

CASE 5545: CONTINENTAL OIL CO.  
FOR DOWNHOLE COMMINGLING, LEA  
COUNTY, NEW MEXICO

CASE NO.

55 4/5

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APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
August 27, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil Company ) CASE  
for downhole commingling, Lea County, ) 5545  
New Mexico. )

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission:	William F. Carr, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico
For the Applicant:	Jason Kellahin, Esq. KELLAHIN & FOX 500 Don Gaspar Santa Fe, New Mexico

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General Court Reporting Service  
825 Calle Meja, No. 122, Santa Fe, New Mexico 87501  
Phone (505) 982-9212

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Page

VICTOR T. LYON

Direct Examination by Mr. Kellahin

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Cross Examination by Mr. Stamets

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EXHIBIT INDEX

Page

Offered Admitted

Exhibit Number One, Plat

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Exhibit Number Two, Diagram

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Exhibit Number Three, Log

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Exhibit Number Four, Form C-116

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Exhibit Number Five, Decline Curve

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1 MR. STAMETS: We will call the next case, 5545.

2 MR. CARR: Case 5545, application of Continental  
3 Oil Company for downhole commingling, Lea County, New Mexico.

4 MR. KELLAHIN: If the Examiner please, may the  
5 record show the same appearance and that the witness has been  
6 sworn.

7 MR. STAMETS: The record will so show.

8 VICTOR T. LYON

9 called as a witness, having been previously sworn, was  
10 examined and testified as follows:

11  
12 DIRECT EXAMINATION

13 BY MR. KELLAHIN:

14 Q Would you state your name, please?

15 A Victor T. Lyon, L-y-o-n.

16 Q Are you the same Mr. Lyon who testified in Case  
17 5544 and had your qualifications accepted?

18 A Yes, I am.

19 Q Are you familiar with the application of Continental  
20 Oil Company in Case 5545?

21 A Yes, sir.

22 Q What is proposed by the applicant in this Case?

23 A Case 5545 is the application of Continental Oil  
24 Company for authority to commingle in the well bore,  
25 production from the Drinkard and the Penrose Skelly Oil Pool

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1 in its Lockhart A-17 Well Number 3, located in Unit H of  
 2 Section 17, Township 21 South, Range 37 East, Lea County,  
 3 New Mexico.

4 Q Referring to what has been marked as Exhibit Number  
 5 One, identify that exhibit?

6 A Exhibit One is a location plat showing the well,  
 7 the lease on which it is located, the locations and ownerships  
 8 of surrounding properties and wells to the best of our  
 9 knowledge and belief.

10 It shows the lease outlined in red, consisting of  
 11 the east half, northeast quarter and northeast quarter,  
 12 southeast quarter and the west half of southwest quarter,  
 13 Section 17, Township 21 South, Range 37 East.

14 Q Referring to what has been marked as Exhibit Number  
 15 Two, would you discuss that exhibit?

16 A Let me mention the well. The well is shown circled  
 17 in red at a location nineteen hundred and eighty feet from  
 18 the north line, six sixty from the east line of Section 17.

19 Q Now, referring to Exhibit Number Two, will you  
 20 identify that exhibit?

21 A Exhibit Number Two is a schematic diagram showing  
 22 the manner in which the well was completed and equipped.  
 23 It shows the depth, the size of the casing, the amount of  
 24 cement that was used and the top of the cement for the  
 25 surface, the intermediate and production string. It shows

1 the Drinkard perforations, sixty-four eighty-one to sixty-six  
2 oh two; Penrose Skelly perforations thirty-seven twenty-seven  
3 to seventy-three. These are overall intervals. The Blinebry  
4 perforations which have been squeezed, and it also shows at  
5 the base of the well the initial producing interval in the  
6 well which was open hole plus perforations in the shoe-joint  
7 of the casing, which those intervals have been cemented off.

8 Q As I understand you then, the only zone open to the  
9 well bore is the Blinebry at the present time?

10 A The Blinebry is not open. The Penrose Skelly is  
11 open, and the Drinkard is isolated by a bridge plug set at  
12 forty-five thirty, which was placed when the well was  
13 recompleted in the Penrose Skelly.

14 The well was initially completed in the lower  
15 Drinkard. It was plugged back in about 1955 and completed  
16 in the Blinebry. Those perforations were squeezed and the  
17 upper Drinkard was completed and in June of '72 the Drinkard  
18 was abandoned, a bridge plug was placed at forty-five thirty  
19 and the well was recompleted in the Penrose Skelly.

20 Q And now you propose to drill out the bridge plug  
21 and commingle the production from the Penrose Skelly and the  
22 Drinkard?

23 A That is correct.

24 Q Now, referring to Exhibit Number Three, will you  
25 identify that exhibit?

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1 A Exhibit Three is a copy of pertinent sections of  
2 the log which was run on this well, it shows the tops of the  
3 Grayburg and the San Andres, and the top of the Drinkard, it  
4 shows the perforations in the Grayburg and the Drinkard.

5 Q Referring to Exhibit Number Four, can you identify  
6 that exhibit?

7 A Exhibit Number Four is a copy of the C-116 showing  
8 the latest tests that have been taken on the well. The  
9 Drinkard completion was tested in May, on May 2nd of 1972,  
10 just prior to its abandonment for recompletion of the Penrose  
11 Skelly.

12 MR. STAMETS: Is that a pumping gauge or a flowing  
13 gauge?

14 A I'm not certain of that, but I think it was flowing.

15 The Penrose Skelly completion was tested on July 13th  
16 and it tested at thirteen barrels of oil, nine barrels of  
17 water, fifteen MCF of gas.

18 The Drinkard test back in '72 was nine barrels of  
19 oil, no water, fifty-one MCF of gas.

20 Q Now, referring to what has been marked as Exhibit  
21 Number Five, will you discuss that exhibit?

22 A Exhibit Number Five is a decline curve showing  
23 the production from the well, beginning in January of 1970  
24 and continuing through the present. The portion of the curve  
25 through May of 1972 is the Drinkard production and from June

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1 of '72 to the present it shows the Penrose Skelly production.  
2 You will note that it could very easily be the same formation,  
3 because the well is producing approximately equivalent  
4 volumes?

5 The Drinkard oil and gas production shows a very  
6 low decline rate. The Penrose Skelly is somewhat steeper.

7 A projection of both of these curves would indicate  
8 that initially the Penrose Skelly would probably produce more  
9 than half of the combined production. But in a very short  
10 time the Drinkard will overtake it and ultimately will be  
11 producing more than the Penrose Skelly based on the trend estab-  
12 lished by this curve. And because of this, I would recommend  
13 that the production be allocated fifty percent to the Drinkard  
14 and fifty percent to the Penrose Skelly.

