

CASE NO. 5347 Appli. CONTINENTAL
OIL COMPANY, downhole commingling
Lea County, New Mexico

CASE No.

5347

Application,
Transcripts,
Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 16, 1974

EXAMINER HEARING

IN THE MATTER OF:)
)
)

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

CASE
5347

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 Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For Continental Oil Co.:

Jason Kellahin, Esq.
KELLAHIN & FOX
500 Don Gaspar
Santa Fe, New Mexico

I N D E X

Page

VICTOR T. LYON

Direct Examination by Mr. Kellahin

3

Cross Examination by Mr. Stamets

7

E X H I B I T S

Page

Exhibits 1 through 3

7

LYON-DIRECT

CASE 5347

Page.....3.....

MR. STAMETS: We will call the next Case, 5347.

MR. CARR: Case 5347, application of Continental Oil Company for downhole commingling, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, may the record show the same appearances and that the witness has been sworn.

MR. STAMETS: The record will so show.

MR. KELLAHIN: May the record also show that the witness is qualified?

MR. STAMETS: Yes, the record will show.

VICTOR T. LYON

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Lyon, are you familiar with the application of Continental Oil Company in Case 5347?

A Yes, I am.

Q What is proposed by the applicant in this Case?

A Case 5347 is the application of Continental Oil Company for authority to commingle in the wellbore production from the West Warren-Blinebry and the East Skaggs-Drinkard Pools in its SEMU Berger Well No. 21, located in Unit O of

THE NYE REPORTING SERVICE
STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501
TEL. (505) 982-0386

Section 19, Township 20 South, Range 38 East, Lea County,
New Mexico.

Q Referring to what has been marked as Exhibit 1,
would you identify that exhibit, please?

A Exhibit No. 1 is a plat showing the well and the
surrounding area. The heavy dashed line shows the boundary
of the Southeast Monument Unit. The well under question here
is circled and is shown to be located 660 feet from the
south line, 1980 feet from the east line of Section 19,
Township 20 South, Range 37 East. All of the acreage within
this unit, I might add, is of common ownership.

Q I believe you said 37 East; do you mean 38 East?

A You're right, 38 East is correct.

Q Now, referring to what has been marked as Exhibit
No. 2, would you identify that exhibit, please?

A Exhibit No. 2 is a copy of the sidewall neutron
porosity log which was run in this well, and it specifically
shows the sections, the two formations which are involved,
which are opened to production in this well.

Q Are those zones perforated?

A Yes, they are. The overall intervals are shown
by the arrows and the lines joined in the center section of
the log.

Q Now, referring to what has been marked as Exhibit 3, would you identify that exhibit, please?

A Exhibit 3 is a C-116 showing the most recent tests on the two zones in this well. The Blinebry was tested September 7th, 1974 at a rate of 23 barrels of oil, 23 barrels of water, 120 mcf gas, a gas-oil-ratio of 5,217. The Drinkard was tested February 16th, before the Blinebry was opened, at a rate of 34 barrels of oil, no water, 91 mcf gas, the gas-oil-ratio 2676. In January the well was entered and both wells were stimulated. Up to that time the Drinkard had produced only gas and this pool that I mentioned, the East Skaggs-Drinkard, was established as a gas pool. After the stimulation treatment the well began to produce oil, and the producing rates of the two zones are expected to decline within a very few months, so that it would be eligible at that time for administrative approval for downhole commingling. The bottomhole pressure in the Drinkard was measured May 29th at 1622 pounds per square inch. The Blinebry was measured July 8th at 982 pounds per square inch. The Drinkard had been shut in 6 days at that time, and the Blinebry had been shut in about four-and-a-half days at the time it was measured. At the producing rate that the two zones exhibit it isn't economically feasible to

re-run both strings of tubing with the packer and other equipment needed to segregate the zones, and the granting of this application would permit the extended life of both zones, so that the well could produce more crude and at economical rates, and I don't believe there would be any impairment of correlative rights.

Q Is the ownership of both zones the same?

A Yes, they are. Now, this well is not in the participating area for either zone, so that the production is credited to the lease on which the well is located, that is the reason the well is identified as SEMU Berger. It goes with that Berger A lease.

Q Now, how would you recommend allocation of production from the two zones be made?

A Based on the producing history that we have at this time, we recommend that 40 percent of the oil be allocated to the Blinebry, and 60 percent to the Drinkard. The gas indicates that these percentages should be reversed, 60 percent allocated to Blinebry, 40 percent to the Drinkard.

