

CASE 4399: Application of PAN AM.
for downhole commingling, Lea
County, New Mexico.

Case Number

4399

Application
Transcripts.

Small Exhibits

ETC.

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

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 19, 1970

EXAMINER HEARING

IN THE MATTER OF:

Case No. 4399: Application of Pan
American Petroleum Corporation for
downhole commingling, Lea County,
New Mexico.

Case No. 4399

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. HATCH: This is the application of Pan American Corporation for downhole commingling, Lea County, New Mexico. The applicant seeks authority to commingle in the wellbore production from the Blinebry, Tubb and Drinkard Oil Pools in its Southland Royalty "A" Well No. 8 located in Unit 0 of Section 4, Township 21 South, Range 37 East, Lea County, New Mexico.

MR. BUELL: May it please the Commission, I am appearing for Pan American Petroleum Corporation. My name is Guy Buell and we have one witness, Mr. Pat Hosford.

(Witness, Pat Hosford was sworn.)

PAT HOSFORD,

the witness, having been first duly sworn upon his oath, according to law testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

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

A Patrick E. Hosford, Staff Engineer with Pan American Petroleum Corporation, Ft. Worth, Texas.

Q Mr. Hosford, you have testified at previous Commission hearings and your qualifications as a petroleum engineer are a matter of public record, are they not?

A Yes. They are.

Q Alright, Sir. Now, with reference to this particular

application, would you first look at what has been identified as Exhibit No. 1 -- what is that exhibit?

A Exhibit No. 1 is a map, color coded and showing a portion of the Blinebry, Tubb and Drinkard Pools.

Q Have you identified the well that is the subject matter of this hearing?

A The subject well, Pan American Southland Royalty "A" Well No. 8 has been identified by a red arrow. For purposes of identification, this well is located in Unit 0, being 660 feet from the south line and 1980 feet from the east line of Section 4, Township 21 South, Range 37 East.

Q What is the present completion status of this well?

A This well is presently a triple completion being oil productive in the Blinebry, Tubb and Drinkard Pools.

Q Alright, Sir, in that connection would you look now at what has been identified as Pan American Exhibit No. 2. What is that exhibit?

A Exhibit 2 is a wellbore sketch showing downhole completions as a triple completion. It shows the perforations of the Blinebry, Tubb and Drinkard. I would have called the Commissioner's attention to the lowermost perforation in the lowermost pool, being the Drinkard perforation 6649. This has an affect in governing or setting the maximum allowable possible under downhole commingling.

Q Do you happen to recall the number of the order that

authorized this triple?

A Yes, Sir. This is Order No. R-2465, dated April 18, 1963.

Q Alright, Sir, do you have any other comments on Exhibit No. 2?

A No, Sir. I don't.

Q I'd like to look at Exhibit No. 3. What is that exhibit?

A Exhibit No. 3 is the Commission form C-116 showing recent gas-oil ratio tests on all three producing horizons in the Pan American Southland Royalty "A" Well No. 8. For the purposes of the record I would like to read in the latest tests. The Blinebry pumped three barrels of oil and two barrels of water on a twenty-four hour test with a gas-oil ratio of 9,666. The Tubb flowed three barrels of oil and zero barrels of water on a twenty-four hour test with a gas-oil ratio of 49,666. The Drinkard pumped 6 barrels of oil and 2 barrels of water with a gas-oil ratio of 14,000.

Q Alright, Sir, we have had the opportunity to observe the performance of all three completions in this well, have we not?

A Yes, Sir.

Q In that connection would you look at what has been identified as our Exhibit No. 4. What is that exhibit?

A Exhibit No. 4 is a production decline curve for the

Blinebry Pool in Southland Royalty Well No. 8. It presents the producing history of this well from 1967 forward and does show the latest production record we have as of June, 1970. This particular well in the Blinebry is, as I mentioned in the last exhibit, is currently pumping 3 barrels of oil per day and the decline curve does reflect this. The Blinebry in this particular well initially, potential pumping, 24 barrels of oil per day and 7 barrels of water. Cumulative production as of June 1st, 1970 has been 16,519 barrels of oil. This is in the Blinebry.

Q Alright, Sir, let's look now at the performance of the Tubb completion in this well. I believe that has been identified as Exhibit No. 5. Would you comment on it, please?

A Yes, Sir. Exhibit No. 5 is a similar decline curve for the Tubb Pool in Southland Royalty Well No. 8. This does show that well is currently producing approximately 2 barrels of oil per day. The test we have on file on C-116 does reflect a 3 barrels of oil per day test. The production of this well seems to vary between 2 and 3 barrels per day. The Tubb zone in this well initially completed flowing 114 barrels of oil per day with no water. Cumulative production as of June 1st, 1970 has been 12,424 barrels of oil.

Q Alright, Sir. Now, the performance of the Drinkard completion -- that has been identified as Exhibit No. 7. Would you comment briefly on that exhibit, please?

A Exhibit 6, I believe.

Q Exhibit 6. Pardon me. You are right.

A Yes. Exhibit No. 6 is a similar decline curve for the Drinkard Pool in Southland Royalty "A" Well No. 8. It reflects an oil production capacity on the order of 6 barrels per day. The test on file does reflect a 6 barrels per day test. The Drinkard initially potential flowing, 42 barrels of oil and 0 barrels of water. Cumulative production as of June 1st, 1970 has been 35,136 barrels of oil.

Q Alright, Sir. Look now at Exhibit No. 7. What is that exhibit, Mr. Hosford?

A Exhibit No. 7 is a Commission form C-124 which presents the latest bottom hole pressure information available for the Southland Royalty "A" Well No. 8. The Blinebry pressure recorded at datum was 575 pounds. This is a datum of minus 2,400 feet. The Tubb formation pressure was 442 pounds at a datum of minus 2,700 feet and the Drinkard pressure was actually obtained on Southland Royalty "A" Well No. 3 since we could not get the pressure on this particular well due to packer, but the pressure on Southland Royalty "A" Well No. 3 was 594 pounds.

Q Is it an offset, immediate offset?

A Yes, Sir. It is, a nearby offset being one location west of Well No. 8.

Q Alright, Sir, do you have any other comments on the bottom hole pressure?

A No, Sir. I do not.

Q Alright. Have you prepared, more or less, a summary sheet to put some of this more pertinent all on one exhibit for the convenience of the Examiner?

A Yes. I have. Pan American Exhibit No. 8 does show the information contained on the Commission's form C-116 and C-124.