15 Q Has production from the two zones been commingled  
16 at the surface?

17 A Yes, they have for a number of years and there  
18 has been no indication of incompatibility.

19 Q Is there any difference in the ownership in the two  
20 zones?

21 A No, it is identical.

22 Q Do you have any information on the bottomhole pressures  
23 of the two zones?

24 A We have estimated the Drinkard bottomhole pressure  
25 at seven hundred pounds, based on the average reservoir pressure,

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1 and also pressures from the nearest wells. The current  
2 pressure in this well is not available because it is isolated  
3 below the bridge plug. The Penrose Skelly pressure was  
4 measured from the fluid-level survey at four hundred and  
5 fifty pounds.

6 Q Now, in your opinion will the granting of this  
7 application result in the prevention of waste?

8 A Yes, it will.

9 Q Will it increase the producing rate and extend the  
10 producing life of the well?

11 A Yes, very definitely.

12 Q Will that result in the recovery of oil that would  
13 not otherwise be recovered?

14 A In my opinion it would.

15 Q Would the correlative rights of any party be  
16 impaired by the approval of this application?

17 A I don't see how they could be.

18 Q Is there any possibility of damage to either one  
19 of the reservoirs as a result of the commingling?

20 A I don't believe so. There is no gas problem and  
21 there is no water problem, and I think there would be no  
22 danger of damage or waste.

23 Q Were Exhibits One through Five prepared by you or  
24 under your supervision?

25 A Yes, they were.

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1 MR. KELLAHIN: At this time I would like to offer  
2 into evidence Exhibits One through Five.

3 MR. STAMETS: They will be admitted.

4 MR. KELLAHIN: That's all we have, Mr. Stamets.

5

6

CROSS EXAMINATION

7 BY MR. STAMETS:

8 Q Turning back to Exhibit Number Two, I presume you  
9 will run tubing and the well will be put on a pump?

10 A Yes.

11 Q The tubing will be set, what, within a hundred feet  
12 of the Drinkard perfs?

13 A Right.

14 Q As to the allocation, what life expectancy would  
15 you predict on this well?

16 A Well, now let's see. I predicted a remaining life  
17 of approximately ten years. And I further estimated that  
18 the additional recovery as a result of this downhole  
19 commingling opposed to producing the reservoir's separately,  
20 assuming that we could economically do that, would be  
21 approximately six thousand barrels.

22 Q I gather from your testimony that the only way to  
23 get a really accurate allocation formula would be to have  
24 some sort of a sliding-scale formula over this ten years  
25 which would result in some slight percentage variation from

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1 month to month, but this is not a practical method?

2 A. Right. Also very frequently the depletion type  
 3 reservoir that declines will show a flattening at a stage  
 4 in the producing life and it appears that the Penrose Skelly  
 5 is in such a stage right now and I don't think the steep  
 6 decline rate that it has shown this time is going to continue,  
 7 so when it is in that transition period it is very difficult  
 8 to have any accuracy on a projection of decline.

9 Q Are these liquids compatible?

10 A Yes, sir.

11 Q What about the gas? I see the gas-oil ratio is  
 12 quite a bit higher on the Drinkard, have you made a projection  
 13 on total gas production as on oil?

14 A Well, I looked at it, and it appears that they are  
 15 very -- the decline rate is following the oil just almost  
 16 exactly. It's true that, I think the Drinkard showed a  
 17 gas-oil ratio of some five thousand cubic feet per barrel  
 18 and the Penrose Skelly had about twelve hundred, if I  
 19 remember that.

20 Q Looking at Exhibit Number Four, it would appear  
 21 that the Skelly gas production is about a third of the  
 22 Drinkard production?

23 A That sounds reasonable.

24 Q Do you still think the gas ought to be allocated  
 25 on a fifty-fifty basis or some other percentage?

1 A. I wouldn't argue with a one-third and two-thirds  
2 allocation with two-thirds of it going to the Drinkard. It  
3 probably would be in order.

4 MR. STAMETS: Any other questions of the witness?  
5 He may be excused.

6 Anything further in this Case?

7 MR. KELLAHIN: That's all, Mr. Stamets.

8 MR. STAMETS: We will take the case under advise-  
9 ment.

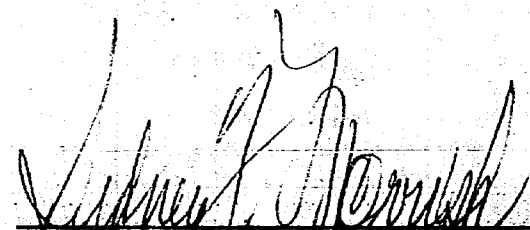
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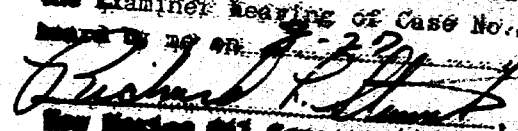
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State of New Mexico )  
County of Santa Fe ) ss.

I, SIDNEY F. MORRISH, a 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 the same is a true and correct record of the said  
proceedings to the best of my knowledge, skill and ability.

  
Sidney F. Morrish, Court Reporter

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 55-15  
heard by me on 8-23-72 1972  
  
New Mexico Oil Conservation Commission

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. 5545  
Order No. R-5088

APPLICATION OF CONTINENTAL OIL  
COMPANY FOR DOWNHOLE COMMINGLING,  
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 27, 1975, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 9th day of September, 1975, 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, Continental Oil Company, is the owner and operator of the Lockhart A-17 Well No. 3, located in Unit H of Section 17, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant seeks authority to commingle Drinkard and Penrose Skelly production within the wellbore of the above-described well.

(4) That from the Drinkard zone, the subject well is capable of low marginal production only.

(5) That from the Penrose Skelly zone, the subject well is capable of marginal production only.

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

-2-

Case No. 5545  
Order No. R-5088

(8) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Commission any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 50 percent and 70 percent of the commingled oil and gas production, respectively, should be allocated to the Drinkard zone, and 50 percent and 30 percent of the commingled oil and gas production, respectively, to the Penrose Skelly zone.

IT IS THEREFORE ORDERED:

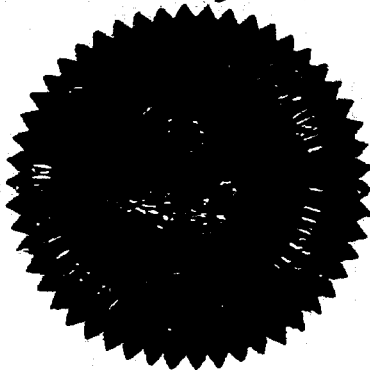
(1) That the applicant, Continental Oil Company, is hereby authorized to commingle Drinkard and Penrose Skelly production within the wellbore of the Lockhart A-17 Well No. 3, located in Unit H of Section 17, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That 50 percent and 70 percent of the commingled oil and gas production, respectively, shall be allocated to the Drinkard zone and 50 percent and 30 percent of the commingled oil and gas production, respectively, shall be allocated to the Penrose Skelly zone.

