CASE 2468: Application of SHELL for a triple completion of its LIVINGSTON WELL NO. 11.

sheeting, Transcript, mall Exhibits, Etc.

GOVERNOR EDWIN L. MECHEM CHAIRMAN

State of New Mexico Oil Conservation Commission

LAND COMMISSIONER E. S. JOHNNY WALKER MEMBER



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

P. O. BOX 871 SANTA FE

January 17, 1962

•	
Re:	CASE NO. 2468
	ORDER NO. R-2168
Mr. Oliver Seth	
Seth, Montgomery, Federici & Andrews P. O. Box 828	APPLICANT:
Santa Fe, New Mexico	Shell Oil Company
Selice and men selection	
Dear Sir:	
	nies of the above-reference
Enclosed herewith are two co	pies of the above-referenced
Commission order recently entered in	Cile subject canet
Very	truly yours,
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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. 2468 Order No. R-2168

APPLICATION OF SHELL OIL COMPANY FOR A TRIPLE COMPLETION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 4, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, 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 17th day of January, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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, Shell Oil Company, is the owner and operator of the Livingston Well No. 11, located 3300 feet from the South line and 660 feet from the West line of Section 3, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.
- (3) That the applicant seeks permission to complete said Livingston Well No. 11 as a triple completion (tubingless) in such a manner as to permit the production of oil from the Blinebry Oil Pool, the Tubb Gas Pool, and the Drinkard Pool through parallel strings of 2 7/8-inch casing cemented in a common well bore.
- (4) That the mechanics of the proposed triple completion are feasible and in accord with good conservation practices.
- (5) That approval of the subject application will meither cause waste nor impair correlative rights.

-2-CASE No. 2468 Order No. R-2168

IT IS THEREFORE ORDERED:

(1) That the applicant, Shell Oil Company, is hereby authorized to complete its Livingston Well No. 11, located 3300 feet from the South line and 660 feet from the West line of Section 3, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, as a triple completion (tubingless) in such a manner as to permit the production of oil from the Blinebry Oil Pool, the Tubb Gas Pool, and the Drinkard Pool through parallel strings of 2 7/8—inch casing cemented in a common well bore.

PROVIDED HOWEVER, That the applicant shall run a sufficient amount of cement to cement back to approximately 2400 feet.

PROVIDED FURTHER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations.

PROVIDED FURTHER, That the operator shall conduct zone segregation tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Drinkard zone, and at such other times as the Secretary-Director of the Commission may prescribe.

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

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER Member

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

OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

CASE	2468	Hearing Date	9am 1-4-62	
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Date 1-8-62

DOCKET: EXAMINER HEARING - THURSDAY - JANUARY 4, 1962

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, as alternate examiner:

CASE 2448: (Continued)

Application of Pan American Petroleum Corporation for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a pressure maintenance project on its C. J. Holder, State Holder Oil Unit, State "CA", State Oil Unit and Gallegos Canyon Unit Leases, San Juan County, New Mexico, in the Cha Cha-Gallup Oil Pool with water injection initially to be through five wells located in Sections 8 and 16, Township through live wells located in Sections o and 10, lownship 28 North, 28 North, Range 13 West, and Section 23, Township 28 North, Range 12 West, and requests adoption of special rules to govern the operation of said project.

CASE 2449: (Continued)

Application of Pan American Petroleum Corporation for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a pressure maintenance project on its Navajo Tribal "H" and Gallegos Canyon Unit Leases, San Juan County, New Mexico, in the Totah-Gallup Oil Pool with water injection initially to be through five wells located in Section 35, Township 29 North, Range 13 West, Section 12, Township 28
North, Range 13 West, and Sections 13 and 24, Township 29 North, Range 14 West, and requests adoption of special rules to govern the operation of said project.