Q I believe that your Exhibit No. 3 reflects that the gravities of the oil are identical?

A Yes.

Q Are there any substantial differences in the gas

LYON-DIRECT
-CROSS

CASE 5347
Page.....7.....

characteristics?

A No, the characteristics of the fluids in both zones are very similar, and, in fact, they are commingled very prevalently throughout this area.

Q Were Exhibits 1 through 3 prepared by you, or under your supervision?

A Yes, they were.

MR. KELLAHIN: I would like to offer into evidence Exhibits 1 through 3, inclusive.

MR. STAMETS: The exhibits will be admitted.
(Whereupon, Exhibits 1 through 3, inclusive, were admitted into evidence.)

MR. KELLAHIN: That's all we have on direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q Did you indicate that the Drinkard zone had formerly been a gas pool?

A Yes.

Q It was the East Skaggs-Drinkard Gas?

A Right.

Q How many wells are there in that pool?

A One. That was an an anomalous situation we still
— can't explain.

Q Have you had any production tests on this -- well, any extended production tests since the workover and conversion to oil?

A On the Drinkard?

Q Yes.

A No, shortly after that stimulation treatment then it had obviously turned to oil we worked on the Blinebry and the Drinkard hasn't been produced since that time.

Q How about the Blinebry, do you have a production test on that to show a production decline?

A No, I did not review all the test data on the Blinebry in this well. I requested that they provide me with the latest tests. I can send you a tabulation of the test data, if you would like it for your record.

Q It could be helpful. In this kind of penciling at this it would appear as though you've got about 57 barrels a day of production; we're talking about something like \$250 a day income; \$7500 a month, if you got \$10 for that oil that would just about double that 15 thousand dollars a month, that hardly seems to come under the category of very low marginal, which is what we are usually looking at when we are talking about downhole commingling.

A Right, the basis for my statement is that we

expect this to decline pretty sharply, so that although there wouldn't be any difficulty paying for the equipment, we feel that it would be just a very short time before we would be back in with an administrative request to down-hole commingle.

Q Do you know of any evidence in other Blinebry or Drinkard pools in the area which would confirm your opinion in this?

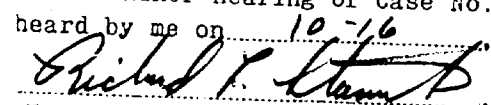
A Well, just most of the wells that we've been drilling to these two formations in this area have come in at reasonably low rates and exhibited a sharp decline until they stabilized at a rate that is within the administrative approval area. And, of course, there are numerous applications in these two formations in the Drinkard pool and the Blinebry pool that indicate the same thing that the bottom-hole pressure has declined to the extent that flush production is no longer there.

MR. STAMETS: Any other questions of this witness? You may be excused. Anything further in this Case? We will take the Case under advisement.

STATE OF NEW MEXICO)
) SS.
COUNTY OF SANTA FE)

I, SIDNEY F. MORRISH, 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. 5347
heard by me on 10-16 1974

Richard L. Stamm, Examiner
New Mexico Oil Conservation Commission

THE NYE REPORTING SERVICE
STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501
TEL. (505) 982-0385



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

I. R. TRUJILLO
CHAIRMAN

**LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER**

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

November 12, 1974

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

Re: CASE NO. 5346, 5347, 5348
ORDER NO. R-4912, R-4913 & R-4914
Applicant:
Continental Oil Company

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC	<u> x </u>
Artesia OCC	<u> </u>
Aztec OCC	<u> </u>

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. 5347
Order No. R-4913

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 October 16, 1974, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 12th day of November, 1974, 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 SEMU Burger Well No. 21, located in Unit O of Section 19, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico.

(3) That the applicant seeks authority to commingle West Warren-Blinebry and East Skaggs-Drinkard production within the wellbore of the above-described well.

(4) That from the West Warren-Blinebry zone, the subject well is capable of marginal production only.

(5) That from the East Skaggs-Drinkard 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. 5347
Order No. R-4913

(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, 67 percent of the commingled production should be allocated to the West Warren Blinebry zone, and 33 percent of the commingled production to the East Skaggs-Drinkard zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to commingle West Warren-Blinebry and East Skaggs-Drinkard production within the wellbore of the SEMU Burger Well No. 21, located in Unit 0 of Section 19, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico.

(2) That 67 percent of the commingled production shall be allocated to the West Warren-Blinebry zone and 33 percent of the commingled production shall be allocated to the East Skaggs-Drinkard 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.

