

CASE 1100: Application of CONFIDENTIAL  
for an exemption to Rule 26 (c) of  
Order No. 2-1079.

Case No.

2188

Application, Transcript,  
Small Exhibits, Etc.

DOCKET: EXAMINER HEARING - THURSDAY, FEBRUARY 23, 1961

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

The following cases will be heard before Elvis A. Utz, Examiner, or Oliver E. Payne, attorney, as alternate examiner:

CASE 2193:

Application of Newmont Oil Company for two unorthodox oil well locations and for one unorthodox location for an injection well. Applicant, in the above-styled cause, seeks approval for two unorthodox oil well locations, and for one unorthodox water injection well location in the Loco Hills Waterflood Project, Eddy County, New Mexico. The proposed locations for the producing wells and injection well are respectively as follows:

Yates A No. 14 Well, 1980 feet from the North line and 1310 feet from the East line of Section 6, Township 18 South, Range 30 East.

Brigham No. 5 Well, 1320 feet from the South line and 990 feet from the East line of Section 31, Township 17 South, Range 30 East.

Brigham No. 4 Well, 1320 feet from the South line and 5 feet from the East line of Section 31, Township 17 South, Range 30 East.

CASE 2187:

Application of Continental Oil Company for a 400-acre non-standard gas proration unit. Applicant, in the above-styled cause, seeks the establishment of a 400-acre non-standard gas proration unit in the Eumont Gas Pool comprising the W/2 of Section 26, the E/2 E/2 of Section 27, and the E/2 SE/4 of Section 22, all in Township 20 South, Range 37 East, Lea County, New Mexico. Said unit is to be dedicated to the SEMU Eumont Well No. 65, located 2363 feet from the South line and 0 feet from the West line of said Section 26.

CASE 2188:

Application of Continental Oil Company for an exception to Rule 26 (a) of Order No. R-1670. Applicant, in the above-styled cause, seeks an exception to Rule 26 (a) of Order No. R-1670 for the reclassification to a Tubb gas well of its State 10 Well No. 3-D, located 990 feet from the North line and 840 feet from the West line of Section 10, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

CASE 2189: Application of Continental Oil Company for two non-standard gas proration units. Applicant, in the above-styled cause, seeks the establishment of two non-standard gas proration units in the Eumont Gas Pool, Lea County, New Mexico, the first being a 480-acre unit consisting of the S/2 and NE/4 of Section 24 to be dedicated to the SEMU Eumont Well No. 67 located 1980 feet from the South and West lines of said Section 24 and the second being a 280-acre unit consisting of the NW/4 of said Section 24 and the S/2 and NW/4 SW/4 of Section 13 to be dedicated to the SEMU Eumont Well No. 69, located 1980 feet from the North and West lines of Section 24, all in Township 20 South, Range 37 East.

CASE 2190: Application of Continental Oil Company for a 560-acre non-standard gas proration unit. Applicant, in the above-styled cause, seeks the establishment of a 560-acre non-standard gas proration unit in the Eumont Gas Pool consisting of the W/2 of Section 14, the E/2 E/2 of Section 15 and the E/2 NE/4 of Section 22, Township 20 South, Range 37 East, Lea County, New Mexico. Said unit is to be dedicated to the SEMU Eumont Well No. 66, located 1980 feet from the South line and 660 feet from the West line of said Section 14.

CASE 2191: Application of Continental Oil Company for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to install an automatic custody transfer system to handle the Empire-Abo Pool production from all wells presently completed or hereafter drilled on its State S-30 lease comprising in pertinent part the NW/4 and NW/4 SW/4 of Section 30, Township 17 South, Range 29 East, Eddy County, New Mexico.

CASE 2192: Application of Amerada Petroleum Corporation for permission to commingle the production from two separate leases. Applicant, in the above-styled cause, seeks permission to commingle the Blinebry Oil Pool production from all wells presently completed or hereafter drilled on its State "D" lease, consisting of the NW/4 and its State "H" lease, consisting of the W/2 SE/4, both in Section 1, Township 20 South, Range 36 East, Lea County, New Mexico.

CASE 2194: Application of Sunray Mid-Continent Oil Company for an oil-oil dual completion utilizing two strings of casing.

CASE 2194: (Cont.)

Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State "Y" Well No. 2, located in Unit A, Section 32, Township 18 South, Range 31 East, Eddy County, New Mexico, in such a manner as to permit the production of oil from the Culwin-Yates Pool and the production of oil from the North Shugart Queen-Grayburg Pool through parallel strings of 2 7/8-inch casing cemented in a common well bore.

CASE 2195:

Application of Gulf Oil Corporation for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to install an automatic custody transfer system to handle the production from an undesignated Abo pool from all wells presently completed or hereafter drilled on the Lea-State "LB" Lease comprising the NW/4, N/2 SW/4 and SW/4 SW/4 of Section 20, Township 17 South, Range 36 East, Lea County, New Mexico.

CASE 2196:

Application of Gulf Oil Corporation for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks permission to commingle, without separate metering, the production from the Drinkard and Langlie-Mattix Pools from all wells presently completed or hereafter drilled on the Ollie I. Boyd Lease, comprising the S/2 SW/4, NE/4 SW/4 and SW/4 SE/4 of Section 23, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 2197:

Application of Tennessee Gas and Oil Company for the promulgation of temporary special rules and regulations governing the Totah-Gallup Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating temporary special rules and regulations governing the Totah-Gallup Pool, San Juan County, New Mexico, including a provision for 80-acre proration units.

CASE 2198:

Application of H. S. Moss for permission to commingle the production from three separate pools and for an automatic custody transfer system. Applicant, in the above-styled cause, seeks permission to commingle the production from the Southwest Gladiola-Wolfcamp Pool, the Southwest Gladiola-Devonian Pool and an undesignated Pennsylvanian Pool from all wells presently completed or hereafter drilled on its D. P. Peck Lease comprising the W/2 of Section 26, Township 12 South Range 37 East, Lea County, New Mexico.