Q Do you have any comments to make on that exhibit?

A No, Sir, but I think that this exhibit is self-explanatory.

Q Now, turn to Exhibit No. 9. What is that?

A Exhibit No. 9 is a summary sheet showing the fluid characteristics, the gravity of the fluid being produced and the value of commingled production in this particular well in the three producing horizons. I might mention that production from the Blinebry, Tubb and Drinkard is currently being commingled on the surface under Commission authorization. The Blinebry produces a sweet crude having a gravity of 42.5 degrees API. The Tubb also is sweet crude -- 39.5 degrees API and the Drinkard, sweet crude with a gravity of 37.8 degrees API.

Looking at the value portion it is quite apparent that if these zones were not being surface commingled there would be no loss of value due to the porportion of production and the pricing and gravity of each of the crude oil producing horizons. The value, if they were not currently being com-

mingled, would be a total daily revenue of approximately \$39.30. Under commingled production the value would be \$39.48. This does reflect there would be no loss in value.

Q From the standpoint of commingling in the wellbore, do you see any incompatibility with any of the fluid that was being produced in any of the three zones that would be harmful to the well?

A No, Sir. I can see no incompatibility between the crude oil nor the water themselves.

Q By commingling, will we be able to produce this well to a lower economic abandonment?

A Yes, Sir -- much lower. I would assume an economic limit of approximately 3 barrels per day versus a combined economic limit on the order of 9 barrels per day. We are approaching this on two of the zones right now.

Q So that approval of this application will serve conservation from a standpoint of correlative rights?

A Yes.

Q Is the ownership identical in all three pools?

A Yes, Sir. It is.

Q Has the Commission approved other commingling in this area?

A Yes, Sir. There has been commingling approved on the same particular lease for dual zone producing.

Q Do you have anything else you care to add, Mr.

Hosford?

A No, Sir. I do not.

MR. BUELL: May it please the Commissioner, that is all we have by way of direct evidence. I would like to formally offer into evidence Exhibits 1 through 9, inclusive.

MR. NUTTER: 1 through 9 will be admitted in evidence.

DIRECT EXAMINATION

BY MR. NUTTER:

Q Mr. Hosford, Your latest test indicates twenty-five percent of the production comes from the Blinebry; twenty-five percent from the Tubb and approximately fifty percent from the Drinkard.

A Yes, Sir.

Q You have got your decline curves here and the slope on the decline curve appears to be fairly uniform among the three zones. Would it be appropriate in the future to allocate production to each of the three zones in accordance with existing percentages of total production coming from each?

A Yes, Sir.

Q Twenty-five, twenty-five and fifty?

A Yes, Sir. I do.

MR. NUTTER: Thank you.

Any further questions of Mr. Hosford?

You may be excused.

Do you have anything further, Mr. Buell?

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MR. BUELL: No, Sir. I do not.

MR. NUTTER: Anyone have anything in Case No. 4399?

We will take the case under advisement.

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, Peter A. Lumia, Court Reporter, 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.

Peter A. Lumia
Peter A. Lumia, C.S.R.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Executive Hearing of Case No. 4399
heard by me on 8/19, 1970
[Signature], Examiner
New Mexico Oil Conservation Commission

I N D E X

<u>WITNESS:</u>	<u>PAGE</u>
PAT HOSFORD (PATRICK E. HOSFORD)	
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EXHIBITS

MARKED

OFFERED AND
ADMITTED

Applicant's Exhibits 1 through 9	9
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OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

07801

GOVERNOR
DAVID F. CARGO
CHAIRMAN

**LAND COMMISSIONER
ALEX J. ARMijo
MEMBER**

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

August 25, 1970

Mr. Guy Buell
Pan American Petroleum Corporation
Post Office Box 1410
Fort Worth, Texas 76101

Re: Case No. 4399
Order No. R-4023
Applicant:
Pan American Petroleum Corp.

Dear Sir:

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

Very truly yours,

G. L. Carter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

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. 4399
Order No. R-4023

APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR DOWN-HOLE COMMINGLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:30 a.m. on August 19, 1970,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of August, 1970, 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, Pan American Petroleum Corporation,
is the owner and operator of the Southland Royalty "A" Well No.
8, located in Unit W of Section 4, Township 21 South, Range 37
East, NMPM, Lea County, New Mexico.

(3) That pursuant to authority granted by Order No. R-2465,
the subject well was completed by the applicant as a triple
completion (conventional) to produce oil from the Blinbry, Tubb,
and Drinkard Pools through parallel strings of tubing, with
separation of zones by packers set at approximately 6079 and
6400 feet.

(4) That each of said zones is now capable of only low
marginal production.

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CASE No. 4399
Order No. R-4023

(5) That the applicant now proposes to remove said packers and complete the well in such a manner as to produce the low marginal oil production from the subject pools through a single string of tubing, commingling in the well-bore the production from each of the subject zones.

(6) That the proposed commingling in the subject well of the Blinebry, Tubb, and Drinkard zones may substantially extend the productive lives of said zones in the well.

(7) That the reservoir characteristics of the Blinebry, Tubb, and Drinkard zones in the subject well are such that underground waste would not be caused by the proposed commingling in the well-bore.

(8) That the proposed commingling may result in the recovery of additional oil from each of the commingled zones in the subject well, thereby preventing waste, and will not violate correlative rights.

(9) That the mechanics of the proposed completion are feasible and in accord with good conservation practices.

(10) That in order to allocate the commingled production to each of the commingled zones in the subject well, approximately 25% of the future allowable and production should be attributed to the Blinebry zone, 25% to the Tubb zone, and 50% to the Drinkard zone.

(11) That approval of the subject application will prevent waste and protect correlative rights.

(12) That Order No. R-2465 should be superseded.

IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, is hereby authorized to complete its Southland Royalty "A" Well No. 8, located in Unit W of Section 4, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to produce oil from the Blinebry, Tubb, and Drinkard Pools through a single string of tubing, commingling in the well-bore the production from each of said pools.

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CASE No. 4399

Order No. R-4023

(2) That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

(3) That approximately 25% of the future allowable and production shall be attributed to the Blinebry zone, approximately 25% to the Tubb zone, and approximately 50% to the Drinkard zone of the subject well until further order of the Commission.

(4) That the commingling in the well-bore authorized by this order shall continue only so long as the commingled production of the three zones does not exceed 40 barrels of oil per day nor 80 barrels of water per day.