(3) That the operator of the subject well shall immediately notify the Commission's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

(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

*Phil R. Lucero*  
PHIL R. LUCERO, Chairman

*Emery Arnold*  
EMERY ARNOLD, Member

*Joe D. Ramey*  
JOE D. RAMEY, Member & Secretary

S E A L

jr/





# OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

September 9, 1975

Jason Kellahin  
Kellahin & Fox  
Attorneys at Law  
Post Office Box 1769  
Santa Fe, New Mexico

Re: CASE NO. 5545  
ORDER NO. R-5088

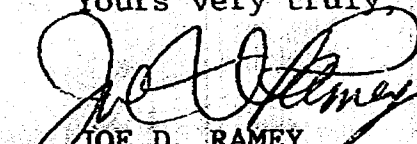
Applicant:

Continental Oil Company

Dear Sir:

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

Yours very truly,

  
JOE D. RAMEY  
Secretary-Director

JDR/fd

Copy of order also sent to:

Hobbs OCC x  
Artesia OCC \_\_\_\_\_  
Aztec OCC \_\_\_\_\_

Other \_\_\_\_\_  
\_\_\_\_\_

CONOCO

Case 5545

L. P. Thompson  
Division Manager  
Production Department  
Hobbs Division  
Western Hemisphere Petroleum Division

Continental Oil Company  
P.O. Box 480  
1001 North Turner  
Hobbs, New Mexico 88240  
(505) 393-4141

1975  
OIL CONSERVATION COMM.  
Santa Fe

August 5, 1975

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

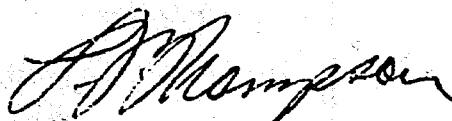
Attention Mr. J. D. Ramey - Secretary-Director

Gentlemen:

Application for Downhole Commingling - Lockhart A-17 No. 3

Attached in triplicate is our application for downhole commingling of Drinkard and Penrose Skelly oil in our Lockhart A-17 No. 3 - H-17-21-37. Please set this matter for hearing on your September 10, 1975 Examiner Docket.

Yours very truly,



VTL:reh  
Enc  
CC:  
U.S.G.S.  
P. O. Box 1157  
Hobbs, New Mexico 88240

JCC: FOH: JWK

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF CONTINENTAL OIL COMPANY FOR  
AUTHORITY TO COMMINGLE IN THE  
WELLBORE OIL FROM THE DRINKARD  
AND PENROSE SKELLY OIL POOLS  
IN ITS LOCKHART A-17 WELL NO. 3  
LOCATED IN UNIT H OF SECTION 17,  
TOWNSHIP 21 SOUTH, RANGE 37 EAST,  
LEA COUNTY, NEW MEXICO

A P P L I C A T I O N

Applicant, Continental Oil Company, respectfully requests authority to commingle in the wellbore oil produced from the Drinkard and Penrose Skelly oil pools in its Lockhart A-17 Well No. 3 located in Unit H of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico and in support thereof would show:

1. Applicant is operator and co-owner of the Lockhart A-17 Lease consisting of, in addition to other lands, E/2 NE/4 and NE/4 SE/4 Section 17, Township 21 South, Range 37 East, Lea County, New Mexico.
2. Applicant has drilled on said lease its Lockhart A-17 Well No. 3 located 1980' FNL and 660' FEL of said Section.
3. Said Lockhart A-17 No. 3 was originally completed in the Drinkard Pool and subsequently was recompleted in the Blinebry Oil Pool and then the Penrose Skelly Pool. The Blinebry perforations were squeezed when that interval was abandoned.
4. The Penrose Skelly completion has declined to marginal oil producing rates and applicant desires to commingle in the wellbore production from that pool with the Drinkard pool.
5. Combined production from the two pools is estimated to be less than 30 barrels of oil per day with low water production and moderate gas oil ratio.
6. The granting of this application will extend the producing life of the well and will result in the production of oil that otherwise would not be recovered and therefore, is in the interest of prevention of waste

and will not impair correlative rights.

WHEREFORE, applicant respectfully requests that this matter be set for hearing before the commission's duly appointed examiner and that upon hearing an order be entered authorizing the commingling in the wellbore of the production as described above.

Respectfully Submitted,

CONTINENTAL OIL COMPANY



L. P. Thompson  
Division Manager  
Production

reh

DOCKET MAILED

Date 8/19/75



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF CONTINENTAL OIL COMPANY FOR  
AUTHORITY TO COMMINGLE IN THE  
WELLBORE OIL FROM THE DRINKARD  
AND PENROSE SKELLY OIL POOLS  
IN ITS LOCKHART A-17 WELL NO. 3  
LOCATED IN UNIT H OF SECTION 17,  
TOWNSHIP 21 SOUTH, RANGE 37 EAST,  
LEA COUNTY, NEW MEXICO

A P P L I C A T I O N

Applicant, Continental Oil Company, respectfully requests authority to commingle in the wellbore oil produced from the Drinkard and Penrose Skelly oil pools in its Lockhart A-17 Well No. 3 located in Unit H of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico and in support thereof would show:

1. Applicant is operator and co-owner of the Lockhart A-17 Lease consisting of, in addition to other lands, E/2 NE/4 and NE/4 SE/4 Section 17, Township 21 South, Range 37 East, Lea County, New Mexico.
2. Applicant has drilled on said lease its Lockhart A-17 Well No. 3 located 1980' FNL and 660' FEL of said Section.
3. Said Lockhart A-17 No. 3 was originally completed in the Drinkard Pool and subsequently was recompleted in the Blinebry Oil Pool and then the Penrose Skelly Pool. The Blinebry perforations were squeezed when that interval was abandoned.
4. The Penrose Skelly completion has declined to marginal oil producing rates and applicant desires to commingle in the wellbore production from that pool with the Drinkard pool.
5. Combined production from the two pools is estimated to be less than 30 barrels of oil per day with low water production and moderate gas oil ratio.
6. The granting of this application will extend the producing life of the well and will result in the production of oil that otherwise would not be recovered and therefore, is in the interest of prevention of waste

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WHEREFORE, applicant respectfully requests that this matter be set for hearing before the commission's duly appointed examiner and that upon hearing an order be entered authorizing the commingling in the wellbore of the production as described above.