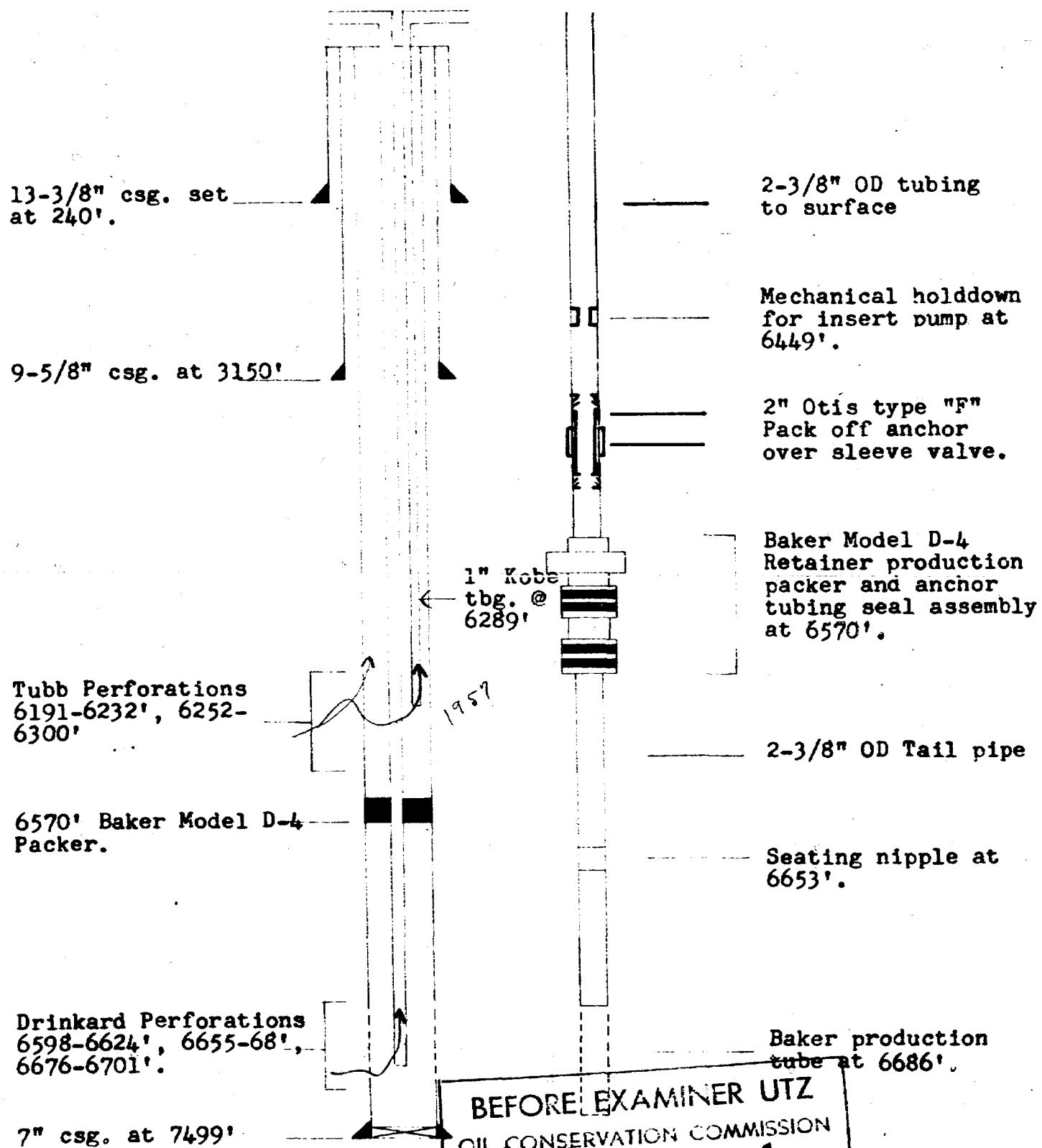
-4-

Docket No. 6-61

CASE 2198: (Cont.)

Applicant further seeks permission to install an automatic custody transfer system to handle said commingled production.

CONTINENTAL OIL COMPANY  
PRESENT DUAL COMPLETION INSTALLATION  
STATE 10 NO. 3-D



BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
*Out* EXHIBIT NO. 2  
CASE NO. 2188

Exhibit No. 2



1000 FEB 1 1961  
**CONTINENTAL OIL COMPANY**

825 PETROLEUM BUILDING  
ROSWELL, NEW MEXICO

January 25, 1961

WM. A. MEAD  
DIVISION SUPERINTENDENT  
OF PRODUCTION  
NEW MEXICO DIVISION

*Case 2188*

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

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

Gentlemen:

Re: APPLICATION OF CONTINENTAL OIL  
COMPANY FOR AN EXCEPTION TO  
RULE 26 (a) OF THE SPECIAL RULES  
AND REGULATIONS FOR THE TUBB GAS  
POOL CONTAINED IN ORDER NO. R-1670  
FOR THE RECLASSIFICATION TO A TUBB  
GAS WELL OF ITS STATE 10 NO. 3-D,  
LOCATED IN SECTION 10, T21S, R37E,  
NMPM, LEA COUNTY, NEW MEXICO

Please find attached three copies of the subject  
application by Continental Oil Company to reclassify its State 10  
No. 3-D to a Tubb gas well.

We respectfully request that this matter be set for  
hearing at your earliest convenience.

Yours very truly,

*W. A. Mead*

WAM-sk  
Attachment

*Rechecked  
Mailed  
2-10-61  
JL*

NEERING IN PETROLEUM PROGRESS SINCE 1875





DAYTON, OHIO, U.S.A.