CASE 2429: (Continued)

Application of Standard Oil Company of Texas for approval of the Jurnegan Point Unit Agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Jurnegan Point Unit Agreement embracing 10,240.84 acres, more or less, of State and fee lands in Township 24 South, Ranges 24 and 25 East, Eddy County, New Mexico.

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Docket No. 1-62

CASE 2452: (Continued)

Application of Southwest Production Company for an order pooling all mineral interests in the Basin-Dakota Gas Pool in the W/2 of Section 7, Township 30 North, Range 11 West, San Juan County, New Mexico. Interested parties include Maleta Y. Brimhall, Phoenix, Arizona, and Barbara Brimhall

Burnham, Aztec, New Mexico.

CASE 2463:

Application of Amerada Petroleum Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its L. M. Lambert Well No. 2, located in Unit G of Section 6, Town-ship 20 South, Range 37 East, Lea County, New Mexico, as a dual completion (conventional) in the Grayburg and McKee zones in the Monument Field, with the production of gas from the Grayburg zone to be through a string of 1 ½-inch tubing and the production of gas from the McKee zone to be through a parallel string of 2 3/8-inch tubing.

CASE 2464:

Application of Amerada Petroleum Corporation for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its State NJ "A" Well No. 1, located in Unit A of Section 2, Township 25 South, Range 37 East, Lea County, New Mexico, as a triple completion (combination) in the McKee, Fusselman and Ellenburger zones in the North Justis Field, with the production of oil from the Fusselman and Ellenburger zones to be through tubing installed within parallel strings of 3 ½-inch casing and the production of oil from the McKee zone to be through a parallel string of 2 7/8-inch casing, all of said casing strings to be cemented in a common well bore.

CASE 2465:

Application of Skelly Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Hobbs "N" Well No. 1, located in Unit D of Section 8, Township 18 South, Range 35 East, Lea County, New Mexico, as a dual completion (conventional) in the Vacuum-Abo Pool and in an undesignated Drinkard pool, with the production of oil from both zones to be through parallel strings of 2 1/16-inch tubing.

CASE 2466:

Application of Shell Oil Company for a 320-acre non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to establish a

--3--Docket No. 1-62

320-acre non-standard gas proration unit in the Eumont Gas Pool, comprising the S/2 of Section 22, Township 21 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the Turner Well No. 7, located at an unorthodox location 1650 feet from the South line and 330 feet from the location 1650 feet from the South line and 330 feet from Lea West line of said Section 22.

CASE 2467:

Application of Shell Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Livingston Well No. 12, located 4620 feet from the South line and 660 feet from the located 4620 feet from the South, Range 37 East, located 4620 feet from the South, Range 37 East, located 4620 feet from the South, Range 37 East, located 4620 feet from the South line and 660 feet from the Lea County, New Mexico, as a dual completion (tubingless) Lea County, New Mexico, as a dual completion the production in the Drinkard and Blinebry Oil Pools, with the production of oil from both zones to be through parallel strings of oil from both zones to be through parallel strings of 27/8-inch casing cemented in a common well bore.

CASE 2468:

Application of Shell Oil Company for a triple completion,
Lea County, New Mexico. Applicant, in the above-styled
Lea County, New Mexico. Applicant, in the above-styled
cause, seeks permission to complete its Livingston Well
cause, seeks permission to complete its Livingston Well
located 3300 feet from the South line and 660 feet
located 3300 feet from the South line and 660 feet
from the West line of Section 3, Township 21 South, Range
from the West line of Section 3, Township 21 South, Range
located County, New Mexico, as a triple completion
from the West line of Section 3, Township 21 South, Range
located County, New Mexico, as a triple completion
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CASE 2469:

Application of El Paso Natural Gas Company for an order establishing special rules and regulations for the Lusk-strawn Pool, Lea County, New Mexico. Applicant, in the Strawn Pool, Lea County, New Mexico. Applicant, in the Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, Lea County, above-styled cause, seeks an order establishing special rules and regulations for the Lusk-Strawn Pool, and a limit special rules and regulations for the Lusk-Strawn Pool, and a limit special rules and regulations for the Lusk-Strawn Pool, and a limit special rules and r