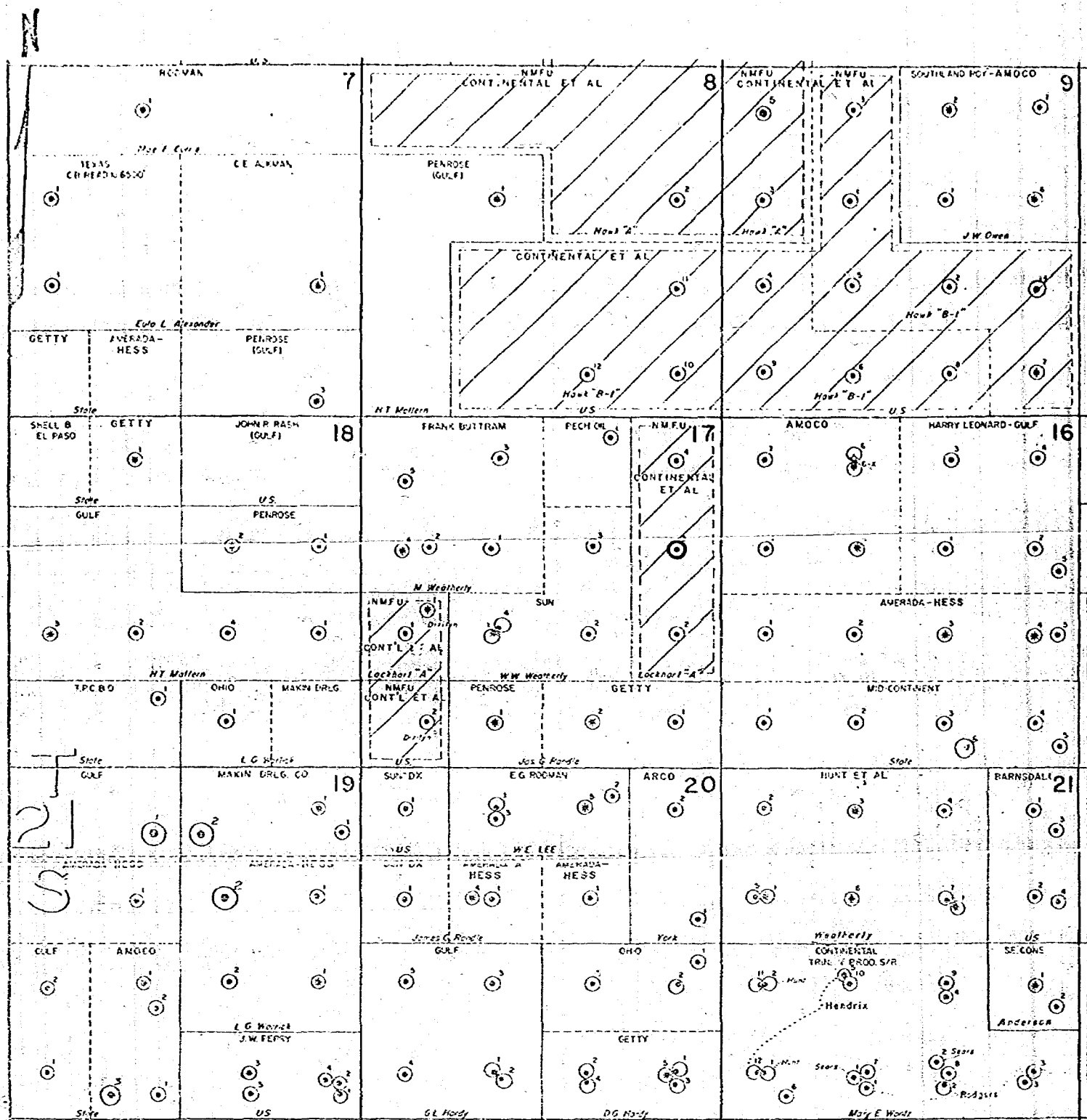
Respectfully Submitted,

CONTINENTAL OIL COMPANY

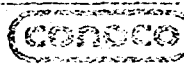
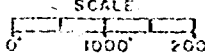
A handwritten signature in cursive script, appearing to read "L. P. Thompson".

L. P. Thompson  
Division Manager  
Production

reh



R37E

	
PRODUCTION DEPARTMENT	HOBBS DIVISION
<p>LEA COUNTY, NEW MEXICO</p> <p>WANTZ &amp;</p> <p>LOCKHART A-17 LEASE</p>	
<p>SCALE</p> 	



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF CONTINENTAL OIL COMPANY FOR  
AUTHORITY TO COMMINGLE IN THE  
WELLBORE OIL FROM THE DRINKARD  
AND PENROSE SKELLY OIL POOLS  
IN ITS LOCKHART A-17 WELL NO. 3  
LOCATED IN UNIT H OF SECTION 17,  
TOWNSHIP 21 SOUTH, RANGE 37 EAST,  
LEA COUNTY, NEW MEXICO

A P P L I C A T I O N

Applicant, Continental Oil Company, respectfully requests authority to commingle in the wellbore oil produced from the Drinkard and Penrose Skelly oil pools in its Lockhart A-17 Well No. 3 located in Unit H of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico and in support thereof would show:

1. Applicant is operator and co-owner of the Lockhart A-17 Lease consisting of, in addition to other lands, E/2 NE/4 and NE/4 SE/4 Section 17, Township 21 South, Range 37 East, Lea County, New Mexico.
2. Applicant has drilled on said lease its Lockhart A-17 Well No. 3 located 1980' FNL and 660' FBL of said Section.
3. Said Lockhart A-17 No. 3 was originally completed in the Drinkard Pool and subsequently was recompleted in the Blinebry Oil Pool and then the Penrose Skelly Pool. The Blinebry perforations were squeezed when that interval was abandoned.
4. The Penrose Skelly completion has declined to marginal oil producing rates and applicant desires to commingle in the wellbore production from that pool with the Drinkard pool.
5. Combined production from the two pools is estimated to be less than 30 barrels of oil per day with low water production and moderate gas oil ratio.
6. The granting of this application will extend the producing life of the well and will result in the production of oil that otherwise would not be recovered and therefore, is in the interest of prevention of waste

and will not impair correlative rights.

WHEREFORE, applicant respectfully requests that this matter be set for hearing before the commission's duly appointed examiner and that upon hearing an order be entered authorizing the commingling in the wellbore of the production as described above.

