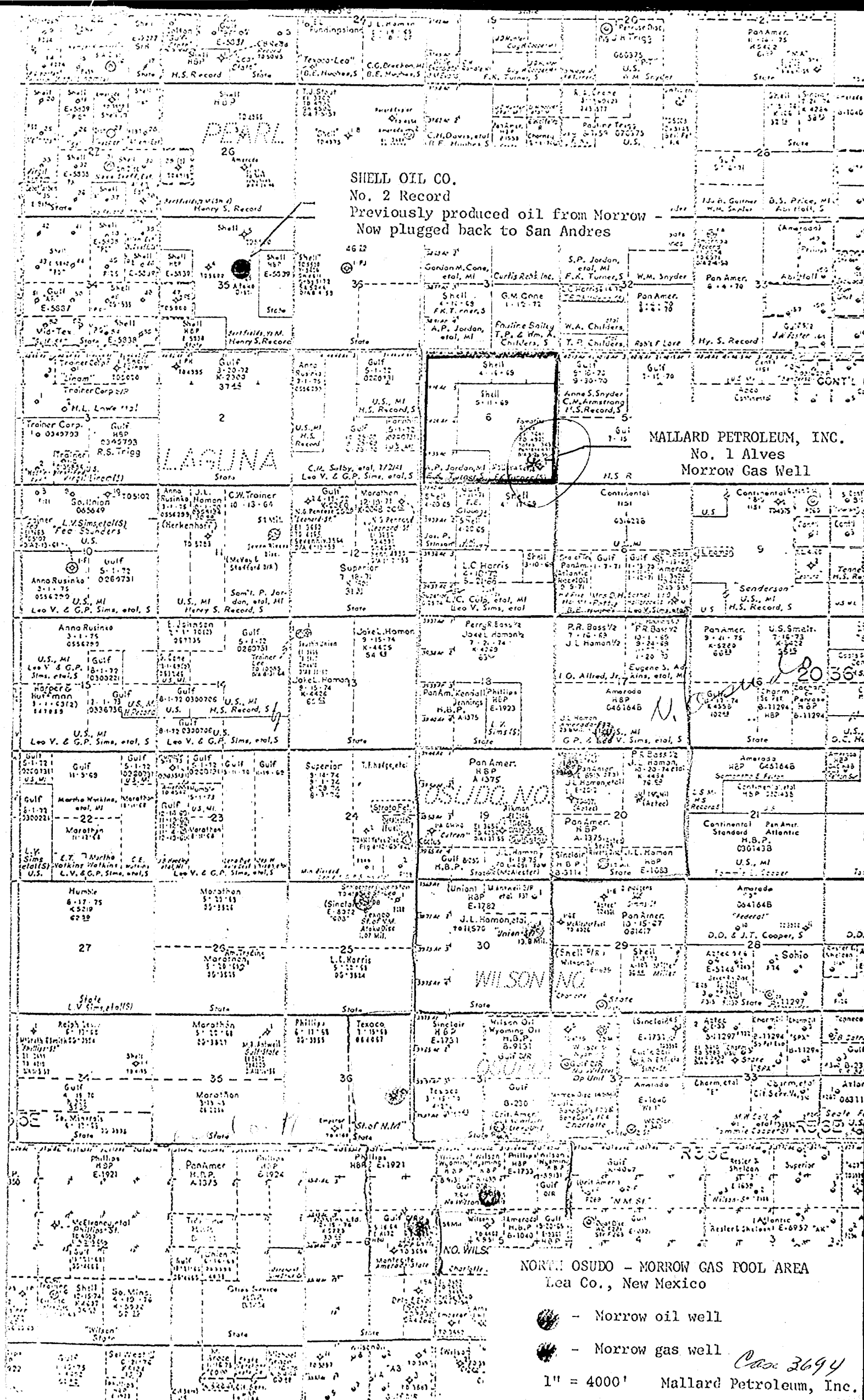
Gulf Oil Corporation
Petroleum Bldg., Box 1938
Roswell, New Mexico 88201

Shell Oil Company
Box 1810
Midland, Texas 79701

Continental Oil Company
Permian Bldg., Box 431
Midland, Texas 79701

Marathon Oil Company
Midland National Bank Bldg.
Box 552
Midland, Texas 79701

Pan American Petroleum Corporation
Oil & Gas Bldg.
Box 1410
Ft. Worth, Texas 76100



SHELL OIL CO.
No. 2 Record
Previously produced oil from Morrow -
Now plugged back to San Andres

MALLARD PETROLEUM, INC.
No. 1 Alives
Morrow Gas Well

NORTH OSUDA - MORROW GAS POOL AREA
Lea Co., New Mexico

- Morrow oil well

- Morrow gas well

Case 2694
1" = 4000'
Mallard Petroleum, Inc.