500-600  
350-400

DATE	HOURS	BARKER'S OIL	BARKER'S WATER	WATER (WT)	GOR	GRAVITY
✓ 2-10-61	24	123 -	7	912-	7,902	39.8
✓ 2-11-61	24	51	7	940	18,431	41.0
✓ 2-12-61	24	64	9	960	15,000	41.4
✓ 2-13-61	24	70	7	947	13,528	40.6
✓ 2-14-61	24	60	7	949	15,317	40.8
✓ 2-15-61	24	50 -	7	973-	16,776	40.6
✓ 2-16-61	24	61	7	953	15,623	-
✓ 2-17-61	24	58	6	953	16,431	-
✓ 2-18-61	24	52	8	947	18,211	42.7
✓ 2-19-61	24	53	8	953	17,648	
✓ 2-20-61	24	53	8	900	16,364	42.9

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
Case EXHIBIT NO. 3  
CASE NO. 2188

Exhibit No. 3

GOVERNOR  
EDWIN L. MECHEM  
CHAIRMAN

State of New Mexico  
**Oil Conservation Commission**

LAND COMMISSIONER  
E. S. JOHNNY WALKER  
MEMBER



P. O. BOX 871  
SANTA FE

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

March 23, 1961

Mr. Jason Kellahin  
Kellahin & Fox  
Box 1713  
Santa Fe, New Mexico

Re: Case No. 2188  
Order No. 2-1909  
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

ir/

Carbon copy of order also sent to:

Hobbs OCC ☒  
Artesia OCC ☐  
Aztec OCC ☐

OTHER ☐

Case 2188

Heard 2-28-61

Rec. 3-8-61

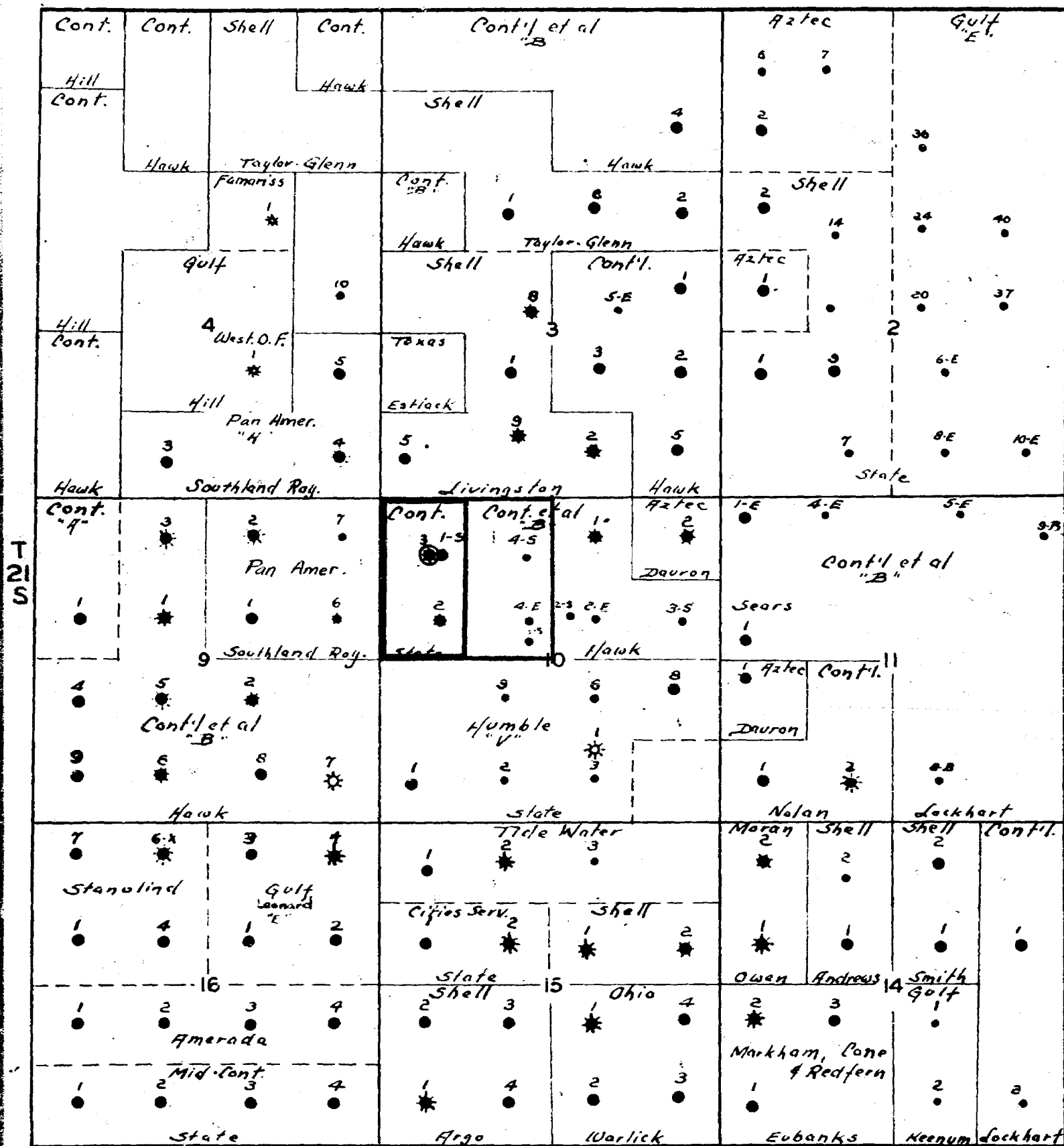
1. Rec. Denial of Cont. case to reclassify this state 10 #315, 980/N, 840/W 10-215-37E from an oil well to a gas well, an exception to Rule 26(A) of R-1670.
2. Testimony revealed that on Test. the well produced at a <sup>oil</sup> ~~max.~~ G.P.R. of 18,211 with a ~~maximum~~ <sup>oil</sup> of 42.9. A well of these characteristics is normally considered to be an ~~oil~~ oil well in any pool in H. The.
3. The operational problem can be remedied according to testimony by installing 2" tubing for ~~well~~ <sup>well</sup> production.

Thudt H.

P.S. The operator could increase production from the well by classification as a gas well.

THD

R-37-E



CONTINENTAL OIL COMPANY

Lease Boundary — Gas Proration Unit — State 10 No.3 ○

Case 2188

7. That in order to continue commercial production, applicant proposes to reclassify the well as a gas well and restore its former 160-acre gas proration unit for proration purposes.

8. That the granting of this exception is in the interest of preventing waste and protecting correlative rights.

Wherefore, applicant respectfully prays that this matter be set for hearing before the Commission's duly appointed examiner, that appropriate notice thereof be given and that upon hearing, an order be entered granting applicant an exception to Rule 26 (A) of the special rules and regulations for the Tubb Gas Pool, contained in Order R-1670, as described above.