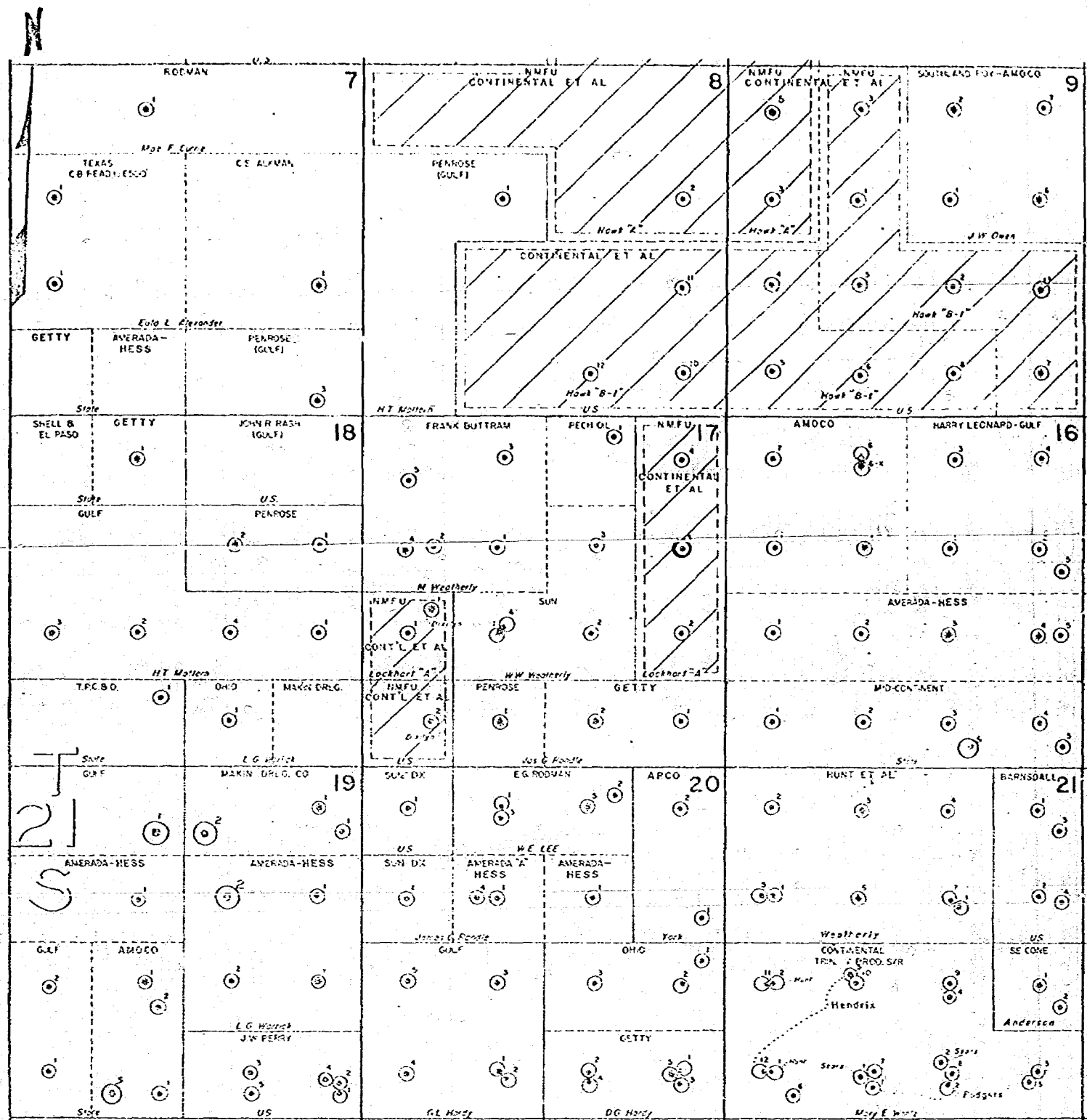
Respectfully Submitted,

CONTINENTAL OIL COMPANY

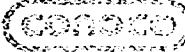
A handwritten signature in cursive script, appearing to read "L. P. Thompson".

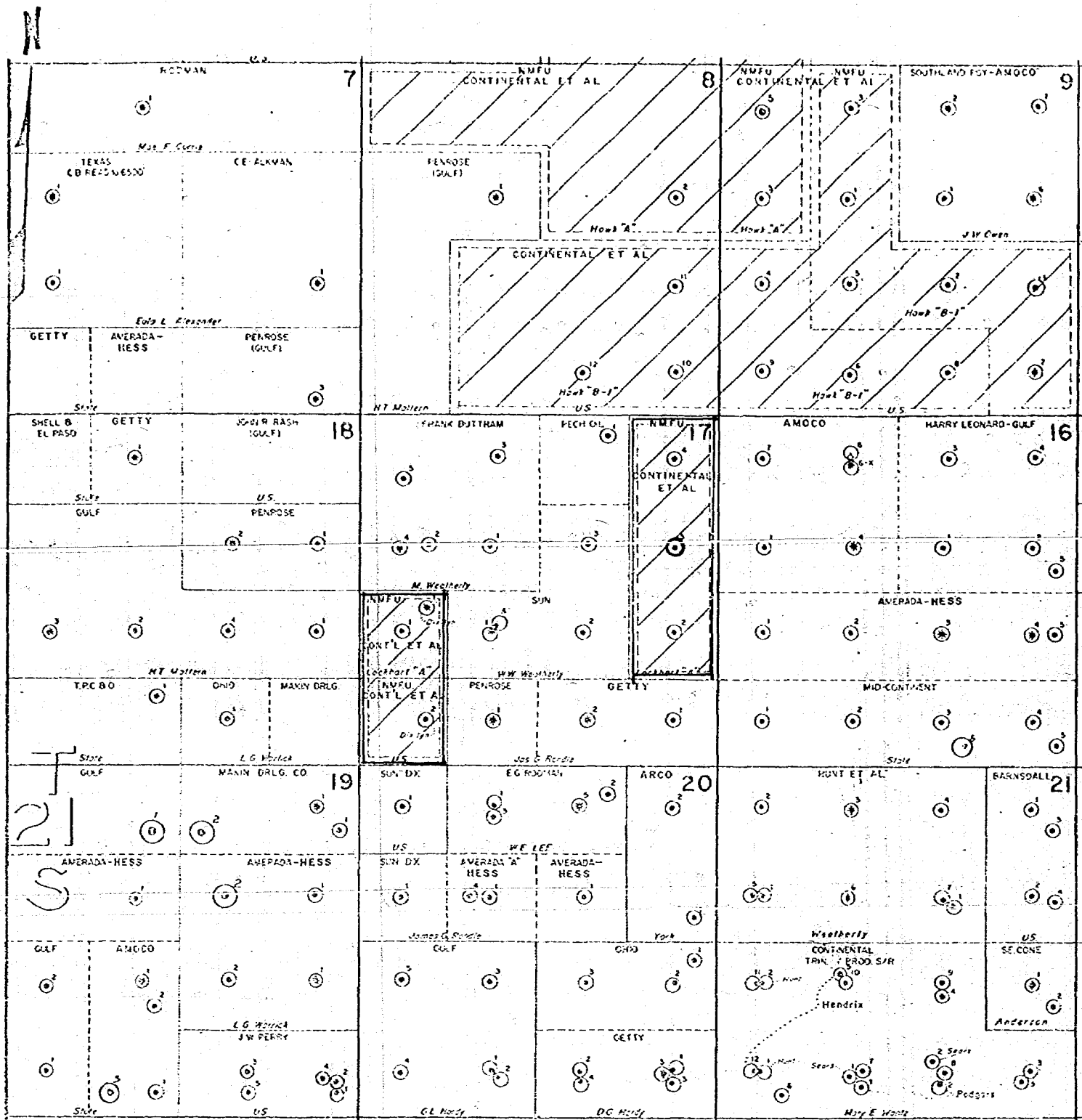
L. P. Thompson  
Division Manager  
Production