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Gentlemen:

The undersigned, being an offset operator, has been duly informed by Mallard Petroleum, Inc. of their request for an exception to Rule 4 of the field rules for the North Osudo-Morrow Gas Pool for their Alves No. 1 well. This well, located 660' FSL and 990' FEL of Section 6, T-20-S, R-36-E, Lea County, New Mexico, has been completed as a Morrow gas well.

This is to advise that the undersigned hereby waives any and all objections to the granting of an exception to Rule 4 of the North Osudo-Morrow Gas Pool Rules for Mallard's Alves No. 1 well.

Executed this 6 day of NOV 1967.

MAIN OFFICE

'67 Nov 7 AM 8 40

Pan American Ref. Corp.
Company

By: D. L. Ray ghr

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Gentlemen:

The undersigned, being an offset operator, has been duly informed by Mallard Petroleum, Inc. of their request for an exception to Rule 4 of the field rules for the North Osudo-Morrow Gas Pool for their Alves No. 1 well. This well, located 660' FSL and 990' FEL of Section 6, T-20-S, R-36-E, Lea County, New Mexico, has been completed as a Morrow gas well.

This is to advise that the undersigned hereby waives any and all objections to the granting of an exception to Rule 4 of the North Osudo-Morrow Gas Pool Rules for Mallard's Alves No. 1 well.

Executed this 9th day of November 1967

67 Nov 13 AM 8 20

SHELL OIL COMPANY
Company

By:

 J.E.R. Sheeler
Division Production Manager

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 29, 1967

EXAMINER HEARING

IN THE MATTER OF:)
)
)

Application of Mallard Petroleum)
Inc., for an unorthodox gas well)
location, Lea County, New Mexico.)
)

Case 3694

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3694

MR. HATCH: Case 3694, Application of Mallard Petroleum Inc. for an unorthodox gas well location, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant & Christy, representing Mallard Petroleum Inc. We have one witness, Mr. Homer Olsen, Jr. We have three exhibits. I would like to have Mr. Olsen sworn.

(Witness sworn)

(Whereupon, Exhibits 1, 2, and 3 marked for identification).

H O M E R O L S E N, J R., called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, your address, and by whom you are employed.

A Homer Olsen, Jr., Midland, Texas, employed as a Petroleum Engineer by Mallard Petroleum Inc.

Q Have you previously testified before the commission?

A No, sir, I have not.

Q State briefly your educational background and qualifications.

A I have a degree in petroleum engineering Bachelor of Science from the University of Texas, obtained in 1957. After graduation, I worked as a Reservoir Engineer for what is now, Atlantic Rich Field in Midland, Texas, until March of 1965, when I entered Mallard's employment and I am now a Petroleum Engineer for Mallard.

Q Are you familiar with oil and gas operations in New Mexico?

A Yes, sir.

Q Have you done any particular work in New Mexico?

A Yes, I have.

Q Are you familiar with the North Osudo Morrow Gas Field area?

A Yes, sir.

Q Have you made a study of that area?

A Yes, sir, I have.

Q Of all the wells that have been drilled in that area?

A Yes, sir.

Q Are you familiar with the application of Mallard Petroleum Inc. in this case?

A Yes, I am.

Q What is Mallard seeking to do by this application?

A Mallard is seeking approval for unorthodox location for its Alves No. 1 well, with respect to gas, in the North Osudo Morrow Gas Field. This well is located in Section 6, 660 from the south and 990 from the east of Section 6, 20 South, 36 East.

Q Have you prepared or has there been prepared under your direction certain exhibits to be entered in this case?

A Yes.

Q Refer to your Exhibit No. 1 and explain what it is and what it shows.