(5) That the maximum amount of gas which may be produced daily from the commingled zones in the subject well shall be determined by multiplying 2,000 by the top unit allowable for the Blinebry Pool.

(6) That Order No. R-2465 is hereby superseded.

(7) 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

ALEX J. ARMijo, Member

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

esr/

ATWOOD, MALONE, MANN & COOTER
LAWYERS

P. O. DRAWER 700
SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO 88201
[505] 622-6221

August 17, 1970

JEFF D. ATWOOD [1883-1960]

CHARLES F. MALONE
RUSSELL D. MANN
PAUL A. COOTER
BOB F. TURNER
ROBERT A. JOHNSON
JOHN W. BASSETT

ROBERT E. SABIN
RUFUS E. THOMPSON

Mr. A. L. Porter, Jr., Director
Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87501

70 AUG 18 PM 1 05

Re: Examiner Hearing August 19, 1970

Dear Mr. Porter:

Please file our enclosed Entry of Appearance in Case No.
4399 for Pan American.

With regards.

Very truly yours,


Charles F. Malone

CFM:bc

Enc.

cc: Guy Buell, Esquire (w/Enc.)

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

70 AUG 18 PM 1 05


IN THE MATTER OF THE APPLICATION)
OF PAN AMERICAN PETROLEUM COR-)
PORATION FOR DOWNHOLE COMMINGL-)
ING, BLINBRY, TUBB AND DRINKARD)
OIL POOLS, LEA COUNTY, NEW MEXICO.)

Case No. 4399

ENTRY OF APPEARANCE

The undersigned, Atwood, Malone, Mann & Cooter of Roswell,
New Mexico, hereby enter their appearance herein for the Applicant, Pan
American Petroleum Corporation, with Guy Buell, Esquire, and Gordon
Ryan, Esquire, of Fort Worth, Texas.

ATWOOD, MALONE, MANN & COOTER

By 
Attorneys for Pan American
Petroleum Corporation
P. O. Drawer 700
Roswell, New Mexico 88201

Docket No. 19-70

DOCKET: REGULAR HEARING - WEDNESDAY - AUGUST 19, 1970

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

- ALLOWABLE:
- (1) Consideration of the oil allowable for September and October, 1970;
 - (2) Consideration of the allowable production of gas for September, 1970 from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, September, 1970.

THE FOLLOWING CASES WILL BE HEARD BEFORE DANIEL S. NUTTER, EXAMINER, OR ELVIS A. UTZ, ALTERNATE EXAMINER, IN THE OIL CONSERVATION COMMISSION CONFERENCE ROOM ON THE SECOND FLOOR OF SAID BUILDING AT 9:30 a.m.

CASE 4414: Southeastern New Mexico nomenclature case calling for an order for the creation and extension of certain pools in Lea, Chaves, and Eddy Counties, New Mexico:

- (a) Create a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Townsend-Morrow Gas Pool. The discovery well is the Avance Oil & Gas Company State ETA No. 2 located in Unit 1 of Section 8, Township 16 South, Range 35 East, NMFM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMFM
SECTION 8: SE/4

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

TOWNSHIP 9 SOUTH, RANGE 36 EAST, NMFM
SECTION 12: S/2

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

TOWNSHIP 13 SOUTH, RANGE 32 EAST, NMFM
SECTION 36: NW/4

- (d) Extend the Drinkard Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
SECTION 24: E/2 NE/4

- (e) Extend the EK Yates-Seven Rivers-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM
SECTION 19: SE/4
SECTION 20: SW/4

- (f) Extend the Hobbs-Blinedry Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 38 EAST, NMPM
SECTION 19: S/2

- (g) Extend the Indian Basin-Upper Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 23 EAST, NMPM
SECTION 21: N/2 and N/2 N/2 N/2 S/2

- (h) Extend the Paduca-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 25 SOUTH, RANGE 31 EAST, NMPM
SECTION 1: W/2
SECTION 12: W/2

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

TOWNSHIP 21 SOUTH, RANGE 25 EAST, NMPM
SECTION 3: Lots 1, 2, 7, 8, 9, 10,
15 and 16

- (j) Extend the Sulimar-Queen Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 15 SOUTH, RANGE 29 EAST, NMPM
SECTION 26: SW/4 NE/4

(k) Extend the Tres Papalotes-Pennsylvanian Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 34 EAST, NMPM
SECTION 33: NW/4

(l) Extend the Northwest Vacuum-Wolfcamp Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
SECTION 5: SW/4

CASE 4413: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to permit Stanley Leonard Jones dba Francisca Corporation and all other interested parties to appear and show cause why the Francisca Corporation Beeman Well No. 1 located 1980 feet from the South and West lines of Section 2, Township 24 South, Range 28 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 4172: (Reopened)

In the matter of Case No. 4172 being reopened pursuant to the provisions of Order No. R-3816, which order established 80-acre spacing units for the Northeast Lovington-Pennsylvanian Pool, Lea County, New Mexico. All interested parties may appear and show cause why the said pool should not be developed on 40-acre spacing units.

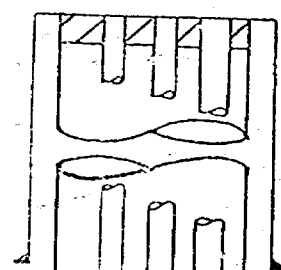
CASE 4399: Application of Pan American Petroleum Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle in the wellbore production from the Blinebry, Tubb, and Drinkard Oil Pools in its Southland Royalty "A" Well No. 8 located in Unit O of Section 4, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 4400: Application of David C. Collier for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico. Said exception would be for applicant's Southern Federal Lease in Units A, C, E, G, I, K, and M of Section 30, Township 19 South, Range 31 East, North Hackberry Yates-Seven Rivers Pool, Eddy County, New Mexico.