reh

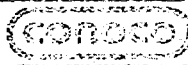


R37E

	
PRODUCTION DEPARTMENT	HOBBS DIVISION
<p>LEA COUNTY, NEW MEXICO</p> <p>WANTZ &amp;</p> <p>LOCKHART A-17 LEASE</p>	
<p>SCALE</p> <p>0 1000 2000</p>	



R37E



PRODUCTION DEPARTMENT      HOBBS DIVISION

LEA COUNTY, NEW MEXICO  
WANTZ &  
LOCKHART A-17 LEASE

SCALE  
0 1000 2000

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

N-116  
Revised 1-1-65

Operator <b>Continental Oil Company</b>		Pool <b>Drinkard and Skelly Penrose Grayburg</b>				County <b>Lea</b>							
Address <b>P. O. Box 460 Hobbs, New Mexico</b>						TYPE OF TEST - (X)		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input type="checkbox"/>	

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	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.	
<u>Penrose-Skelly (Grayburg)</u>																
Lockhart A-17	3	H	17	21S	37E	7-13-75	P	NA	--	13	24	9	36.0	13	15	1154
<u>Drinkard</u>																
Lockhart A-17	3	H	17	21S	37E	5-2-72	SI	NA	--	NA	24	0	38.2	9	51	5667

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


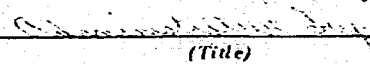
During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized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

  
 (Signature)  
  
 (Title)  
 8-22-75  
 (Date)

Continental Oil Company  
Lockhart A-17 No. 3  
1980' FNL and 660' FEL  
17-21-37 - Elev. 3473

13 3/8" at 222'  
Cmtd w/200 sx (Circ)

9 5/8" at 2529'  
Cmtd w/500 sx  
Cmt. top 513'

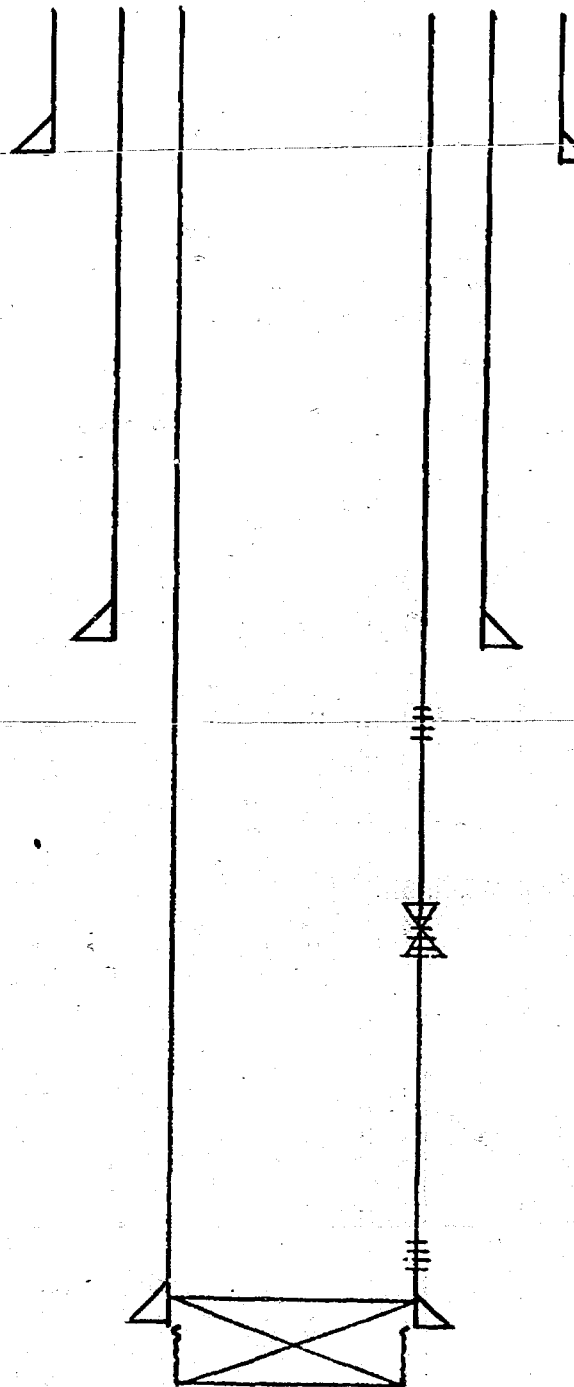
7" at 6629'  
Cmtd w/650 sx  
Cmt top 3582'

TD 6645'

Penrose Skelly perfs  
3727'-73' (overall)

Blinebry perfs  
5610'-5900' (Squeezed)

Drinkard perfs  
6481'-6602'



Continental Oil Company  
Lockhart A-17 No. 3  
1980' FNL and 660' FEL  
17-21-37 - Elev. 3473

13 3/8" at 222'  
Cmtd w/200 sx (Circ)

9 5/8" at 2529'  
Cmtd w/500 sx  
Cmt. top 513'

7" at 6629'  
Cmtd w/650 sx  
Cmt top 3582'

TD 6645'

Penrose Skelly perfs  
3727'-73' (overall)