Respectfully Submitted,

CONTINENTAL OIL COMPANY

*W. A. Mead*

Wm. A. MEAD  
Division Superintendent  
of Production  
New Mexico Division

WAM-DFW

RECEIVED

New Mexico Division

JAN 23 1960

BEFORE THE OIL AND GAS COMMISSION

STATE OF NEW MEXICO

CH 1 20

IN THE MATTER OF THE APPLICATION  
OF CONTINENTAL OIL COMPANY FOR AN  
EXCEPTION TO RULE 26 (A) OF THE  
SPECIAL RULES AND REGULATIONS FOR  
THE TUBB GAS POOL CONTAINED IN  
ORDER NO. R-1670 FOR THE RE-  
CLASSIFICATION TO A TUBB GAS WELL  
OF ITS STATE 10 NO. 3-D, LOCATED  
IN SECTION 10, T-21S, R-37E, NMPM,  
LEA COUNTY, NEW MEXICO

Case 2188

### A P P L I C A T I O N

Comes now applicant, Continental Oil Company, and re-  
quests exception to Rule 26 (A) of the special rules and regula-  
tions for the Tubb Gas Pool, contained in Order R-1670, for the  
reclassification to a Tubb gas well of its State 10 No. 3-D, lo-  
cated in Section 10, T-21S, R-37E, NMPM, Lea County, New Mexico,  
and in support thereof would show:

1. That applicant is the operator and co-owner of the  
State 10 Lease, consisting of the W/2 NW/4 Section 10, T-21S, R-37E,  
Lea County, New Mexico.

2. That applicant drilled its No. 3-D well on said  
lease at a location 990 feet from north line and 840 feet from  
west line of said Section 10, in 1953, and dual completed said well  
in the Drinkard and Tubb formations on May 5, 1955.

3. That a standard 160-acre gas proration unit consist-  
ing of NW/4 of said Section 10 was established for said well on  
September 15, 1955.

4. That the Tubb completion of the said well was re-  
classified as a Tubb oil well on September 18, 1959, at which time  
the well was producing with a low gas-oil ratio.

5. That the well is currently producing liquids rang-  
ing in gravity from 42 to 45 degrees A.P.I., with a gas-oil ratio  
of approximately 20,000 cu. ft. per barrel.

6. That the producing characteristics of said well are  
such that it is incapable of commercial production under an oil  
well classification.

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. 2188  
Order No. R-1909

APPLICATION OF CONTINENTAL OIL  
COMPANY FOR AN EXCEPTION TO  
RULE 26(A) OF ORDER NO. R-1670,  
TUBB GAS POOL, LEA COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 23, 1961, at Santa Fe, New Mexico, before Elvis A. Uta, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 22nd day of March, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Uta, 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 State 10 Well No. 3-D, located 990 feet from the North line and 840 feet from the West line of Section 10, Township 21 South, Range 37 East, N40N, Lea County, New Mexico, which well is a dual completion in the Drinkard Pool and the Tubb Gas Pool produced through 2 3/8-inch and 1-inch tubing respectively.

(3) That the applicant seeks the reclassification of said State 10 Well No. 3-D from an oil well to a gas well as an exception to Rule 26(A) of the rules governing the Tubb Gas Pool as set forth in Order No. R-1670.

(4) That said Order No. R-1670 provides that a well in the Tubb Gas Pool which produces hydrocarbons possessing a gravity of 45° API or less shall be classified as an oil well.

(5) That during daily tests taken on the subject well in



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CASE No. 2188  
Order No. R-1909

February, 1961, the highest gravity reflected was 42.9° API and the highest gas-oil ratio was 18,431.

(6) That the characteristics of the subject well as reflected by the daily tests are those generally possessed by an oil well.

(7) That the applicant's problem in attempting to produce the subject well as an oil well is that it loads up with liquids when produced through 1-inch tubing.

(8) That the evidence establishes that no such problem is encountered when Tubb production is through 2 3/8-inch tubing.

(9) That reclassification of the subject well based on present conditions is very likely to impair correlative rights, and, for this reason, the subject application should be denied.

IT IS THEREFORE ORDERED:

That the applicant's request for reclassification of its State 10 Well No. 3-D (990 feet from the North line and 840 feet from the West line of Section 10, Township 21 South, Range 37 East, NMPH, Tubb Gas Pool, Lea County, New Mexico) from an oil well to a gas well as an exception to Rule 26(A) of Order No. R-1670 be and the same is hereby denied.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*E. L. Mechem*

EDWIN L. MECHEM, Chairman

*E. S. Walker*

E. S. WALKER, Member

*A. L. Porter, Jr.*

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

esr/

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
February 23, 1961

## EXAMINER HEARING

-----  
IN THE MATTER OF: )

Application of Continental Oil Company for an )  
exception to Rule 26 (a) of Order No. R-1670. )  
Applicant, in the above-styled cause, seeks an )  
exception to Rule 26 (a) of Order No. R-1670 for ) CASE  
the reclassification to a Tubbs gas well of its ) 2188  
State 10 Well No. 3-D, located 990 feet from the )  
North line and 840 feet from the West line of Sec- )  
tion 10, Township 21 South, Range 37 East, NMPM, )  
Lea County, New Mexico. )  
-----

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 2188.

MR. PAYNE: Case 2188: Application of Continental Oil  
Company for an exception to Rule 26 (a) of Order R-1670.

MR. KELLAHIN: Jason of Kellahin & Fox, Santa Fe, New  
Mexico, representing the Applicant. I will have one witness.

(Witness sworn.)

VICTOR E. LYON,

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

## DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Victor E. Lyon.

Q By whom are you employed and in what position?

A Continental Oil Company as District Engineer in Eunice,  
New Mexico.

Q Have you previously testified before the Oil Conser-  
vation Commission as a Petroleum Engineer?

A Yes.

MR. KELLAHIN: Witness' qualifications are acceptable?

MR. UTZ: Yes.

Q (By Mr. Kellahin) Mr. Lyon, you are familiar with the  
application of Continental Oil Company in Case 2188?

A Yes sir.

Q Would you state briefly what is proposed in this appli-  
cation?

A This is Continental Oil's application for an exception  
to Rule 26 (a) for the special rule and regulations for the Tubb  
gas Pool for the reclassification of its State 10 Well No. 3-D as  
a Tubb gas well.

Q What is the location of this well?

A It is located 990 feet from the North line and 840 feet  
from the West line of Section 10, Township 21 South, Range 37 East.