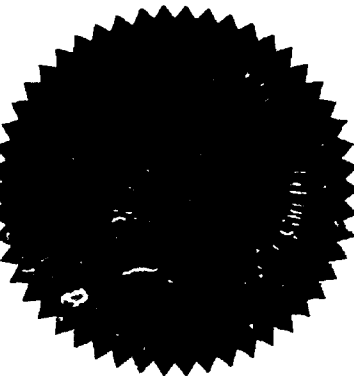
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


I. R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member


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



S E A L
jr/

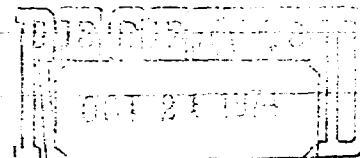
SEMU BURGER #21

Drinkard	Date	Oil	Wt	Gas	GOR
2-9-74	50	0	90	1800	
2-14	36	6	79	2194	
2-24	31	0	89	2871	
4-19	5	3	55	11000	

1/3

Blinebry	5-20	25	27	100	4000
	5-22	23	24	111	4550
	6-12	17	12	70	4118
	6-24	12	16	110	9167
	8-11	10	15	105	10500
	10-7	11	12	100	9091

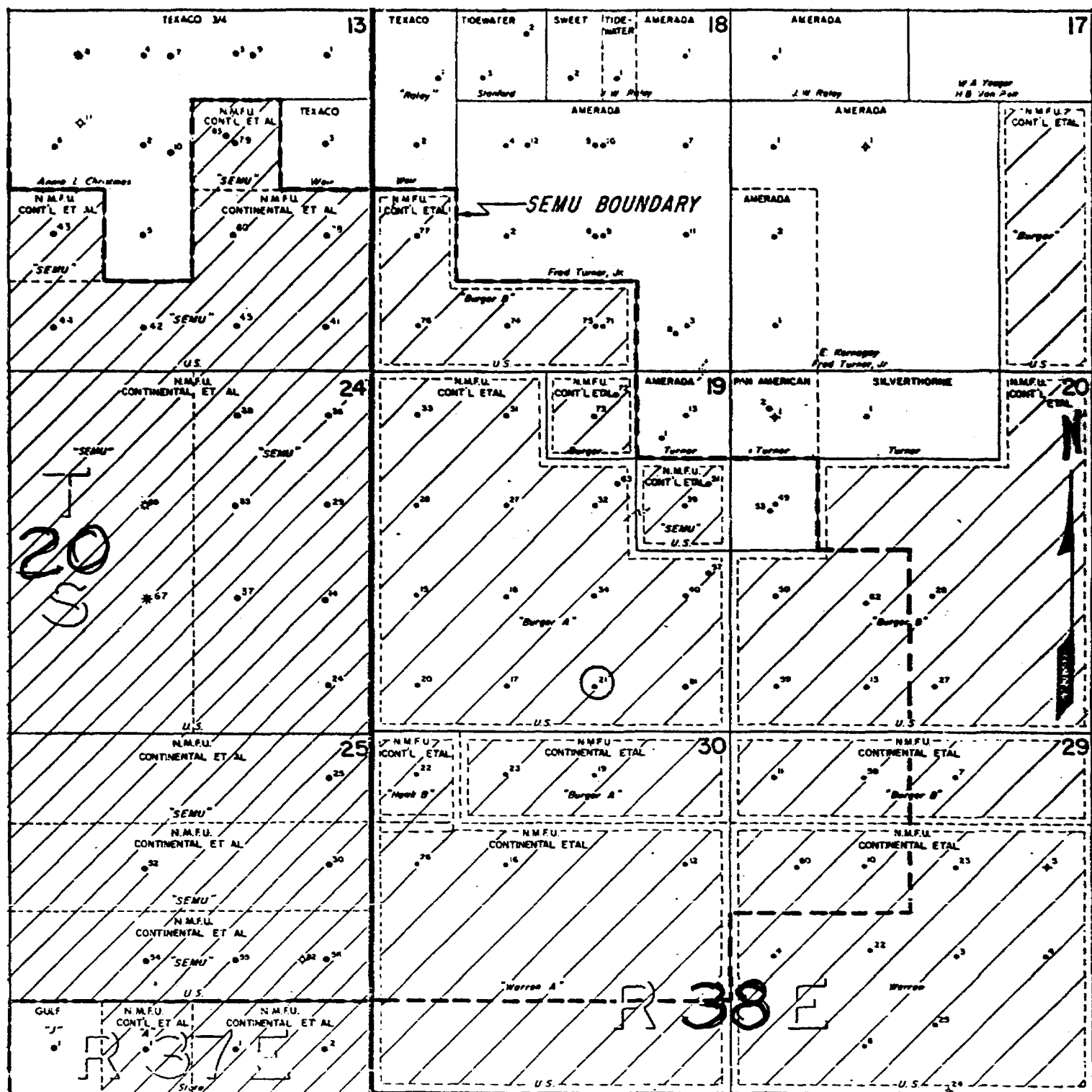
2/3



OIL CONSERVATION COMM.
S. 100 60

602

151
1000
417



○ SEMU NO. 21

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DIVISION

LOCATION PLAT
SEMU EASTERN AREA
LEA COUNTY, NEW MEXICO
SCALE: 1" 2000'

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION

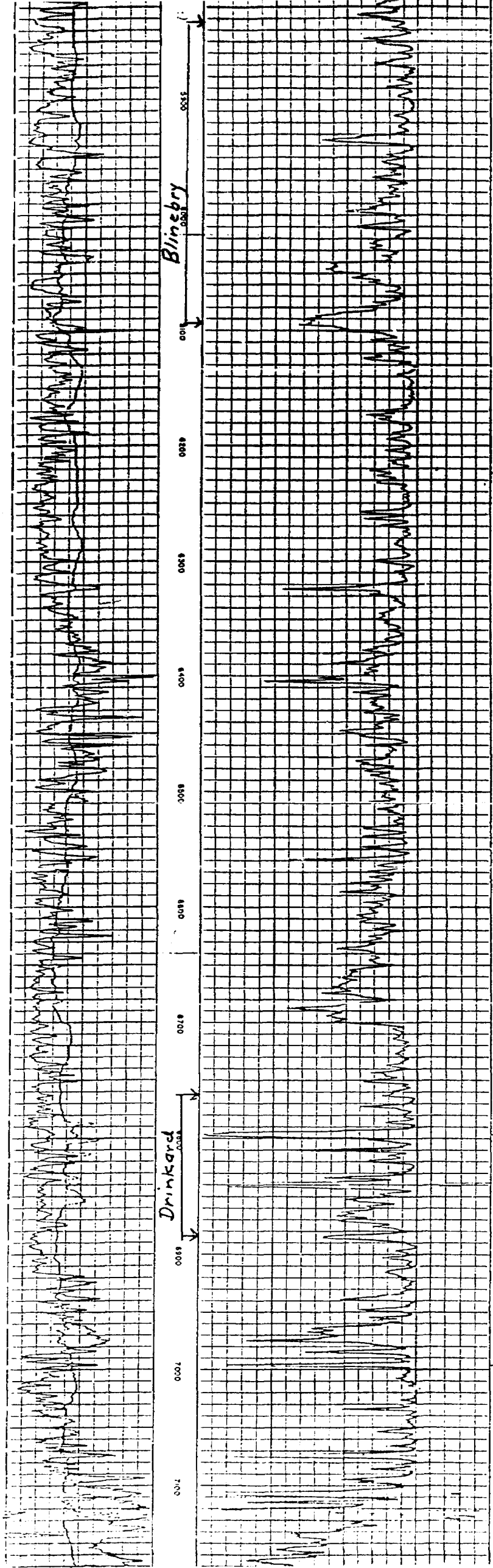
CONOCO EXHIBIT NO. 1

CASE NO. 5347

Submitted by CONOCO

Hearing Date 10-16-74

Sidewall Neutron
Porosity Log
Continental Oil Co.
SENU Burger No. 21
O-19-20S-38E



BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 53471
Submitted by Leadsco
Hearing Date 10-16-74

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

C-116
Revised 1-1-65

Operator Continental Oil Company				Pool Blinebry and Drinkard				County Lea								
Address P. O. Box 460, Hobbs, NM 88240							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 ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL.
		U	S	T	R							WATER BBL.	GRAV. OIL	OIL BBL.	GAS M.C.F.	
<u>Blinebry</u> SEMUR Burger <i>E Shoggs</i> <u>Drinkard</u> <i>gas</i>	21	0	19	20S	38E	9-7-74	P	open	N-A	4	24	23	37.9	23	120	5217
SEMUR Burger	21	0	19	20S	38E	2-16-74	SI	open	N-A	N-A	24	0	37.9	34	91	2676