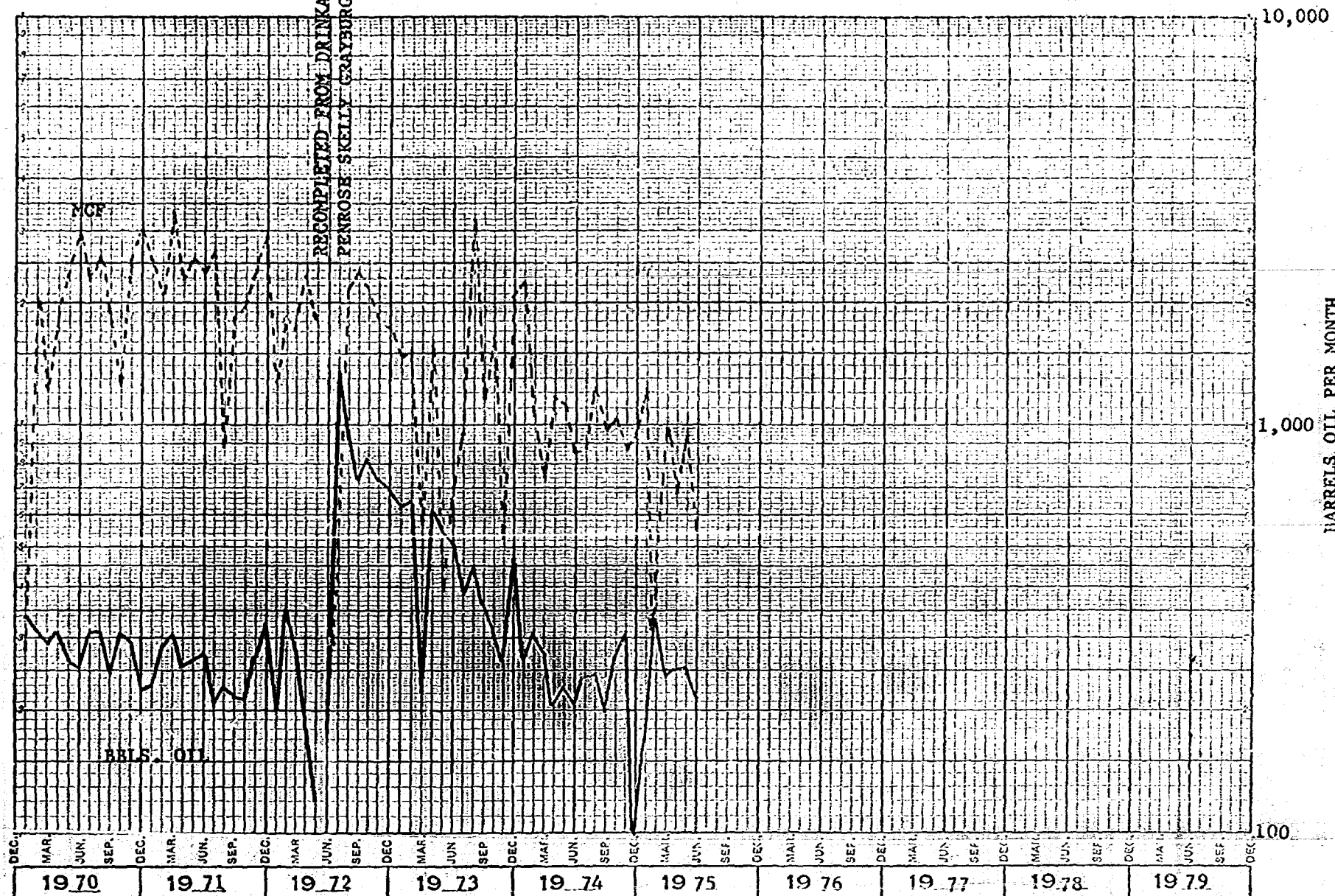
Blinebry perfs  
5610'-5900' (Squeezed)

Drinkard perfs  
6481'-6602'

EXHIBIT #2  
5545

LOCKHART A-17 NO. 3

~~RECOMPLETED FROM DRINKARD TO~~  
~~PENROSE SKELLY CRAYBURG ZONE~~ 6-72





Continental Oil Company  
Lockhart A-17 No. 3  
1980' FNL and 660' FEL  
17-21-37 - Elev. 3473

13 3/8" at 222'  
Cmtd w/200 sx (Circ)

9 5/8" at 2529'  
Cmtd w/500 sx  
Cmt. top 513'

7" at 6629'  
Cmtd w/650 sx  
Cmt top 3582'

TD 6645'

Penrose Skelly perfs  
3727'-73' (overall)

Blinebry perfs  
5610'-5900' (Squeezed)

Drinkard perfs  
6481'-6602'