- CASE 4401: Application of Read and Stevens, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Queen, San Andres, Glorieta, and Delaware formations in the open-hole interval between the 8 5/8 inch casing shoe at 3998 feet and the top of the cement at 6109 feet in its Getty State "B.G." Well No. 1 located in Unit K of Section 12, Township 19 South, Range 34 East, Quail-Queen Pool, Lea County, New Mexico.
- CASE 4402: Application of Reserve Oil and Gas Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Cooper-Jal Unit Area comprising 2581 acres, more or less, of Federal and fee lands in Township 24 South, Ranges 36 and 37 East, Lea County, New Mexico.
- CASE 4403: Application of Reserve Oil and Gas Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by water injection through 26 wells into the Lower Seven-Rivers and Queen formations underlying its Cooper-Jal Unit Area, Langlie-Mattix Pool, Lea County, New Mexico.
- CASE 4404: Application of Reserve Oil and Gas Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by water injection through 23 wells into the Tansill, Yates, and Upper and Middle Seven-Rivers formations underlying its Cooper-Jal Unit Area, Jalmat Pool, Lea County, New Mexico.
- CASE 4405: Application of Reserve Oil and Gas Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the South Langlie-Jal Unit Area comprising 1080 acres, more or less, of fee lands in Township 25 South, Range 37 East, Lea County, New Mexico.
- CASE 4406: Application of Reserve Oil and Gas Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by water injection through 13 wells into the Seven Rivers and Queen formations underlying its South Langlie-Jal Unit Area, Langlie-Mattix Oil Pool, Lea County, New Mexico.
- CASE 4407: Application of Tenneco Oil Company for an unorthodox oil well location, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox Dakota oil well location 1980 feet from the South and East lines of Section 13, Township 17 North, Range 9 West, Hospah Field, McKinley County, New Mexico, said location being closer than 330 feet to an inner boundary line.

- CASE 4408: Application of Keohane and Westall for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicants' State Well No. 1, located in Unit D of Section 2, Township 19 South, Range 31 East, Shugart Pool, Eddy County, New Mexico.
- CASE 4409: Application of Anadarko Production Company for two waterflood expansions, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the expansion of its Federal Q Waterflood Project by the conversion to water injection of three additional wells in Units J, L, and P of Section 3, Township 17 South, Range 30 East, Square Lake Pool, Eddy County, New Mexico. Applicant further seeks the expansion of the Stallworth Oil and Gas Company Parke Waterflood Project by the conversion to water injection of one additional well in Unit H of said Section 3.
- CASE 4410: Application of Major, Giebel & Forster for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SE/4 of Section 28, Township 25 South, Range 37 East, Crosby-Devonian Pool, Lea County, New Mexico, said acreage to be dedicated to a well to be drilled in said quarter section. Also, to be considered will be the cost of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.
- CASE 4411: Application of Continental Oil Company for an exception to Rule 104 C I, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 104 C I of the Commission Rules and Regulations to permit the completion within 660 feet of another producing well in the same formation of its State H-35 Well No. 10 located 2030 feet from the North line and 1780 feet from the East line of Section 35, Township 17 South, Range 34 East, Vacuum Pool, Lea County, New Mexico.
- CASE 4412: Application of Continental Oil Company for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water into the Yates and Seven Rivers formations through two wells on its McCallister "A" lease in Section 24, Township 26 South, Range 35 East, Scarborough Yates-Seven Rivers Pool, Lea County, New Mexico.

Triple Completion



Triple Tubing Head

9 5/8" surface casing set at 1347 with 480 sacks reg. + 4% gel. followed by 100 sacks 50-50 posmix Incor. cement circulated

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

PANAMA EXHIBIT NO. 2

CASE NO. 4399

Top Cement 2500'

Blinebry Tubing - 2" O.D. B.T. (1.670" I.D.) landed at 5780'

Upper Zone
Blinebry Oil
(Pump)

Blinebry Perforations 5837'; 5865'; 5894'; 5955'
5984'

Tubb Tubing - 2" O.D. B.T. (1.670" I.D.) landed at 6079'

Packer - Otis type W.A. w/ twin flow tube at 6079'

Middle Zone
Tubb Oil
(Flow)

Tubb Perforations - 6229'-31'; 6235'-37'; 6239'-41';
6246'-48'; 6253'-55'; 6258'-60';
6271'-73'; 6277'-79'; 6285'-83';
6291'-93'; 6302'-04'; 6306'-08';
6310'-12'; 6319'-21'; 6325'-27'

Lower Zone
Drinkard
Zone
PERF 6658
to 6703
(Pump)

Drinkard Tubing - 2 3/8" O.D. FUE Landed at (1.995" I.D.) 6369'

Packer Otis type W.A. set at 6400'

Drinkard Perforations 6644'-49'; 6634'-38';
6628'-31'; 6621'-24'; 6617'-19';
Sand notched @ 6646'; 6637'; 6629'; 6622'
6618'

Cast Iron Bridge Plug SA 6658'

Drinkard Perfs. 6672-78 sq w/ 100 sx cmf.

7" oil string casing set at 6703' with 100 sacks Incor. + 40% diacel "D" followed by 400 sacks Incor. Neat.

Southland Royalty Co.
"A" No. 8

Triple Completion
Authorized
R 2463-2
8/18/63
G

**NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS**

C-116

Revised 1-1-65

Operator Pan American Petroleum Corporation				Pool Blinebry-Tubb-Drinkard				County Lea								
Address P. O. Box 68, Hobbs, New Mexico						TYPE OF TEST - (X)		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>				
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL.
		U	S	T	R							WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.	
Southland Royalty "A"	8 Blinebry	0	4	21	37	6-6-70	P	-	-		24	2 ✓	42.5	3 ✓	29	9,666 ✓
	8 Tubb					6-20-70	F	20/64	100		24	0 ✓	39.5	3 ✓	149	49,666 ✓
	8 Drinkard					6-30-70	P	-	-		24	2 ✓	37.8	6 ✓	84	14,000 ✓

BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
 PAN AM'S EXHIBIT NO. 3
 CASE NO. 4399