(Marked Applicant's Exhibit  
Numbers 1, 2 and 3 for  
identification.)

Q Referring to what has been made Exhibit Number 1, would  
you discuss that Exhibit?



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ALBUQUERQUE, NEW MEXICO

PHONE CH 3-6691

A Exhibit Number 1 is a location and ownership plat showing the State 10 lease on the surrounding area. It shows the State 10 lease outlined in red, and it shows the proration unit which had been assigned to the well which is outlined in green.

Q Is that a gas proration unit?

A Yes sir.

Q The area outlined in green?

A Yes sir, a standard gas proration unit.

Q You say the lease is outlined in red?

A Yes sir.

Q Has the acreage outlined in green been unitized for gas production from this well?

A Yes, it has.

Q Referring to what has been made as Exhibit Number 2, would you discuss that?

A It is a schematic diagram of the present application of this well. When it was originally dual-completed in 1955, it was completed in such a manner that the Drinkard oil production which produced through the two and three-eighths inch tube, and the Tubb gas production was produced through the tubing casing annulus. In 1957, it became apparent that the well was loading up with fluid. Therefore, we pulled the rods and pump out of the tubing for the production of the Drinkard and set a tubing valve and opened the sleeve valve to permit the Tubb gas production to be produced through the tubing. It was produced in this manner for several



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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

months. It became apparent that the tubing would enable the well to produce more efficiently. Therefore, in 1959, the well was killed, and one-inch tubing was installed as a syphon <sup>string</sup> strain. Then the well was swabbed off through the two-inch tubing, and an attempt was made to produce the well through the one-inch tubing. However, an accumulation of water in the well reservoir caused the one-inch tubing to load up completely so that it had insufficient pressure to produce. We continued production through the two-inch tubing for several additional months. After several months, we attempted again to produce the well through the one-inch tubing, and we were successful in doing so.

It was then decided to return the Drinkard forms to production, so we entered the well and attempted to close the sleeve valve; however, the seals on the sleeve valve failed, and it was necessary, after we had removed the tubing plug, to run a knot and Kobe Packer assembly. After we had installed this equipment, we ran a Packer leakage test which was successful, which indicated we had no communication between zones. We then installed a pump with mechanical holddown, and we are presently producing the Drinkard production through the two and three-eighths-inch tubing and the one-inch tubing.

MR. UTZ: Were they both flowing?

MR. LYON: No sir, the Drinkard was not.

Q (By Mr. Kellahin) Referring to what has been made as Exhibit Number 3, would you discuss that Exhibit?



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PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Exhibit Number 3 is a tabulation of well tests, data of which we have secured on 24 hour basis. At the last official gas survey, the well tested with the gas-oil ration of 20,000 cubic feet per barrel, and the limited gas-oil ration was such that the well's allowable was reduced to 6 barrels a day. At this rate of production, we are unable to keep the well unloaded. The gravity of the oil was such that we felt we needed test information too on which to base our recommendations to the Commission. We therefore requested permission to secure a testing allowable, and during the days listed on Exhibit Number 3, we tested the well, measured the oil, water, and gas and the gravity of the fluids collected on the Separator as Exhibit Number 3 indicates.

The gas-oil ration adds to 7,902 to 18,431. The liquid ranges from 39.8 to 42.9.

Q There has been a tendency of the apparent gravity for the liquid to increase?

A It fluctuates widely. The information which was used for the preparation of the application was based on the three most recent ones then available from runs from the tank or the pipeline. We have one for the liquid production which was running 45 degrees gravity.

Q You are familiar with the provisions of the Commission's Order R-1670, are you not?

A Yes sir.

Q What is the basis for the classification of an oil well



or gas well under that order?

A The gas well is a well with liquid hydrocarbons which have a gravity of not less than 45 degrees in API.

Q Then at the present time, with the gravity of 42.9, this could not without an exception be classified as a gas well, is that correct?

A That is right.

Q Has the well gone from a gas well classification to an oil well classification?

A Yes, it has.

Q Is this a situation which is common in this particular area?

A It is not wide spread, but it occurs fairly commonly throughout.

Q Has the Commission granted an exception similar to the one you are seeking here within the area of this well?

A It is my understanding that an exception was granted for their State No. 11 which is located on the lease directly south of our State 10.

Q If the application is not granted, in your opinion, will that result in waste from the reservoir?

A Yes, it will require either -- if we abandon the Drinkard so that we can produce through the two-inch tubes or tubing or the loading up of the Tubb Zone -- it will no longer produce.

Q Would that constitute a loss of gas at that reservoir?

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A And liquids, yes sir.

Q What kind of line pressure will you be producing into, Mr. Lyon?

A There is a 250 pound connection available.

Q Do you believe that the well will produce satisfactorily against a 250 pound line pressure?

A Yes, I do.

Q Will the well make its allowable on the 260-acre unit?

A During the test, which we have just conducted, the well produced at a rate of 890 MCF per day which is above the daily allowable for the Tubb Pool.

Q In the event the Commission grants that application, what volumes of liquids do you anticipate will be produced?

A Based on the information here, I would estimate the liquid production to be 30 to 35 barrels per day.

Q Were Exhibits 1, 2 and 3 prepared by you or under your supervision?

A Yes sir.

MR. KELLAHIN: At this time, I would like to offer in evidence Exhibits 1, 2 and 3.

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

MR. KELLAHIN: That is all the questions I have.

CROSS EXAMINATION

BY MR. UTZ:





DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

Q Mr. Lyon, the problem you have now with this well is that it's producing as an oil well, right?

A Yes sir.

Q And it's not able to produce its allowable?

A It can produce its allowable, but at the restrictions listed on the allowable by the limited gas-oil ratio, the allowable is insufficient to allow the well to unload the fluids.

Q So in effect, if this is granted, you will be able to produce a gas allowable as well as a considerable amount of liquids?

A I don't believe that is uncommon in that type.

Q On this test, are producing anywhere from 50 to 123 barrels of oil in a 24 hour period?

A Yes.

Q And anywhere from 900 to around 972 MCF with gas?

A Correct.

Q As a gas well, in the Tubb Pool, how much gas will you be allowed to produce?

A As I recall the allowable for the Tubb averages, in the range of 500-600 MCF per day for a 160-acre unit.