CASE 2470:

Application of J. R. Cone for a 40-acre non-standard gas proration unit and for an exception to Order No. R-1670, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 40-acre non-standard gas proration unit in the Blinebry Gas Pool comprising the NE/4 ration unit in the Blinebry Gas Pool comprising Leat, Lea SE/4 of Section 21, Township 21 South, Range 37 East, Lea

-A-Docket No. 1-62

County, New Mexico, said unit to be dedicated to the Anderson Well No. 2, located 1650 feet from the South line and 330 feet from the East line of said Section 21. Applicant further seeks an exception to Rule 34 (A) of the special rules and regulations for the Blinebry Gas Pool as contained in Order No. R-1670, to permit the gas produced from said Anderson Well No. 2 to be produced into a low-pressure separator only.

CASE 2471:

Application of Leonard Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Federal Ginsberg Well No. 8, located in Unit M of Section 31, Township 25 South, Range 38 East, Lea County, New Mexico, as a dual completion (conventional) in the Langlie-Mattix and Justis-Blinebry Pools, with the production of oil from both zones to be through parallel strings of 2 3/8-inch tubing, separation of the zones to be by a liner re-entry shoe seal assembly.

CASE 2472:

Application of Newmont Oil Company for approval of a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West Loco Hills Grayburg No. 4 Sand Unit Agreement, covering 5320 acres, more or less, in Townships 17 and 18 South, Ranges 29 and 30 East, Eddy County, New Mexico.

CASE 2473:

Application of Newmont Oil Company for expansion of its Loco Hills Waterflood Project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks permission to expand its Loco Hills Waterflood Project to include the proposed West Loco Hills Grayburg No. 4 Sand Unit Area, comprising 5320 acres, more or less, in Townships 17 and 18 South, Ranges 29 and 30 East, Eddy County, New Mexico.

SETH, MONTGOMERY, FEDERICI & ANDREWS

A. K. MONTGOMERY
OLIVER SETH
OLIVER SETH
WM. FEDERICI
FRANK ANDREWS
SANTA FE, NEW MEXICO
FRED C. HANNAHS
GEORGE A. GRAHAM, JR.

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ATTORNEYS AND COUNSELORS AT LAW
J. O. SETH
COUNSEL
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FRANK ANDREWS
SANTA FE, NEW MEXICO
POST OFFICE BOX B2B
TELEPHONE YU 3-7315

New Mexico Oil Conservation Commission P.O. Box 871 Santa Fe, New Mexico

Re: Application for Hearing Livingston #11

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

Gentlemen:

Please consider this letter an application for hearing submitted by Shell Oil Company for a triple completion of applicant Livingston's No. 11 well. This well is located 3300 feet FSL and 660 feet FWL, Section 3, Township 21 South, Range 37 East, Lea County, New Mexico.

The completion proposed is to be a Drinkard Oil, a Tubb Gas and a Blinebry Oil. The Blinebry zone is expected at 5700 feet; the Tubb at 6150 feet, and the Drinkard at 6500 feet. The proposal is to run three 2 7/8 inch O.D. casing strings to 6750 feet, cement these strings in a common 8 3/4 inch well bore, and directionally perforate each string.

It is further proposed to cement fill the annulus to a depth of 4000 feet. Surface casing will be run to 275 feet and cemented to the surface.

It would be appreciated if you would set this matter down for an examiner hearing.

Yours very truly,

OS:fa cc: Shell Oil Company Roswell, New Mexico

BEFORE THE OIL COMSERVATION COMMISSION Santa Fe, New Mexico January 4, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of Shell Oil Company for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its Livingston Well No. 11, located 3300 feet from the South line and 660 feet from the West line of Section 3, Township 21 South, Range 37 East, Lea County, New Mexico, as a triple completion (tubingless) in the Drinkard Oil, Tubb Gas and Blinebry Oil Pools, with the production of oil from the Drinkard and Blinebry zones and the production of gas from the Tubb zone to be through parallel strings of 2 7/8-inch casing cemented in a common well bore.