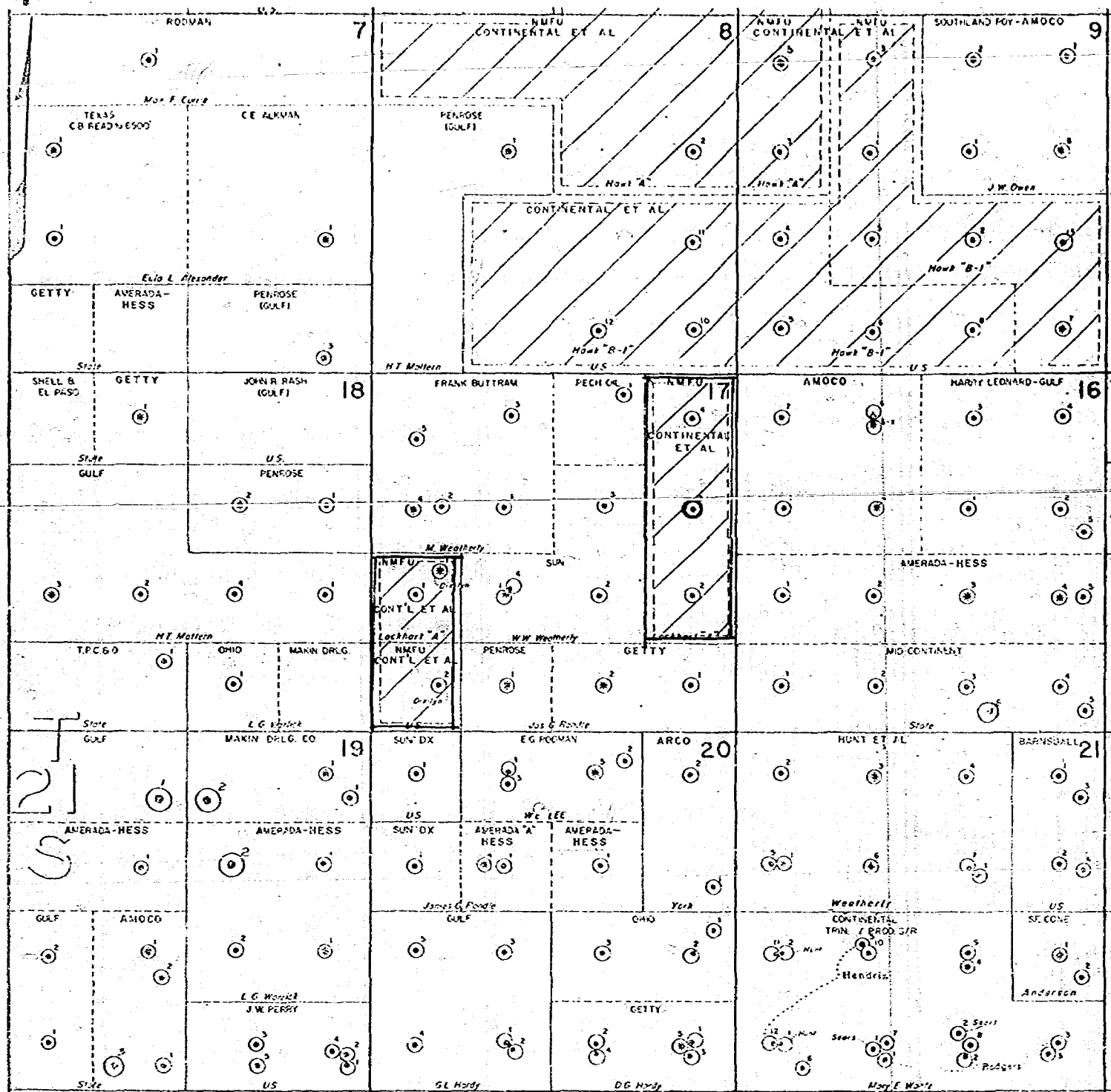
BP 4530  
Bridged off in 1955  
1972

BEFORE EXAMINER STAMETS  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 2  
CASE NO. 5545  
Submitted by Conoco  
Hearing Date 8-27-75

**MANUSCRIPT NO. 706A, SECTION 10**

**22. 2000**

Top of Drinkard



R37E

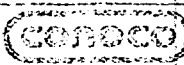
	
PRODUCTION DEPARTMENT	HOBBS DIVISION
<p>LEA COUNTY, NEW MEXICO</p> <p>WANTZ &amp;</p> <p>LOCKHART A-17 LEASE</p>	
<p>SCALE</p> <p>0 1000 2000</p>	

EXHIBIT #1  
5545

**LAURENCE OTT WELLS, CHAIRMAN, 1984**

[illegible]

Top of Drinkard

EX-101-13  
5545

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator <b>Continental Oil Company</b>		Pool <b>Drinkard and Skelly Penrose Grayburg</b>						County <b>Lea</b>								
Address <b>P. O. Box 460 Hobbs, New Mexico</b>						TYPE OF TEST - (X)		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input type="checkbox"/>				
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	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.	
<u>Penrose-Skelly (Grayburg)</u>																
Lockhart A-17	3	H	17	21S	37E	7-13-75	P	NA	--	13	24	9	36.0	13	15	1154
<u>Drinkard</u>																
Lockhart A-17	3	H	17	21S	37E	5-2-72	SI	NA	--	NA	24	0	38.2	9	51	5667

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.

Exhibit #4  
5545

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

Paul J. Downing  
(Signature)  
Commissioner  
(Title)  
8-2-75  
(Date)

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

C-115  
Revised 1-1-65

Operator <b>Continental</b>		Pool <b>Drinkard and Skelly Penrose Grayburg</b>					County <b>Lea</b>									
Address <b>P. O. Box 460 Hobbs, New Mexico</b>							TYPE OF TEST - (X) <input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Completion <input type="checkbox"/> Special <input type="checkbox"/>									
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	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.	
<u>Penrose-Skelly (Grayburg)</u>																
Lockhart A-17	3	H	17	21S	37E	7-13-75	P	NA	--	13	24	9	36.0	13	15	1154
<u>Drinkard</u>																
Lockhart A-17	3	H	17	21S	37E	5-2-72	SI	NA	--	NA	24	0	38.2	9	51	5667

**BEFORE EXAMINER STAMETS  
OIL CONSERVATION COMMISSION**

EXHIBIT NO. 4

CASE NO. 5545

Submitted by Canolo

Hearing Date 8-22-75

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.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

8-22-75  
(Date)

CASE 5496: (Continued & Readvertised)

Application of Mesa Petroleum Co. for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox location to test the Pennsylvanian formation for its Nash Unit Well No. 2, to be located 1350 feet from the North line and 1300 feet from the West line, or in the alternative, 1350 feet from the North line and 1980 feet from the West line of Section 18, Township 23 South, Range 30 East, Eddy County, New Mexico.

CASE 5497: (Continued & Readvertised)

Application of Mesa Petroleum Co. for creation of two gas pools and special rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Strawn gas pool and a new Morrow gas pool for its Nash Unit Well No. 1, located in Unit H of Section 13, Township 23 South, Range 29 East, Eddy County, New Mexico, and the promulgation of special pool rules therefor, including a provision for 640-acre spacing units.

CASE 5544: Application of Continental Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Southeast Monument Unit Well No. 96 to be located 1650 feet from the South line and 990 feet from the East line of Section 23, Township 20 South, Range 37 East, Cass-Pennsylvanian Pool, Lea County, New Mexico.

CASE 5545: Application of Continental Oil Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Drinkard and Penrose Skelly production in the wellbore of its Lockhart A-17 Well No. 3, located in Unit H of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 5546: Application of Navajo Refining Company for compulsory pooling and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the S/2 of Section 30, Township 17 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox gas well location either 660 feet from the South and West lines, or 1980 feet from the South line and 660 feet from the West line of said Section 30. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of the applicant as the operator of the well and a charge for the risk involved in drilling said well.

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. 5545

Order No. R- 5088

RLS  
APPLICATION OF CONTINENTAL OIL COMPANY  
FOR DOWNHOLE COMMINGLING, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 27,  
19 75, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this day of September, 19 75, 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, Continental Oil Company, is the  
owner and operator of the Lockhart A-17 Well No. 3, located  
in Unit H of Section 17, Township 21 South, Range  
37 East, NMPM, Lea County, New Mexico.

(3) That the applicant seeks authority to commingle  
Drinkard and Penrose Skelly production  
within the wellbore of the above-described well.

(4) That from the Drinkard zone, the  
subject well is capable of low marginal production only.

(5) That from the Penrose Skelly zone, the  
subject well is capable of ~~low~~ marginal production only.

(6) That the proposed commingling may result in the recovery  
of additional hydrocarbons from each of the subject pools, thereby  
preventing waste, and will not violate correlative rights.



Case No. \_\_\_\_\_  
Order No. R- \_\_\_\_\_

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Hobbs district office of the Commission any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 50 percent and 70 percent of the commingled oil and gas production, respectively, should be allocated to the Drinkard zone, and 50 percent and 30 percent of the commingled oil and gas production, respectively, to the Penrose Skelly zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to commingle Drinkard and Penrose Skelly production within the wellbore of the Lockhart A-17 Well No. 3, located in Unit H of Section 17, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

(2) That 50 percent and 70 percent of the commingled oil and gas production, respectively, shall be allocated to the Drinkard zone and 50 percent and 30 percent of the commingled oil and gas production, respectively, shall be allocated to the Penrose Skelly zone.

(3) That the operator of the subject well shall immediately notify the Commission's Hobbs district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

(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.