Q So that your statement of a moment ago that you believe the oil incidental of this gas will be around 35 barrels?

A Yes sir, you will note that the test on February 10 for the oil produced was a 123 barrels of oil after the well had been shut in for generally two weeks.

Q So the net affect of this request is that you will be



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

able to produce more gas and slightly less oil?

A Then, it is as an oil well.

Q Yes, as an oil well?

A Yes sir, that is right.

MR. UTZ: Any more questions of the witness?

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Lyon, do you think the gravity figure which we use as a definition, the dividing line between oil and gas wells in the Tubb, is too high, generally; in other words, do you think 45 degrees API is too high to use as a dividing line?

A Well, I am not certain in a reservoir of this type; that is, the best way to divide it, the gravities of liquid produced in this Pool vary very widely.

Q Do you consider this to be an associated reservoir?

A Well, to be frank, I am not sure what is going on in this reservoir. It's the most unusual reservoir -- most wells produce liquid, and the ratios vary very widely, and the liquid gravity varies very widely. There have been some wells where it was observed that gas-oil fluctuation on the producing rate of the well, but I don't believe this consistently true.

Q Did I understand you to say that at one time you produced the Tubb through the two and three-eighths inch tubing?

A Yes sir.

Q Did you have this problem of loading up at that time?



A No, I had no difficulty in producing through the two and three-eighths.

Q So that it's probably loading up because you have to produce it through this one-inch tubing?

A That is true.

Q What does the Drinkard make?

A The last test I recall, the Drinkard was making about 17 barrels of oil and 35 barrels of water, but that is not a recent test.

Q So the Drinkard Zone is relatively near depletion, you might say?

A Yes sir, it is.

Q At that time, you could produce the Tubb through the two and three-eighths again?

A That is correct.

Q You had no problem?

A That is right.

Q What's the allowable situation, Mr. Lyon, when you change classifications in the Tubb inasmuch as the change in classification probably won't occur when the well is in balance, at least if it's a gas well?

A I don't believe I understood?

Q Well, the well changes from a gas well, and it wasn't in balance as to gas production, what happens when you change classification?

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A You have to do it in a completely different system.

Q So any overproduction or underproduction is wiped off the books?

A That is correct, I may be in error.

Q It's carried in the books in the event it comes back, back as a gas well, it's charged?

A I believe so; it's a gas well at the time, period.

Q So this has been a gas well?

A That is correct.

Q So, if it's classified again as a gas well, any overproduction that it was classified, the classification on a gas well will be reinstated?

A Well, overproduction, but I don't believe underproduction.

Q I see.

A We have a supplement here; I don't know whether I can read this. This was in September of '59: Net allowable, 431.52, so it was underproduced at that time.

Q As I understand, your application is based on the fact that trying to produce the Tubb through the one-inch tubing is causing the well to load up; consequently, you are not making the amount of gas or liquid that you could make if you were producing through a large tube?

A That is correct.

Q Now, at what point do you ordinarily abandon a Drinkard taking into consideration both oil and water production?



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A Well, we also have some gas production which is produced with the oil. Drinkard wells in the area are generally nearing depletion stage. We are producing a good many Drinkard wells which are producing more than two or three barrels per day.

Q If we reclassify this well as a gas well, the Tubb, would you be willing to have it reclassified back as an oil well at such time as you abandon the Drinkard Zone and use the well through the two and three-eighths inch tubing?

A Yes sir, if the Commission sees fit to do that.

Q That would reduce your problem in the interim period to grant your application here?

A Correct.

Q It would tend to eliminate your problem if at some future date you could produce the Tubb through a two and three-eighths inch tubing?

A Yes.

RE-CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Lyon, your production string is seven inch?

A yes.

Q Can't you run a larger size tubing than the one inch with your two and three-eighths?

A Yes sir, it can be done. It costs a considerable amount of money.

Q So really, your only problem is that you have one inch



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tubing trying to produce your water and low gravity liquids with the gas, and at the rates you have to produce, the tubing isn't quite big enough?

A I am sorry, I lost you.

Q You say, actually, your problem is that you have one inch tubing trying to produce low gravity oil and water at reduced rates, and the cause of your liquid problem is that the tubing isn't big enough to produce at those decreased rates?

A That is true. Of course, when we installed this tubing, we had no idea this would be classified as an oil well.

RE-CROSS EXAMINATION

BY MR. PAYNE:

Q It would have been efficient had it been a regular gas producer. If it wasn't producing all these liquids, one inch would be large enough?

A The difficulty is that the limited gas-oil ratio is set far above the limit on any other gas pool in this area.

Q Well, is that a gas pool?

A Yes, I think it is.

Q You think the gas is more important than the oil in this reservoir?

A Yes, it's the major material present.

Q In terms of volume, or reservoir voidage, or money?

A In --

Q In terms of what, all three?



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A All of them, but I do think that this is not an individual problem. This will be coming up in more wells more frequently.

Q What is that going to do to your offset? Is this going to hurt their rights in any way?

A I don't think so; we will not be producing any more gas than anyone else; we will not be producing any more oil than the oil wells are permitted to produce. I don't see how it would be hurting anybody.

Q You say that to the best of your recollection, there has been an exception of this kind granted to the Humble Well south of your well, here?

A That is my recollection; I recall the application being filed, and I believe I recall seeing the order. I can't give you the Order Number.

MR. PAYNE: All right, sir, thank you.

RE-REDIRECT EXAMINATION

BY MR. UTZ:

Q Mr. Lyon, when you analyze this well from the SUR standpoint of considering the gravity, do you think that a well should be classified as a gas well if the GOR's are in practical range? This itself isn't normally done; normally, GOR's are much higher?

A That is true, but also you are limiting gas-oil ratio which in pools of this type are higher. We could, especially, if the ratio were 8000 to 1 rather than 2000 to 1.



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Q Do you have any idea what your ~~slush~~ <sup>gas-oil</sup> ratio is in this pool?

A If you took ten samples, I expect you would get ten different ~~slush~~ <sup>gas-oil</sup> ratios. If you took several samples in isolated zones well, they'd be different.

Q But your answer is that they'd all be more than 2000 to 1?

A I really couldn't say.

MR. UTZ: Any other questions?