CASE NO. 2468

BEFORE:

Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: Case 2467.

MR. WHITFIELD: Would the examiner have any objection to hearing 2468 before 67?

MR. NUTTER: No, sir. We will call 2468.

MR. WHITFIELD: Application of Shell Oil Company for a triple completion, Lea County, New Mexico.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M. PHONE 325-1182

COURSOUR, N. M.

MR. SETH: Oliver Seth, Seth and Montgomery, representing the applicant. We have one witness.

(Witness sworn.)

JOSEPH G. YOPE.

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

DIRECT EXAMINATION

BY MR. SETH:

- Would you state your name, please? Q
- A Joseph G. Yope.
- By whom are you employed, Mr. Yope, and in what capacity?
 - I'm a mechanical engineer for Shell Oil Company. A
 - Where are you located? Q
 - In Roswell.
 - Are you familiar with the subject of this hearing?
 - A Yes, sir, I am.
- Would you state to the examiner, please, briefly what is requested by Shell in this hearing?
- Shell is proposing a triple completion utilizing three parallel strings of 2 7/8-inch casing cemented in a common well bore to produce the Drinkard Oil, Blinebry Oil, and the Tubb gas zones through each string individually.
- Do you have a plat showing the location of the well? I have forgotten the qualifications of the witness. You have testified before, have you not, Mr. Yope?



A Yes, I have.

MR. SETH: May he testify?

MR. NUTTER: Yes.

(By Mr. Seth) Do you have an exhibit showing the subject well?

Yes, I have Exhibit No. 1.

(Whereupon, Applicant's Exhibit No. 1 marked for identification.)

- Q I hand you what has been marked Exhibit No. 1, and would you tell the Examiner what this shows, please?
- A Exhibit 1 indicates the Livingston lease outlined in red located in Section 3 and Section 4 of Township 21 South, Range 37 East, and it also denotes Well No. 11 in red which is the proposed triple completion, it shows the offset operators and wells in the surrounding area.
- Is the ownership common throughout these three zones in this well?
 - Yes, it is common ownership for all zones.
 - Q Do you have a diagrammatic sketch of the completion?
 - A Exhibit No. 2.

(Whereupon, Applicant's Exhibit No. 2 marked for identification.)

- State briefly what this shows, please? Q
- Exhibit No. 2 is a diagrammatic sketch of the actual installation in Livingston No. 11.



That is correct. The well is in the process of being A completed at this time.

Tell us a little bit generally about the overall comple-Q tion?

This exhibit shows total depth of the well of 6730 feet, at which point we ran three strings of 2 7/8-inch O.D. casing and cemented them at approximately 6724 feet, plus or minus, these strings were cemented with 325 sacks of Class C cement mixed with 40 per cent Diacel, 4 per cent calcium chloride, and one quarter cubic feet per sack of Strata Crete 6, then followed or tailed in by 310 sacks of Class C cement mixed with four per cent gel, and one-eighth foot of Strata Crete 6 per sack of cement.

Did you mention that the strings were all run to the same depth?

Yes, sir. Looking at each string individually here, A we have the one on the right as our Drinkard string.

- You are referring to Exhibit 2 now? Q
- On Exhibit 2, yes, sir. Α
- Q Okay.