A All right, sir. Exhibit No. 1 is an area map of the North Osudo Morrow Gas Field, and that area, or acreage, included in the North Osudo Morrow Gas Field, is outlined in red. The gas wells are shown, circled and colored in yellow. Mallard's acreage assigned to the well in question, the Alves No. 1, is outlined in yellow, being Section 6 of 20, 36, there is one well up in Section 35, of 19, 35, colored red. It was a Morrow oil well. It is now completed in the San Andres.

Q When did Mallard start drilling its well located in Section 6, 20, 36?

A Mallard started this well on July 22, of 1967. It was completed on October 15, 1967.

Q As a well capable of producing gas in paying quantities?

A Yes, it was completed as a Morrow gas well, perforations 12,100 to 12,258. The calculated openflow potential was 2.8 million cubic feet per day with approximately 100 barrels condensate per million cubic feet of gas.

Q At the time this well was commenced, what were the boundaries of the North Osudo Morrow Gas Field?

A At the time this well was commenced, the boundary, the nearest boundary would have been the north line of Section 17, or our well was located in excess of one mile from the nearest boundary of the North Osudo Morrow Gas Field.

Q Is it your understanding that pursuant to hearing which was held, I believe, on November 15th, the boundaries of the North Osudo Morrow Gas Field have been extended and are now as shown in red on Exhibit No. 17?

A Yes, sir, that is my understanding.

Q Well, what is the location of your well in Section 6, that is by feet, from the south and east lines?

A It is 660 from the south line and 990 from the east line of Section 6.

Q Do you know why it was located at this particular point?

A Yes, sir, I do.

Q Why?

A Well, if we could refer to Exhibit No. 2?

Q Okay.

A Exhibit No. 2 is an Isopach of the net pay thickness of the Morrow sand, here, again, the gas wells are shown colored in yellow and the one oil well that did produce from the Morrow is shown colored red, up to the northwest. As you can see, as indicated by the red lines radiating from Mallard's Alves No. 1 well, southeast to the nearest gas well and northwest, the nearest oil well, that we were located approximately midway between Morrow oil production and Morrow gas production. It was decided that the location as drilled was the optimum location with the information available. It was drilled as a wildcat and as an oil location.

Q Projected as an oil well?

A Projected as an oil well, yes, sir.

Q Was this Isopach map prepared prior to your drilling the well?

A This particular Isopach map was not, it was prepared on the 15th; however, the only thing to change was the net thickness of our well. We have slightly less net pay; we had projected about 30 to 35 feet.

Q So after the drilling of your well, you had substantially the same thing you had originally projected?

A Yes, sir, that's correct.

Q Now, refer to your Exhibit No. 3 and explain what that is and what it shows.

A Exhibit No. 3 shows the initial bottom hole pressure all calculated to the same datum which is 7,800 sub sea on the four gas wells that are in the North Osudo Morrow Gas Field. This is plotted versus time of completion. As you can see, the initial pressures on the three wells to the south to be the Hammond State E No. 1, the Hammond Union State and the Hammond Amarodo Federal all had original pressures substantially higher than found in Mallard's Alves No. 1 well. In my opinion, this shows that the area being drained or in communication with Mallard's well, has been drained to a limited extent by the production to the south and that we are in communication with this reservoir and part of the same reservoir.

Q That is also reflected by your Exhibit No. 2?

A Yes, sir.

Q On account of what you have just stated, is it your opinion, then, that one well will effectively and efficiently drain as much as 640 acres?

A Yes, sir, I think that Exhibit 3 shows pretty

conclusive evidence of this in the fact that a well located over two miles away has been drained. It is also shown by the Isopach that we feel that all of the 640 acres assigned to our well is productive.

Q Did you give noitice to all of the offset operators of your application in this case?

A Yes, I did.

Q What operators did you give notice to?

A Those operators were Pan American, Shell, Continental, Gulf, Marathon.

Q Have you received any response from those operators?

A Yes, I have. We have waivers from Pan American, Shell and Continental. We had an acknowledgement from Gulf that they would not furnish a waiver nor would they oppose. We have had no response from Marathon other than a phone call which they indicated they would furnish a waiver and perhaps they have furnished it directly to the commission.