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

J. E. York
 (Signature)

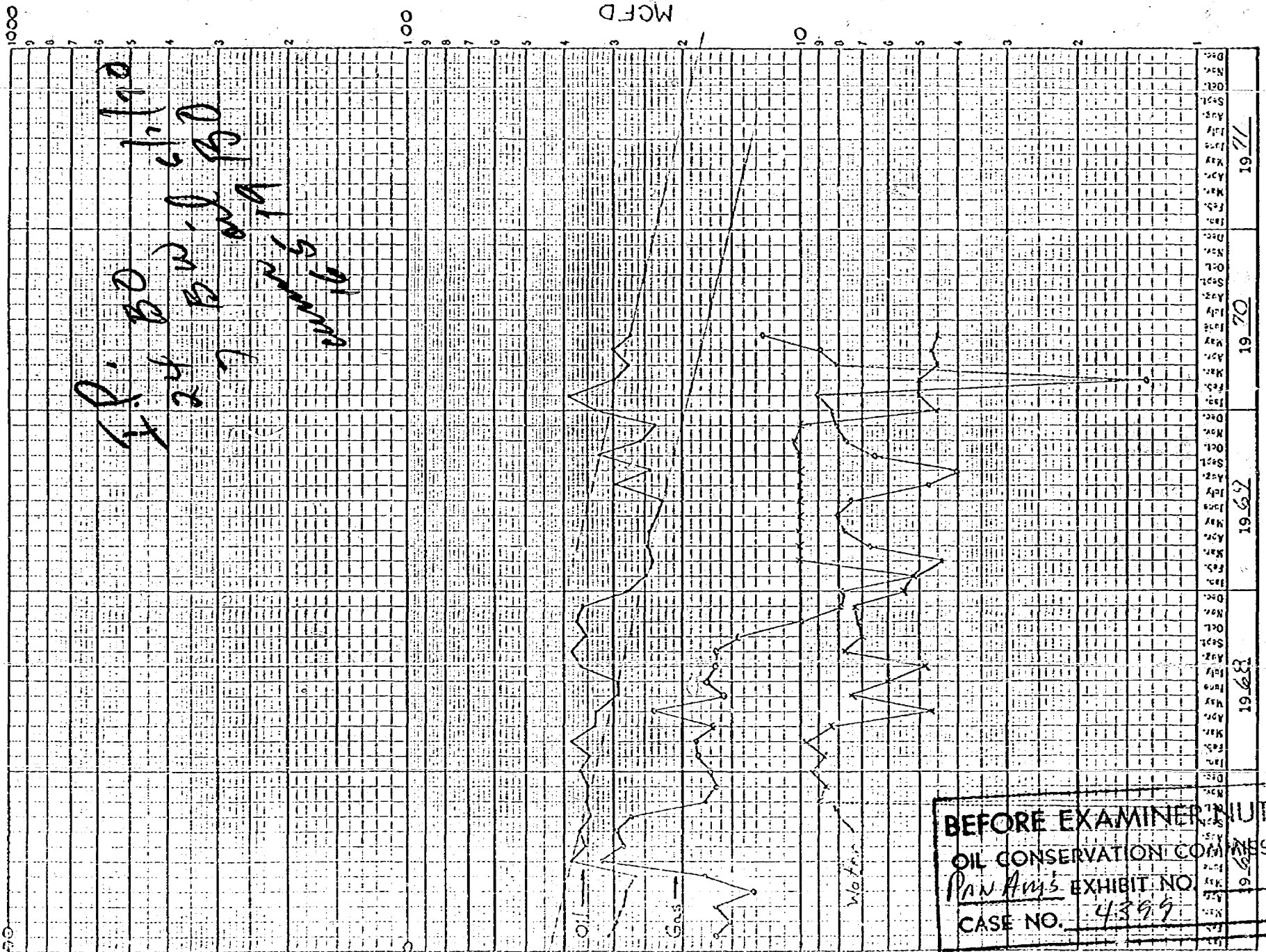
AREA ENGINEER

(Title)

6-23-70

(Date)

PAN AMERICAN PETRO. CORP.
SOUTHLAND ROYALTY "A" NO. 8
BLINEBRY



BEFORE EXAMINER HUTTER
OIL CONSERVATION COMMISSION
Pan Am's EXHIBIT NO. 4
CASE NO. 4399

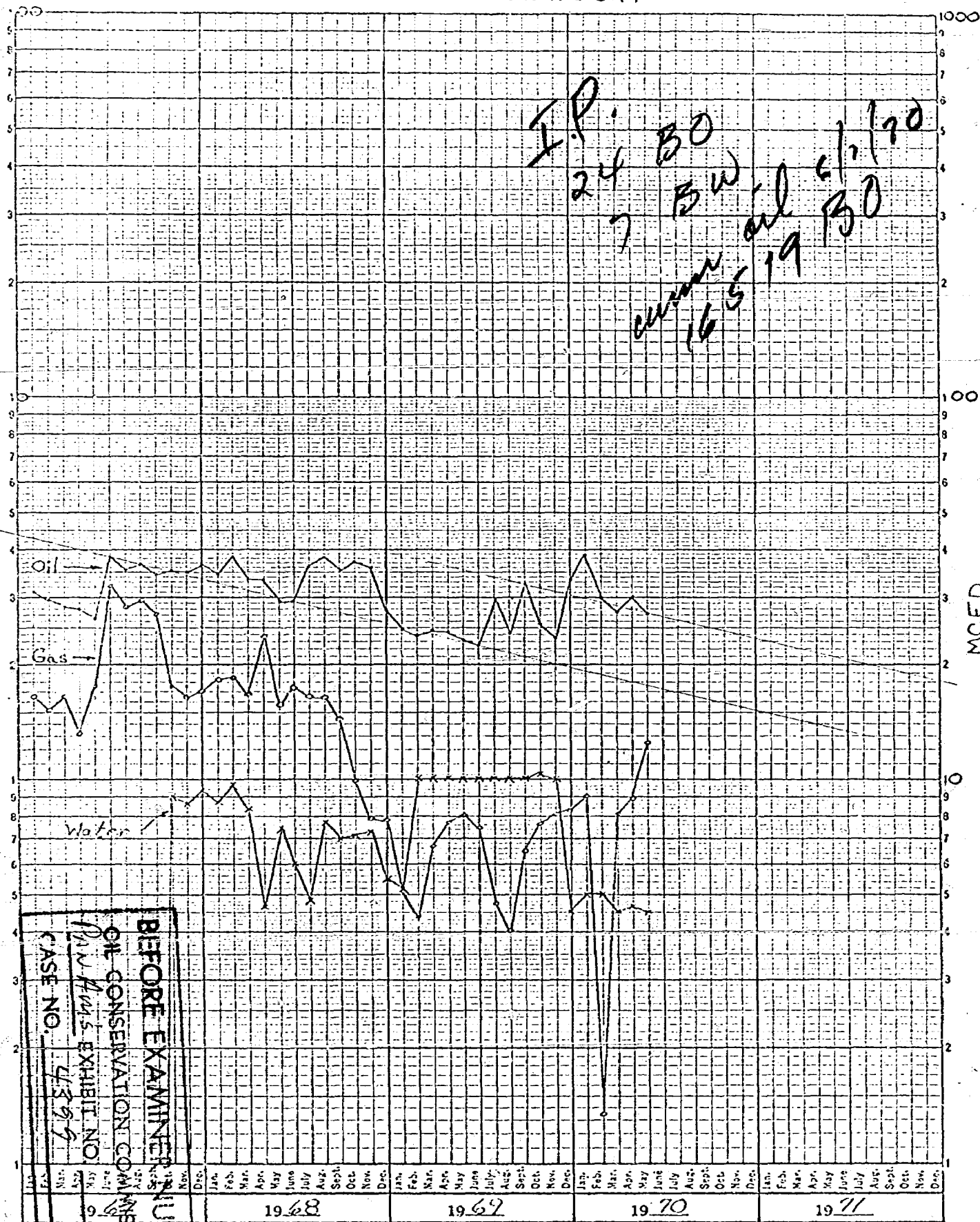
PAN AMERICAN PETRO. CORP.
SOUTHLAND ROYALTY "A" NO. 8
BLINE BRY