This string consisted of 2 7/8-inch 0.D. 6.5 pound N-80, 8 round EUE tubing or casing as used here, hung at 6725 feet. It was equipped with a Baker solid pump of nose plug on bottom, one shoe joint, then a seating adaptor for a latch down plug, a D and B seating shoe at 6661 feet, a 6 foot sub with radioactive rings located at 6464 and 6470 feet. As this string



FARMINGTON, N. M. PHOVE 325-1162

DEARNLEY-MEIER REPORTING SERVICE, Inc.

was run each joint of casing was pressure tested hydraulically to 8000 PSI above the slips. That was the first string we ran. The second string then was the Tubb which consists of 2 7/8-inch O.D., 6.5 pound J 55, EUE tubing. Again this string was equipped with a Baker solid pump of nose plug on bottom, one shoe joint seating adaptor at 6691 feet for our cementing plug, a D and B seating shoe or seating nipple at 6382 feet, and a 2 foot sub equipped with radioactive rings located at 5103 feet, 6105 feet. In this string each joint was hydraulically pressure tested to 6000 PSI above the slips as it was run into the hole. The third string on Exhibit 2 is the left string or Blinebry, consisted of 2 7/8inch O.D. J 55, 6 1/2 pound 8 round EUE tubing hung at 6724 feet, again it had a solid pump of nose plug seating adaptor at 6691 feet, a D and B seating shoe at 6083 feet and a ten foot sub with radioactive collars at 5637 feet and 5647 feet. This string was also tested to 6000 PSI above the slips at it was run.

- What was done to provide the turbulence on the cementing?
- We equipped each joint of tubing from this hanging point back to approximately 5000 feet with one turbulizer per joint, Baker rubber turbulizers. In the actual final condition these turbulizers ended up approximately 10 feet apart considering all three strings.
 - Did you use a separate cementing truck for each string?
 - To further insure a good cement jcb we had



a cement truck on each string and cemented simultaneously proportional amounts of cement in each string so the cement left the bottom of the strings at approximately the same time and the plugs were all bumped at approximately the same time. We estimated our cement fill to be back to 2200 to 2400 feet which was confirmed by temperature survey to be 2400 feet.

Were some of the zones or all the zones fracted during the process of completion?

Yes, all three zones were fracted. However, I would like to discuss where they were perforated first.

All right.

We perforated the Tubb string first with 12 holes from 6133 feet to 6363 feet and while this zone was perforated 360 pounds surface pressure was held on one string and 800 PSI surface pressure was held on the other string and during the perforating operation no signs of pressure increases were observed or pressure losses were observed in the two strings. We followed the same procedure in perforating the Drinkard zone or the lower zone second. It again was perforated with 12 holes from 6519 feet to 6635 feet. This time we held 500 pounds on one string and 800 FSI on the other string with no observed pressure losses. When the Blinebry zone was perforated we maintained 500 PSI surface pressure on each of the other two strings and perforated with 12 holes selectively from 5719 feet to 5834 Then during completion operations we fracture treated



1.4

1.2

each zone separately, utilizing pressures as high as 9400 PSI on the Drinkard string and in the order of 6400 PSI on the Blinebry and Tubb zones without noticing any pressure increases on the other two strings. From this completion process we are assured that there is no communication between the zones.

Was there treatment of the several zones?

At the present time we are still swabbing the two zones or two of the three zones. The Drinkard is completed and it potentialed a rated potential of 163 barrels per day of 40.2 gravity oil with 2/10ths per cent B, S, and W, through a 12-64 inch choke. We have no test data on the Tubb or Blinebry as yet. We believe that this completion will adequately produce the three zones in the interest of conservation because first the Drinkard zone is primarily a depletion type reservoir with relatively high GOR's through its life.

How about water production in the Drinkard?

We have very little record of water production in this field in our Drinkard wells so we anticipate that the Drinkard zone will flow to near completion at which time if artificial life is required we can produce it with a macaroni string of 1 1/2-inch tubing and either beam units or gas lift equipment.

Do you think that you can lift sufficient volumes to adequately produce the wells, though, in any event?

Yes, sir, we believe we can.



SERVICE.

Q What about the Tubb zone?