MR. HINKLE: In that connection, Mr. Examiner, all these waivers I notice have been addressed to the commission, Mr. L. Porter, and we have copies here but I won't offer them in evidence if your records shows that they are here.

MR. HATCH: I don't think that we have all those that he named off.

MR. HINKLE: Here is Shell, Pan American, this is Continental. Do you have those three?

MR. HATCH: We have those three.

Q (By Mr. Hinkle) Now, Marathon was verbal communication to you?

A Right.

Q Have you produced any gas up to this time from your well in Section 6?

A No, sir, none other than for the openflow potential test.

Q Do you have any contract to sell the gas?

A Yes, we have executed a contract with New Mexico Electric Service Company as purchaser and Llano, Incorporated as transporter.

Q Are they anxious for delivery of the gas as quickly as possible?

A Yes, sir, they are very anxious and the well was connected on November 2nd.

Q And, why haven't you been delivering gas to them?

A We are waiting on the commission approval of our unorthodox location.

MR. HINKLE: I would like to offer in evidence Exhibit 1, 2, and 3.

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

(Whereupon, Applicant's Exhibits 1 through 3 were offered and admitted in evidence)

MR. HINKLE: I believe that is our case.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Olsen, do you have any evidence that would show that the entire 640 acres, or Section 6, is productive of gas?

A No, sir. Our evidence is our interpretation of the sand trend which is shown on Exhibit 2 of the Isopach, showing that all of Section 6 is productive. No evidence other than that.

Q On this same trend, I guess you would call it, it looks like about three structures here, or four, the only production you have to the north is in the Morrow, is that correct?

A That's correct, yes. That well has now been plugged back to the San Andres.

Q It must not have been very good production?

A It was not real good production, no, sir. It produced 60 some odd thousand barrels.

Q Almost all of these -- I say all of them, the three

wells are producing higher on the contours than your well, are they not?

A Sir, this is not a structure map, it is an Isopach map showing our opinion of the net pay thickness.

Q Net pay, I'm sorry. How about the structure? Do you have anything that shows structure?

A Yes, sir, I have a structure map. This is contoured on what we call the Morrow marker. Here are the three wells that are about 600 feet low, the gas wells however, were about 450 feet high to the oil production.

Q This was on the oil well?

A Yes, sir.

Q Your well, then, is the highest well on the structure so far?

A No, sir, we are low to these three wells.

Q I see.

A But we are high to the oil production.

Q And it is your opinion that the entire Section 6 is productive of gas in the Morrow?

A Yes, it is.

MR. HINKLE: Would you like to have that identified and introduced, too?

(Whereupon, Applicant's Exhibit 4 marked for

identification)

REDIRECT EXAMINATION

BY MR. HINKLE:

Q Is the North Osudo pool or area a structure type production or is it stratigraphic type production or what type production is it?

A It is stratigraphic type production.

Q Does structure cut too much figure as far as stratigraphic trap is concerned?

A No, not in this particular case. The Morrow sand is absent to the east and your production is found on this Morrow sand trend.

Q A lot depends on the porosity and permeability of the formation rather than structure, does it not?

A Yes, that is right.

Q Is that your opinion in this case?

A Yes. None of the wells that are presently producing in the North Osudo Morrow Gas Pool have found water production in the Morrow sand.

MR. UTZ: But at the time you were drilling the well, it was a legal location?

A Yes, sir.

MR. UTZ: Other questions?

MR. HINKLE: That's all we have. I will offer four in evidence.

MR. UTZ: Exhibit 4 will be entered into the record in this case.

(Whereupon, Applicant's Exhibit 4 was offered and admitted in evidence).

MR. HINKLE: He has called my attention to the fact that they are extremely anxious to go ahead and start running gas from this well and if the commission does see fit to make this exception, we would appreciate entering the order as quickly as possible so that they can go ahead and start running gas. They would like to do it by the first of December.

MR. UTZ: Is this the only thing that is holding up your being able to produce the well? Do you have your connection?

A Yes, sir, we have the connection.

MR. UTZ: I don't know whether I ever excused the witness or not. If I didn't, I will.

(Witness excused)

MR. UTZ: Other statements in this case? Case will be taken under advisement.

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, KAY EMBREE, 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 5th day of December, 1967.