KEE 5 YEARS BY MONTHS 46 0000
X 3 LOG CYCLES
MADE IN U.S.A.
KEUFFEL & ESSER CO.

BFPD

MCFD

BEFORE EXAMINER
OF CONSERVATION COMMISSION
Produced Pursuant to
CASE NO. 4399
EXHIBIT NO. 4

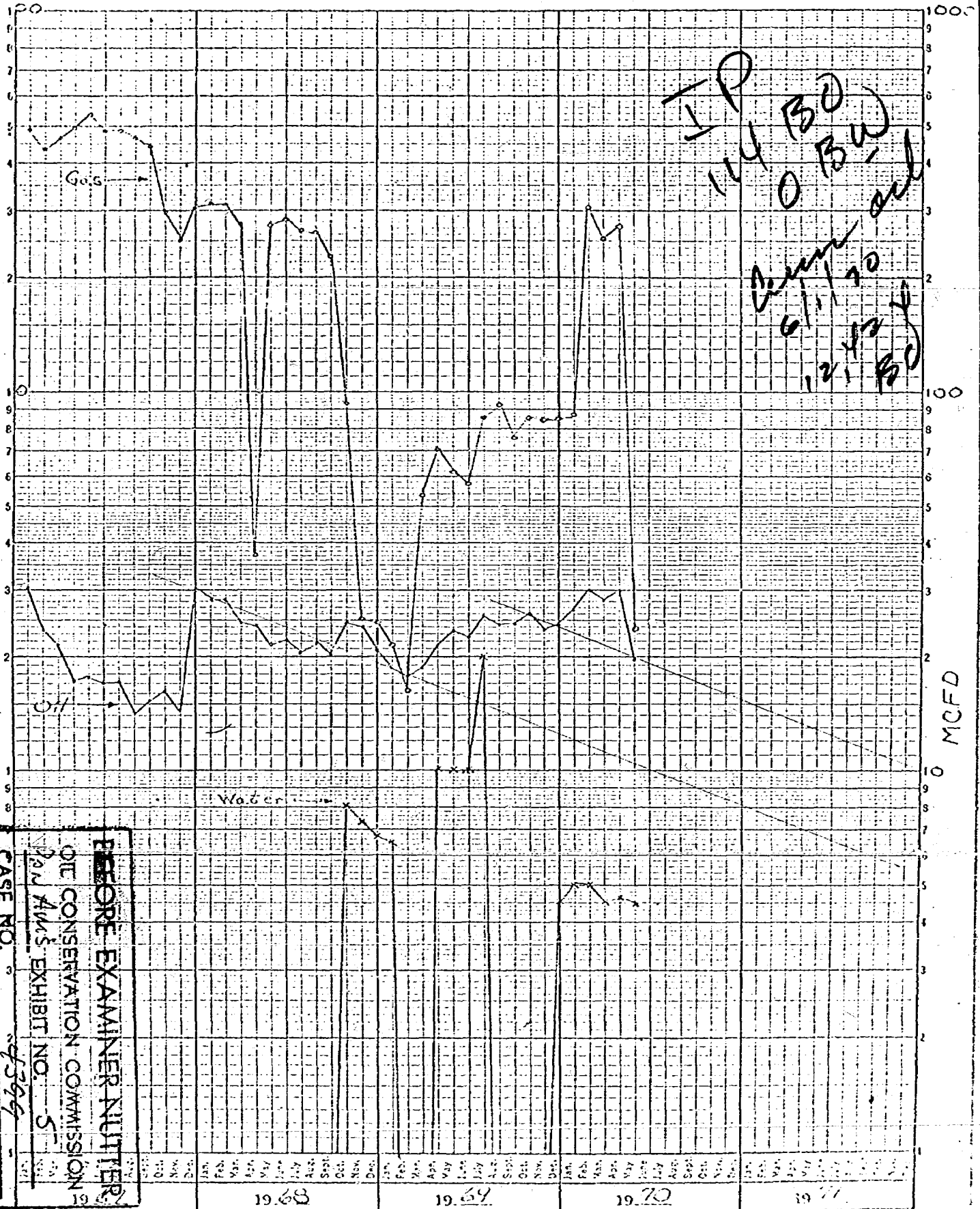


PAN AMERICAN PETRO. CO.
SOUTHLAND ROYALTY "A" NO. 8
TUBB

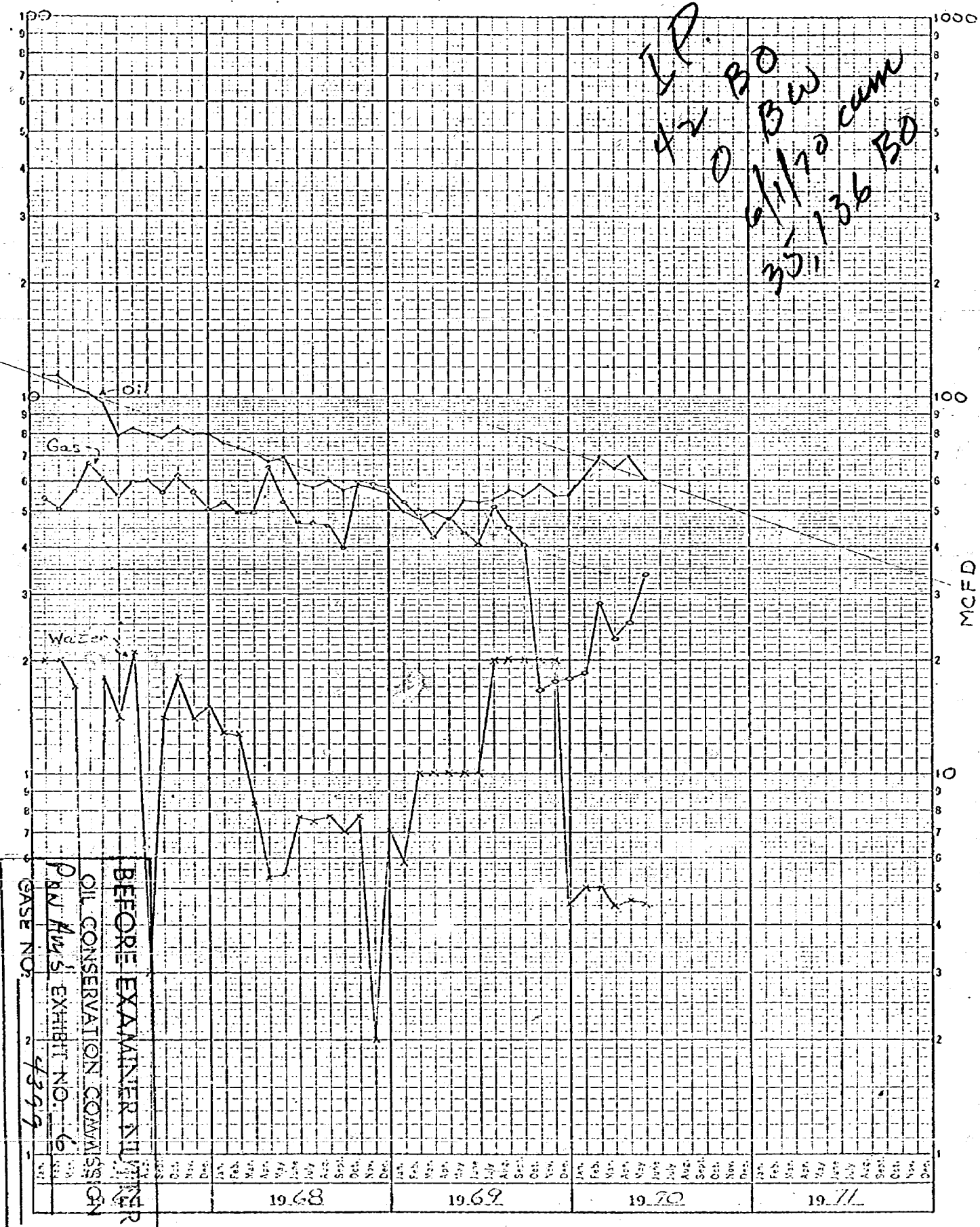
5 YEARS 11 MONTHS 46 GG90
X 3 LOG CYCLES
MADE IN U.S.A.
KEUFFEL & ESSER CO.

BFPD

BEFORE EXAMINER NOTED
OIL CONSERVATION COMMISSION
Pan Am's EXHIBIT NO. 5
CASE NO. 4394



PAN AMERICAN PETRO. CORP.
SOUTHLAND ROYALTY "A" NO. 8
DRINKARD



10 5 YEARS BY MONTHS 46 6690
X 3 LOG CYCLES
KEUFFEL & ESSER CO.

BFPD

MCFD

TYPE OF REPORT - (X)	
Initial Completion	
Special	
General Survey	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-124
Revised 1-1-65

RESERVOIR PRESSURE REPORT

Operator Pan American Petr Corporation		Pool Blinebry-Drinkard-Tubb-Oil		County Lea		Date 6-19-70	
Address P. O. Box 68, Hobbs, N.M.		Producing Formation		Oil Gradient psi/ft.		Water Gradient psi/ft.	
						Gas Gravity BLINEBRY: -2400 TUBB: -2700 DRINKARD: -3050	

LEASE	WELL NO.	LOCATION				ELEV.	OIL (O) OR GAS (G)	DATE TESTED	SHUT-IN HOURS	SHUT-IN TBG. PRESS.	BOMB TEST DATA			SONIC INSTRUMENT TEST DATA*							PRESS. AT DATUM
		U	S	T	R						TEST DEPTH	B.H. TEMP. °F	OB-SERVED PRESS.	PROD. TEST (BBLs./DAY)		LIQUID LEVEL	LIQUID GRAD-IENT PSI/FT.	WT. OF LIQUID COL. PSI	WT. OF GAS COL. PSI	CSG. PRESS.	
														OIL	WATER						
<u>BLINEBRY</u>																					
Southland Royalty "A"	8	O	4	21	37	3484 RDB	O	6-17-70	24						5558	0.40	130	59	386	575	
<u>TUBB</u>																					
Southland Royalty "A"	8	O	4	21	37	3484 RDB	O	6-17-70	24	385	5834		435							442	
<u>DRINKARD</u>																					
