

Case No.

375

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Application, Transcript,  
Small Exhibits, Etc.

CASE 375: Tide Water application for gas -  
oil dual completion of its D. L. Coleman #3  
NE NE 17-21S-36E, Lea County

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE  
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
TIDE WATER ASSOCIATED OIL COMPANY  
FOR AN ORDER GRANTING PERMISSION TO  
DUALY COMPLETE O. L. COLEMAN NO. 3  
WELL, EUNICE POOL, NE/4 NE/4  
SECTION 17, TOWNSHIP 21 SOUTH,  
RANGE 36 EAST, N.M.P.M., LEA COUNTY,  
NEW MEXICO,

OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO

MAY 2 - 1952

COMES NOW, Tide Water Associated Oil Company, a Delaware Corporation, operating in New Mexico from a field office in Hobbs, New Mexico, and respectfully represents to the Oil Conservation Commission of the State of New Mexico that on October 7, 1934, it completed O. L. Coleman No. 3 well located in the center of NE/4 NE/4 Section 17, Township 21 South, Range 36 East, N.M.P.M., Lea County, New Mexico, that said well is presently producing from the Grayburg-San Andres formation from open hole interval 3789 feet to total depth 3925 feet; and that the well is equipped with 7" casing set at 3789 feet and cemented with 310 sacks of cement; that an intermediate string of 9-5/8" casing was set and cemented at 2860 feet.

Applicant further represents that a high pressure gas zone exists in the Yates-Seven Rivers formation, present and producing in the open hole interval 2995-3480 feet in Skelly Oil Company's State "B" No. 7, an offset well located in SW/4 NW/4 Section 15, Township 21 South, Range 36 East, and from Bradenhead completions in Skelly Oil Company's State "B" No. 4 and Atlantic Refining Company's Coleman No. 1.

Applicant further represents that it is practical and economically feasible to dually complete their O. L. Coleman No. 3 to produce oil from the Grayburg-San Andres formation through the tubing and gas from the Yates-Seven Rivers gas zone through the tubing-casing annulus with proper packer and wellhead connections, and in such manner that there will be no commingling of fluids between the two reservoirs.

WHEREFORE, Applicant respectfully requests that this matter be set down for hearing on due notice, and that at such hearing it be authorized to dually complete said well in accordance with the foregoing petition and the rules and regulations of the Commission.

Attached hereto is a plat showing the location of the well proposed for dual completion and surrounding wells and leaseholds.

DONE at Houston, Texas, on this the 29th day of April, 1952.