A The Tubb zone is an expected gas zone. It may produce as high as 20 barrels per million of condensate, no artificial lift problems of course then would be required here. It would flow to depletion, with the life in the order of 15 years.

Q Is it particularly corrosive?

A No, sir, we have no record of hydrogen sulfide content or carbon dioxide content in our Tubb gas wells so we do not anticipate any corrosive action from this zone.

Q What about the Blinebry?

A The Blinebry zone is also a depletion type oil reservoir with an expected life of six to eight years and in reality we expect this zone to flow to depletion and actually go to gas. It has a secondary gas cap drive and if artifical lift is required, either beam pumping or gas lift should be adequate to handle it. The hydrosulfide and carbon dioxide content measured in the Blinebry gas are zero. We have no anticipated corrosion problems from that zone either, although we have no measured corrosion rates or anything on the Drinkard. We have many Drinkard wells in the area which have not created any corrosion problems to our knowledge so in reality all three zones we consider corrosion free.

Q Do you believe that the approval of the application would be in the interest of conservation and the prevention of waste?



HODEROVE, N. M.

Yes, I do. Α

Do you have anything further about production from the zones or testing or anything like that that you would like to mention?

Yes, sir, the production from each zone will be handled in a central tank battery and the Blinebry and Drinkard will be commingled in the central battery which is adequate facilities for testing the GOR and fluid content of the zones. Diagram of this battery if necessary is available from our application for administrative approval for that commingled battery. The order authorizing it was administrative order PC 47. We also have here a log, gamma ray neutron log. I only have one copy which I would like to enter as Exhibit 3.

> (Whereupon, Applicant's Exhibit No. 3 marked for identification.)

- What does this log show generally?
- The log denotes the tops and bottoms of the three horizons concerned in this well and it also shows by arrow points the actual position of the perforated intervals or the perforated shots.
 - Is there anything further?
- If the Commission desires, we have a copy here of the temperature survey on the cement top.

MR. NUTTER: That won't be necessary. You did determine that the top of the cement was 2400 feet, didn't you?

Yes, sir



ALBUQUERQUE, N. M. PHONE 243.6691

Are there any further comments you want to make about the application?

No, sir.

MR. SETH: We would like to offer our three exhibits.

MR. NUTTER: Shell's Exhibits 1 through 3 will be admitted in evidence.

> (Whereupon, Applicant's Exhibits 1 through 3 admitted in evidence.)

MR. SETH: That's all the testimony.

MR. NUTTER: Does anyone have any questions of the

witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q Have you received approval for a non-standard unit for the Tubb gas?

No, sir, we haven't. An application will be forthcoming for a non-standard gas unit there on successful completion of the Tubb zone.

Is there and Tubb Oil well on this lease?

No, sir.

Q Is there any Blinebry gas well anywhere on this lease?

A No, sir, they have all been converted to oil wells.

So you'll have the 40 acres on which the well is located dedicated to the Blinebry oil completion?

Yes.



- And some acreage dedicated to the Tubb when you receive approval for that unit?
- Yes, it will probably be Lots 13 and 14 in Section 3, and 9 and 16 in Section 4 for another standard gas unit.
- Now, I missed your potential on the Drinkard, how many barrels was that per day?
 - We rated it at 163 barrels of oil per day. A
 - What was the GOR on that?
 - 1894.
- And no completion data on the Blinebry or Tubb either one as yet?
 - No, sir.

MR. NUTTER: Any further questions of Mr. Yope? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Seth?

No. we have nothing further. MR. SETH:

MR. NUTTER: Does anyone have anything they wish to offer in Case 2468? We will take the case under advisement.



STATE OF NEW MEXICO COUNTY OF BERNALILLO)

I, ADA DEARNLEY, 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 4th day of January, 1962.

JRT REPORTER-NOTARY PUBLIC

My commission expires: June 19, 1963

> I do hereby certify that the foregoing is a complete and and the proceedings les of Gase No. New Rexico Gil Conservation Commission