* Southland Royalty "A"	3	N	4	21	37	3482 RDB	O	10-29-69	24	445	6332	110	580		0.07					594	
* NOTE: USE PRESSURE ON OFFSET WELL AS THIS IS A PUMPING WELL BELOW A PACKER.																					
<div>BEFORE EXAMINER NUTTER OIL CONSERVATION COMMISSION</div>																					

* NOTE: USE PRESSURE ON OFFSET WELL AS THIS IS A PUMPING WELL BELOW A PACKER.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
PAN AM EXHIBIT NO. 7
CASE NO. 21349

All depths plus or minus sea level; all pressures psi; Bomb shall be calibrated frequently enough against a dead weight tester to ensure an accuracy of one per cent; gas gravity shall be determined by analysis; liquid level shall be feet above datum plane. SEE RULE 302.

* Well shall be produced at least 24 hours prior to shutting in for sonic test.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

J. E. York
(Signature)

AREA ENGINEER
(Title)

6-23-70
(Date)

PRODUCTION AND BOTTOM HOLE PRESSURE DATA

Southland Royalty "A" No. 8

<u>Pools</u>	<u>Date</u>	<u>Latest Test</u> (BOPD x BWPD x GOR)	<u>Bottom Hole Pressure</u>		<u>Remarks</u>
			<u>(PSI)</u>	<u>(Datum)</u>	
Blinebry	6-6-70	3 x 2 x 9,666	575	-2400	Oil - Pump
Tubb	6-20-70	3 x 0 x 49,666	442	-2700	Oil - Flow
Drinkard	6-30-70	6 x 2 x 14,000	594*	-3050	Oil - Pump

*Data from offset well, Southland Royalty A No. 3, since No. 8 is pumping below a packer.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
PAN AM'S EXHIBIT NO. 8
CASE NO. 4399

SOUTHLAND ROYALTY "A" NO. 8

Fluid Characteristics

<u>Pool</u>	<u>Type Fluid</u>	<u>Gravity (°API)</u>
Blinebry	Sweet Crude	42.5
Tubb	" "	39.5
Drinkard	" "	37.8

Surface Commingling authorized by Commission Order PC-89 dated August 13, 1962.