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION

EXHIBIT NO. 3

CASE NO. 5347

Submitted by CONOCO

Hearing Date 10-16-74

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)

Administrative Supervisor

(Title)

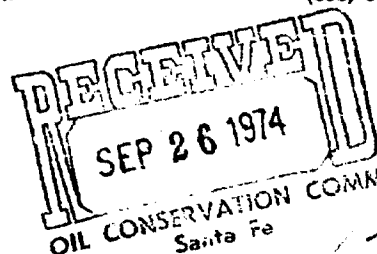
September 20, 1974

(Date)



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

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141



September 24, 1974

Case 5-347

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

Attention Mr. A. L. Porter, Jr., - Secretary-Director

Gentlemen:

Applications for Downhole Commingling - October 16, 1974 Examiner Docket

Enclosed in triplicate are applications for downhole commingling of Blinbry and Drinkard Oil in our Elliott B No. 6, Lockhart B-1 No. 9, Warren Unit No. 11 and SEMU No. 21 wells. Please set these matters for hearing on the October 16, 1974 Examiner Docket.

Yours very truly,

VTL:pc

Enc.

cc: Amoco Production Company
P. O. Box 367
Andrews, Texas 79714

Atlantic Richfield Company
P. O. Box 1710
Hobbs, New Mexico 88240

Chevron Oil Company
P. O. Box 1660
Midland, Texas 79701

JCC: FOH: JWK

DOCKET M 1120

Date 10-4-74

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 PRODUCTION FROM THE
WEST WARREN BLINEBRY AND EAST
SKAGGS DRINKARD POOLS IN ITS
SEMU BURGER WELL NO. 21 LOCATED
IN UNIT 0, SECTION 19, T-20S,
R-38E, LEA COUNTY, NEW MEXICO

Case 2-347

APPLICATION

Applicant, Continental Oil Company, hereby requests authority to commingle in the wellbore oil production from the West Warren Blinebry and East Skaggs Drinkard pools in its SEMU Burger Well No. 21 located in Unit 0, Section 19, T-20S, R-38E, Lea County, New Mexico and in support thereof would show:

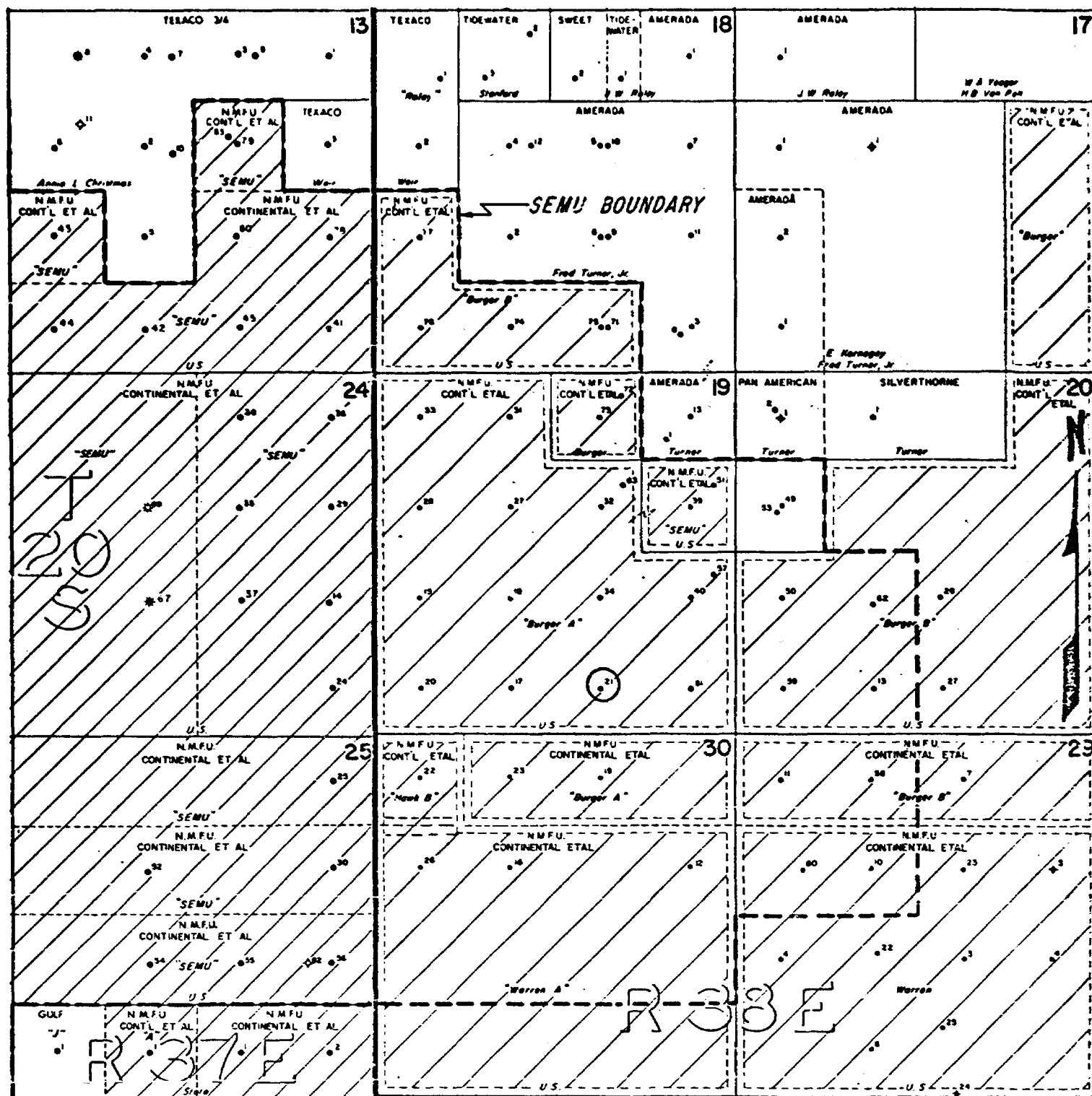
1. Applicant is the operator and co-owner of the Southeast Monument Unit in Township 20 South, Ranges 37 and 38 East, Lea County, New Mexico.
2. Applicant drilled its SEMU No. 21 at a location 660' FSL and 1980' FEL of Section 19, T-20S, R-38E, Lea County, New Mexico and completed it June 26, 1950, as a Grayburg well in the Skaggs Pool.
3. In 1969, said well No. 21 was deepened and completed as an oil well in the West Warren Blinebry Pool and the East Skaggs Drinkard Gas Pool as a dual completion authorized by Order No. R-3900.
4. Said well No. 21 was recently stimulated in the Drinkard formation with the result that the Drinkard now produces approximately 35 barrels of oil per day with a gas-oil ratio of approximately 3,000 cubic feet per barrel.
5. Commingling the production of both zones will prolong the producing life of the well, increase the ultimate recovery of oil and will conserve tubular goods without impairing the correlative rights of any party.

WHEREFORE, Applicant respectfully requests that this matter be set for hearing before the Commission's duly appointed examiner and upon hearing an order be entered authorizing the commingling in the wellbore of the production from SEMU Burger Well No. 21 as described above.

Respectfully submitted,

CONTINENTAL OIL COMPANY

L. P. Thompson
L. P. Thompson
Division Manager



○ SEMU NO. 21

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
HOBBS DIVISION

LOCATION PLAT
SEM U EASTERN AREA
LEA COUNTY, NEW MEXICO
SCALE: 1" 2000'

5-347

DRAFT

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

dr/

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

CASE NO. 5347

Order No. R-4913

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 Oct 16, 1974
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this Oct day of Oct, 1974 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 SEMU Burger Well No. 21, located in
Unit 0 of Section 19, Township 20 South, Range 38 East, NMPM,
Lea County, New Mexico.

(3) That the applicant seeks authority to commingle West Warren-Blinebry and East Skaggs-Drinkard production within the wellbore of the above-described well.

(4) That from the West Warren-Blinebry zone, the subject well is capable of ~~10~~ marginal production only.

(5) That from the East Skaggs-Drinkard zone, the subject well is capable of ~~10~~ 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.

(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, 2067 percent of the commingled ~~1000~~ production should be allocated to the West Warren Blinebry zone, and 33 percent of the commingled ~~1000~~ production to the East Skaggs-Drinkard zone,

IT IS THEREFORE ORDERED:

(1) That the applicant, Continental Oil Company, is hereby authorized to commingle West Warren-Blinebry and East Skaggs-Drinkard production within the wellbore of the SEMU Burger Well No. 21, located in Unit 9 of Section 19, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico.

-3-

CASE NO. 5206

Order No. R-

(2) That 67 percent of the commingled ~~ann~~ production shall be allocated to the West Warren-Blindery zone and 33 percent of the commingled ~~ann~~ production shall be allocated to the East Skaggs-Drinkard 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 herein-
above designated.