MR. PAYNE: Does Continental have any oil wells in this pool that are not penalized?

MR. LYON: Yes.

MR. PAYNE: So there are some producing with a gas-oil ratio?

MR. LYON: We have one that is pumping.

MR. PAYNE: Thank you.

MR. UTZ: Any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements in this case? The case will be taken under advisement. We will have a ten minute recess.





STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) : ss

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

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 13<sup>th</sup> day of March, 1961.

*La Verne E. James*  
Notary Public - Court Reporter

My commission expires:  
January 6, 1965.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner heard at Santa Fe, N.M. 2188 heard by me on Sept. 23, 1961.  
*Thos. A. [Signature]*, Examiner  
New Mexico Oil Conservation Commission

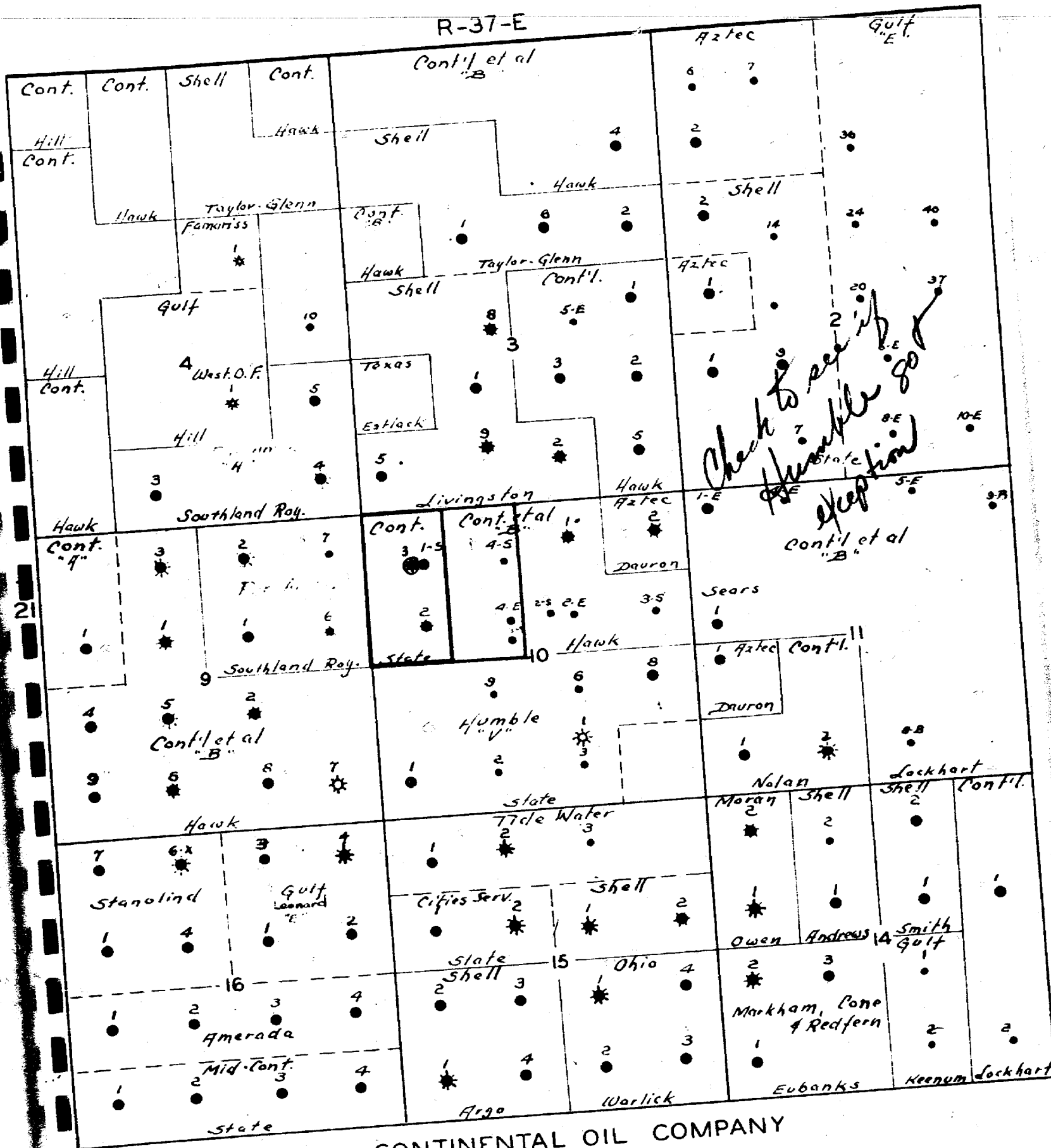
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ALBUQUERQUE, NEW MEXICO