VALUE OF COMMINGLED PRODUCTION
(All production sold under Mobil's inter-
media crude posting; Top = \$3.31/bbl.,
Gravity = 40 - 44.9° API)

Blinebry gravity = 42.5° API @ \$3.31/bbl. x 3 BOPD = \$ 9.93/da.

Tubb gravity = 39.5° API @ \$3.29/bbl x 3 BOPD = \$ 9.87/da.

Drinkard gravity = 37.8° API @ \$3.25/bbl x 6 BOPD = \$ 19.50/da.

Total daily Revenue = \$ 39.30/da

Combined Blinebry-Tubb-Drinkard gravity 39.9° API @ \$3.29/bbl. x 12 BOPD = \$39.48/da.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Pan Am's EXHIBIT NO. 9
CASE NO. 4399

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING P. O. BOX 1410
FORT WORTH, TEXAS—76101

D. L. RAY
DIVISION ENGINEER

July 14, 1970

File: PEH-346-986.510.1

Subject: Downhole Commingling
Blinbry, Tubb, and
Drinkard Pools, Lea
County, New Mexico

1000
JUL 1 23 1970
*Sent for hearing
as requested*

New Mexico Oil Conservation Commission (3)
P. O. Box 871
Santa Fe, New Mexico 87501

Case 4399

Gentlemen:

Pan American Petroleum Corporation respectfully requests that a hearing be docketed to consider our application for commingling the Blinbry, Tubb, and Drinkard Pools (triple) on our Southland Royalty "A" No. 8, located in Section 4, T-21-S, R-27-E, Lea County, New Mexico. Attachment No. 1 is a plat indicating the above referenced well designated by an arrow, and the surrounding wells in the area. Well No. 8 produces oil from all three pay zones with an indicated combined capacity of only 12 BOPD and 4 BWPD.

Attachment No. 2 is an address list of offset operators.

Yours very truly,

D. L. Ray

REM:mg
Attachments

cc: New Mexico Oil Conservation Commission w/attachments
P. O. Box 127
Hobbs, New Mexico

DOCKET MAILED

Date 8-6-70

BLINEDRY GAS
YESO 5500

CONT'L
HONOR "A"

CONT'L
HONOR "A"

CONT'L
HONOR "A"

CONT'L
LOCKHORN

PAN AM. SOUTHLAND ROYALTY LEASE

CONT'L

CONT'L
HONOR "A"

- BLINEDRY GAS FIELD
 - BLINEDRY OIL FIELD
 - THERO GAS FIELD
 - THERO OIL FIELD
 - THERO OIL FIELD
- Case 4399

ATTACHMENT NO. 2

ADDRESS LIST
OFFSET OPERATORS
BLINEBRY-TUBB-DRINKARD FIELD
LEA COUNTY, NEW MEXICO

Continental Oil Company
P. O. Box 460
Hobbs, New Mexico 88240

Shell Oil Company
P. O. Box 276
Roswell, New Mexico 88201

Phillips Petroleum Company
P. O. Box 2130
Hobbs, New Mexico 88240

Western Oil Fields, Inc.
112 North First
Artesia, New Mexico 88210

DRAFT

GMH/esr
August 21, 1970

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. 4399

Order No. R- 4023

8-21-70

APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR DOWN-HOLE COMMINGLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

9:30

This cause came on for hearing at 9 a.m. on August 19, 1970,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 21 day of August, 1970, 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, Pan American Petroleum Corporation,
is the owner and operator of the Southland Royalty "A" Well No.
8, located in Unit W of Section 4, Township 21 South, Range 37
East, NMPM, Lea County, New Mexico.

(3) That pursuant to authority granted by Order No. R-2465,
the subject well was completed by the applicant as a triple
completion (conventional) to produce oil from the Blinbry, Tubb,
and Drinkard Pools through parallel strings of tubing, with
separation of zones by packers set at approximately 6079 and
6400 feet.

(4) That each of said zones is now capable of only low marginal production.

(5) That the applicant now proposes to remove said packers and complete the well in such a manner as to produce the low marginal oil production from the subject pools through a single string of tubing, commingling in the well-bore the production from each of the subject zones.

(6) That the proposed commingling in the subject well of the Blinebry, Tubb, and Drinkard zones may substantially extend the productive lives of said zones in the well.

(7) That the reservoir characteristics of the Blinebry, Tubb, and Drinkard zones in the subject well are such that underground waste would not be caused by the proposed commingling in the well-bore.

(8) That the proposed commingling may result in the recovery of additional oil from each of the commingled zones in the subject well, thereby preventing waste, and will not violate correlative rights.

(9) That the mechanics of the proposed completion are feasible and in accord with good conservation practices.

(10) That in order to allocate the commingled production to each of the commingled zones in the subject well, approximately 25% of the future allowable and production should be attributed to the Blinebry zone, 25% to the Tubb zone, and 50% to the Drinkard zone.

(11) That approval of the subject application will prevent waste and protect correlative rights.

(12) That Order No. R-2465 should be superseded.

IT IS THEREFORE ORDERED:

(1) That the applicant, Pan American Petroleum Corporation, is hereby authorized to complete its Southland Royalty "A" Well

No. 8, located in Unit W of Section 4, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to produce oil from the Blinebry, Tubb, and Drinkard Pools through a single string of tubing, commingling in the well-bore the production from each of said pools.

(2) That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order.

(3) That approximately 25% of the future allowable and production shall be attributed to the Blinebry zone, approximately 25% to the Tubb zone, and approximately 50% to the Drinkard zone of the subject well until further order of the Commission.

(4) That the commingling in the well-bore authorized by this order shall continue only so long as the commingled production of the three zones does not exceed 40 barrels of oil per day nor 80 barrels of water per day.

(5) That the maximum amount of gas which may be produced daily from the commingled zones in the subject well shall be determined by multiplying 2,000 by the top unit allowable for the Blinebry Pool.

(6) That Order No. R-2465 is hereby superseded.

(7) 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.