Kay Embree
 Notary Public

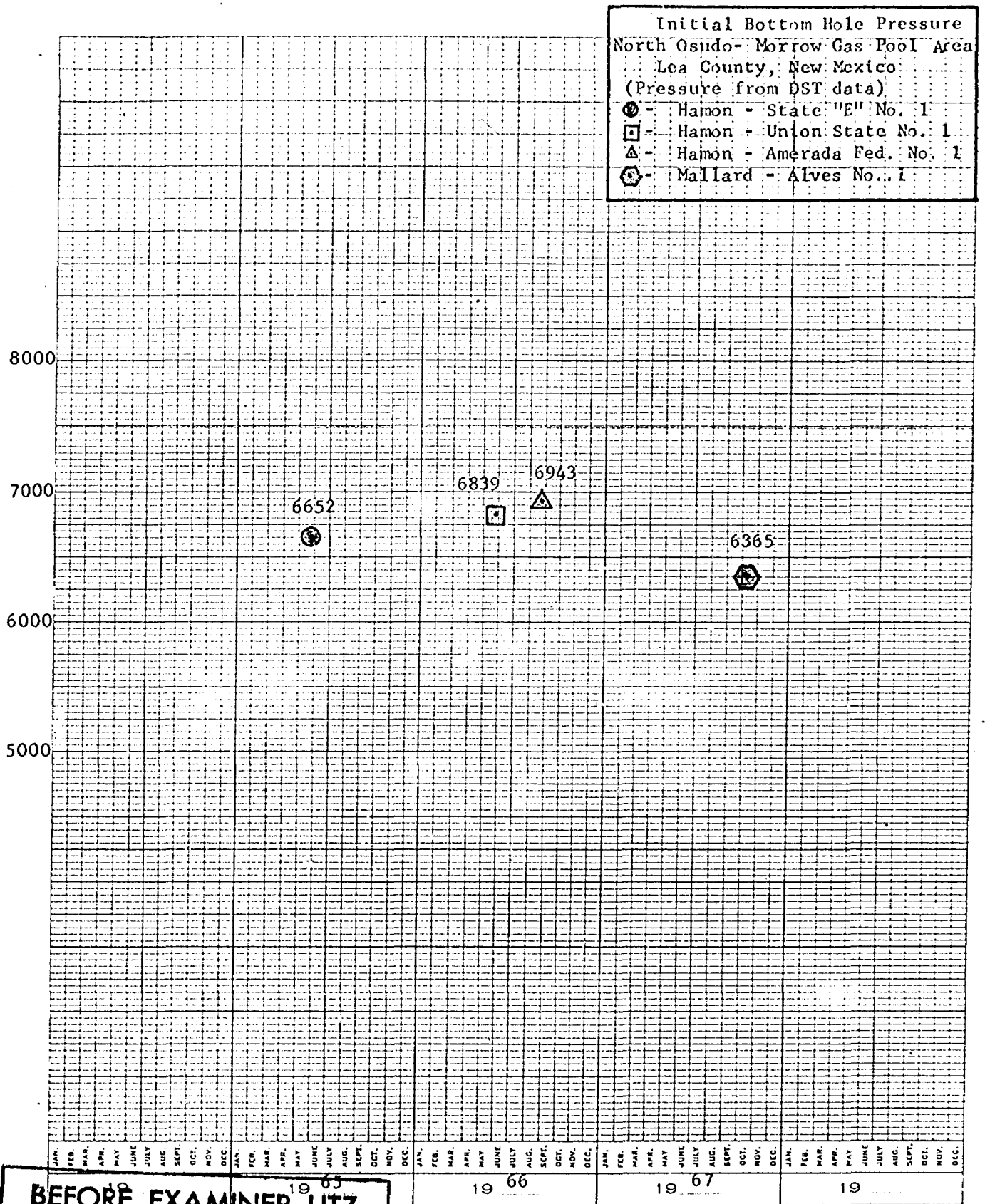
My Commission Expires:

November 13, 1971

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the hearing before the Commission on Case No. 3024,
 heard by me on December 29, 1967.

[Signature], Examiner
 New Mexico Oil Conservation Commission

Bottom Hole Pressure, PSIG
Datum = 7800' subsea



BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 3674