R-37-E



CONTINENTAL OIL COMPANY  
State 10 Area

State 10 Lease —  
Previous Proration Unit —

State 10 No. 3-D 0

Exhibit No. 1  
2188

CONTINENTAL OIL COMPANY  
PRESENT DUAL COMPLETION INSTALLATION  
STATE 10 NO. 3-D

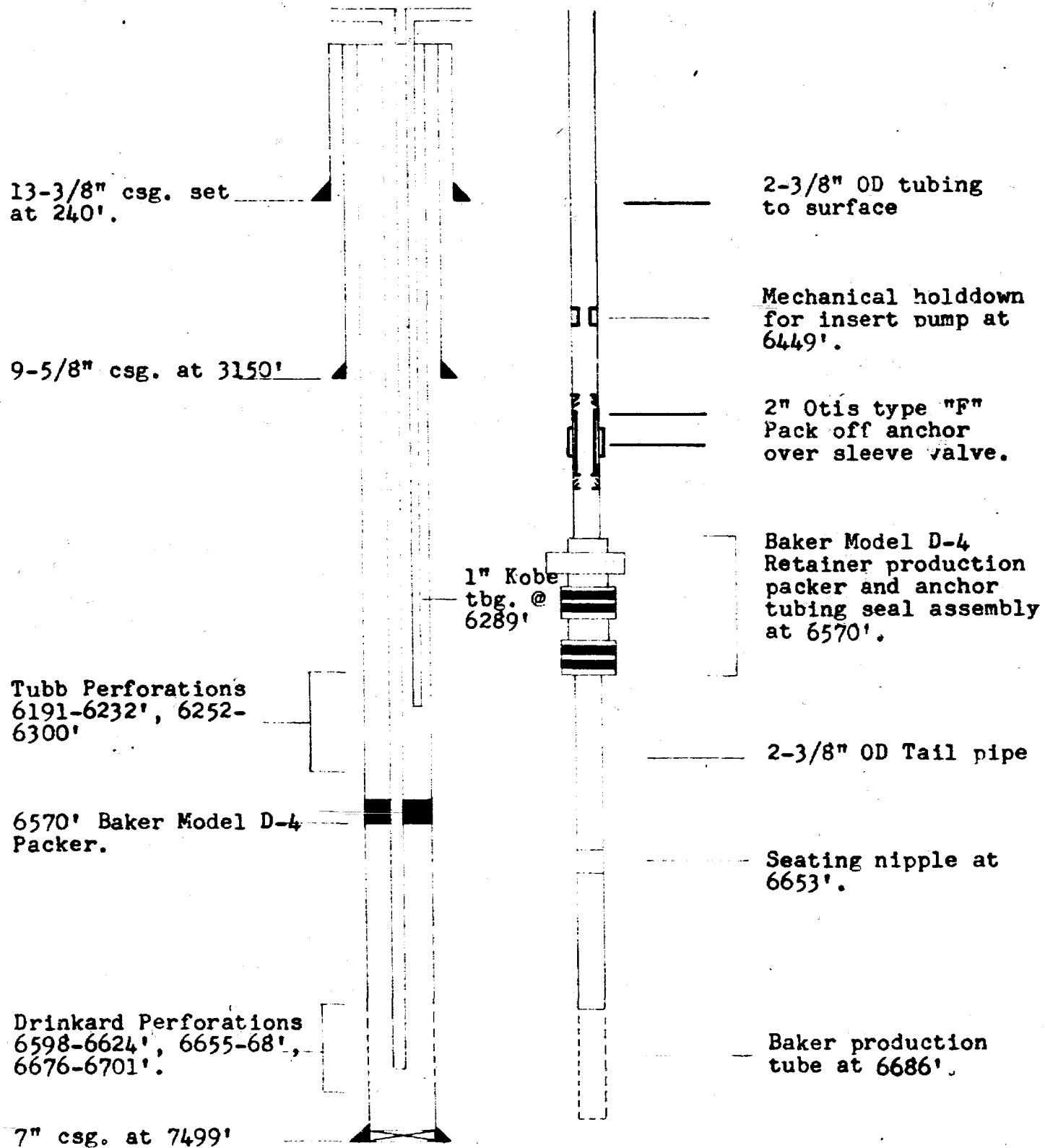


Exhibit No. 2

2188

9-17-61

DATE	HOURS	BARRELS OIL	BARRELS WATER	WATER	GOR	GRAVITY
2-10-61	24	123	7	972	7,902	39.8
2-11-61	24	51	7	960	18,431	41.0
2-12-61	24	64	9	960	15,000	41.4
2-13-61	24	70	7	967	13,528	40.6
2-14-61	24	60	7	969	15,317	40.8
2-15-61	24	50	7	973	16,776	40.6
2-16-61	24	61	7	953	15,623	-
2-17-61	24	58	6	953	16,431	-
2-18-61	24	52	8	967	18,211	42.7
2-19-61	24	53	8	953	17,648	
2-20-61	24	55	8	900	16,364	42.9

Exhibit No. 3

2188

*3/9*  
*3-20-61*  
**DRAFT**

OEP/esr  
March 9, 1961

*HOLD FOR TYPING*  
*rec'd 3/20*  
**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. 2188

Order No. R- 1909

**APPLICATION OF CONTINENTAL OIL  
COMPANY FOR AN EXCEPTION TO  
RULE 26(A) OF ORDER NO. R-1670,  
TUBB GAS POOL, LEA COUNTY,  
NEW MEXICO.**

*asp.*  
**ORDER OF THE COMMISSION**

**BY THE COMMISSION:**

This cause came on for hearing at 9 o'clock a.m. on  
February 23, 1961, at Santa Fe, New Mexico, before Elvis A. Utz  
Examiner duly appointed by the Oil Conservation Commission of New  
Mexico, hereinafter referred to as the "Commission," in accordance  
with Rule 1214 of the Commission Rules and Regulations.

NOW, on this            day of March, 1961, the Commission,  
a quorum being present, having considered the application, the  
evidence adduced, and the recommendations of the Examiner,  
Elvis A. Utz, 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 State 10 Well No. 3-D, located 990 feet  
from the North line and 840 feet from the West line of Section 10,  
Township 21 South, Range 37 East, NMPM, Lea County, New Mexico,  
which well is a dual completion in the Drinkard pool and the  
Tubb Gas Pool produced through 2 3/8-inch and 1-inch tubing  
respectively.

(3) That the applicant seeks the reclassification of said  
State 10 Well No. 3-D from an oil well to a gas well as an excep-  
tion to Rule 26(A) of the rules governing the Tubb Gas Pool as  
set forth in Order No. R-1670.

(4) That said Order No. R-1670 provides that a well in the Tubb Gas Pool which produces hydrocarbons possessing a gravity of 45° API or less shall be classified as an oil well.

(5) That during daily tests taken on the subject well in February, 1961, the highest gravity reflected was 42.9° API and the highest gas-oil ratio was 18,431.

(6) That the characteristics of the subject well as reflected by the daily tests are those generally possessed by an oil well.

(7) That the applicant's problem in attempting to produce the subject well as an oil well is that it loads up with liquids when produced through 1-inch tubing.

(8) That the evidence establishes that no such problem is encountered when Tubb production is through 2 3/8-inch tubing.

(9) That reclassification of the subject well based on present conditions is very likely to impair correlative rights, and, for this reason, the subject application should be denied.

IT IS THEREFORE ORDERED:

That the applicant's request for reclassification of its State 10 Well No. 3-D (990 feet from the North line and 840 feet from the West line of Section 10, Township 21 South, Range 37 East, NMPM, Tubb Gas Pool, Lea County, New Mexico) from an oil well to a gas well as an exception to Rule 26(A) of Order No. R-1670 be and the same is hereby denied.

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