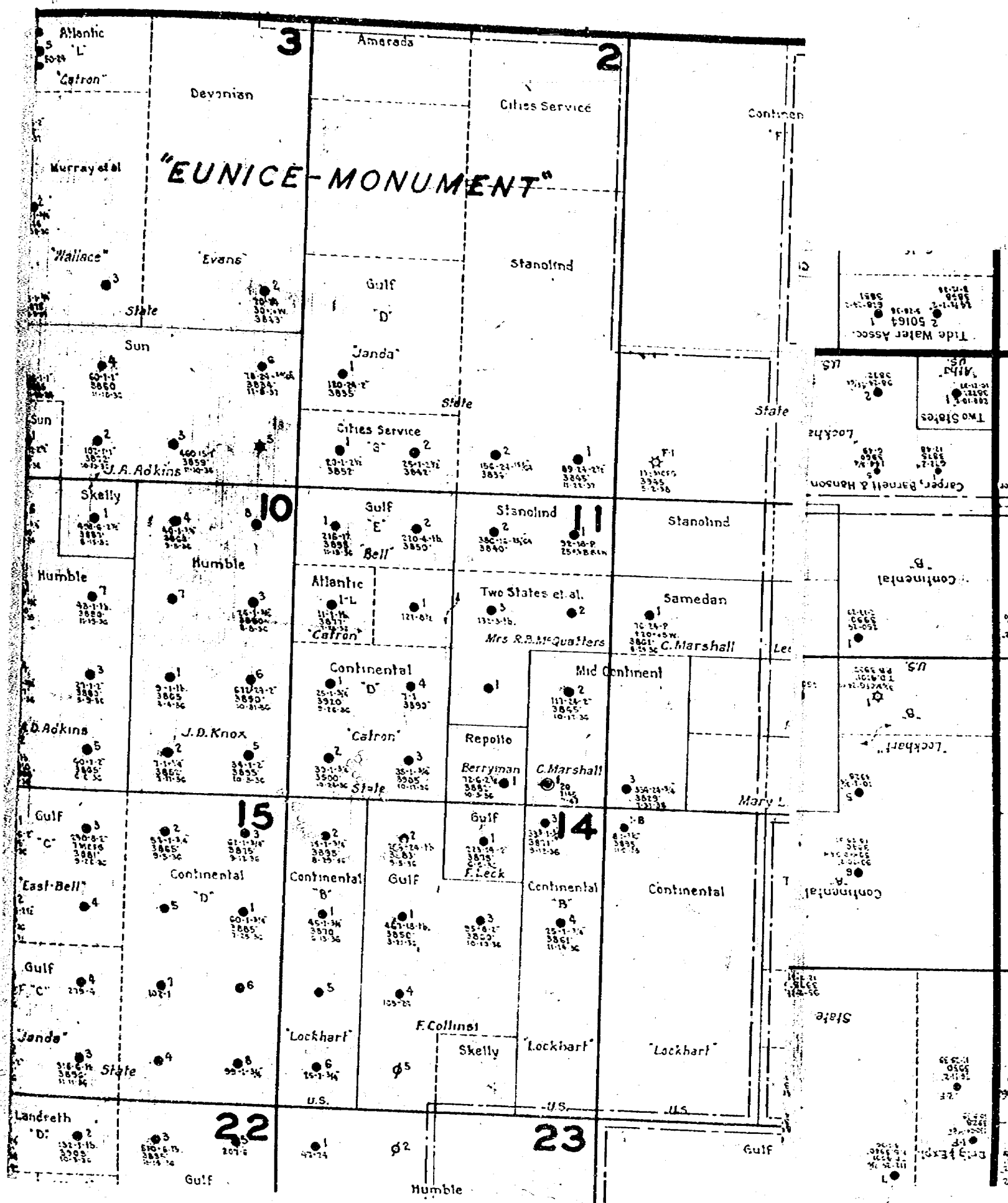
Respectfully submitted,

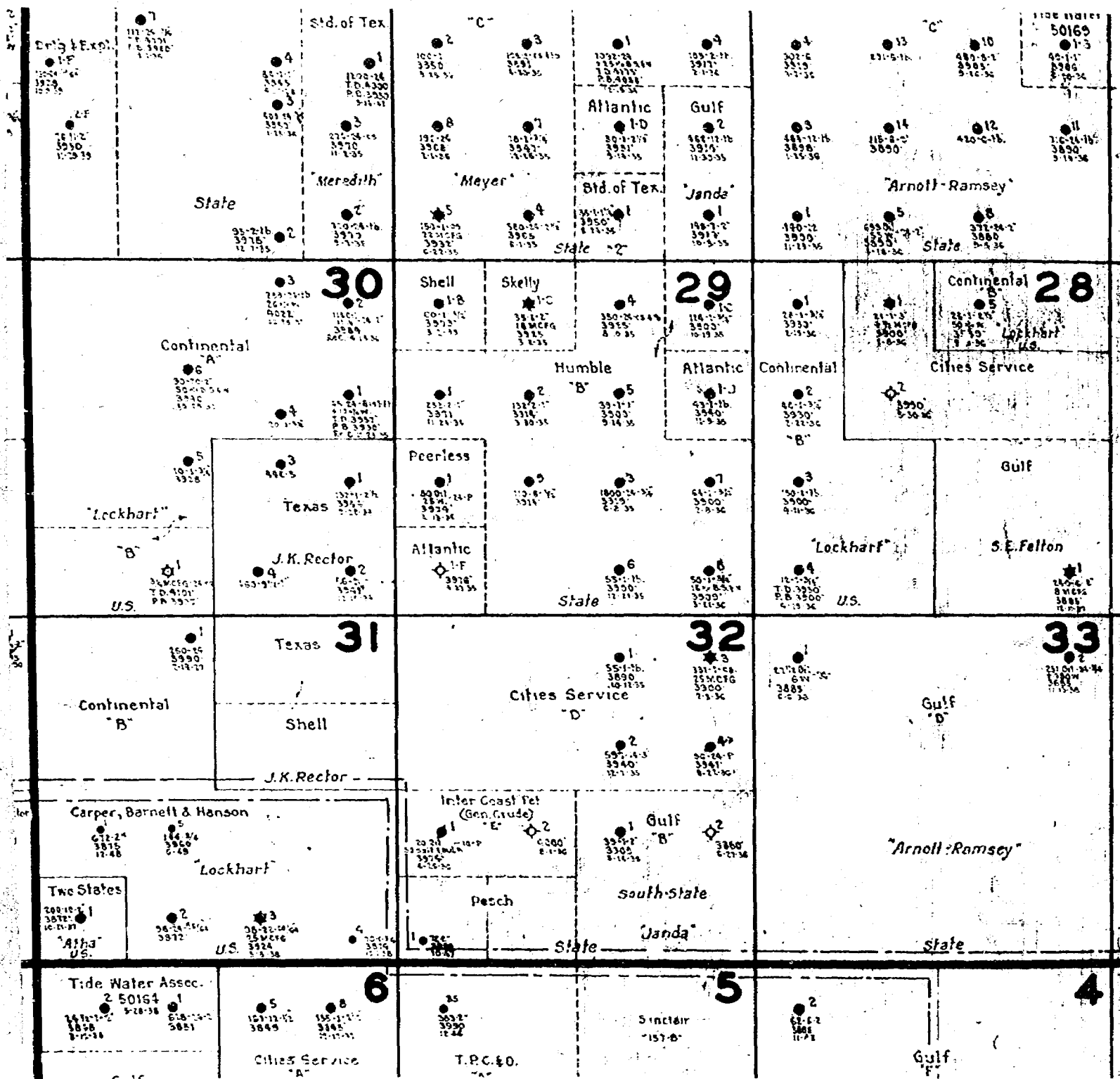
TIDE WATER ASSOCIATED OIL COMPANY

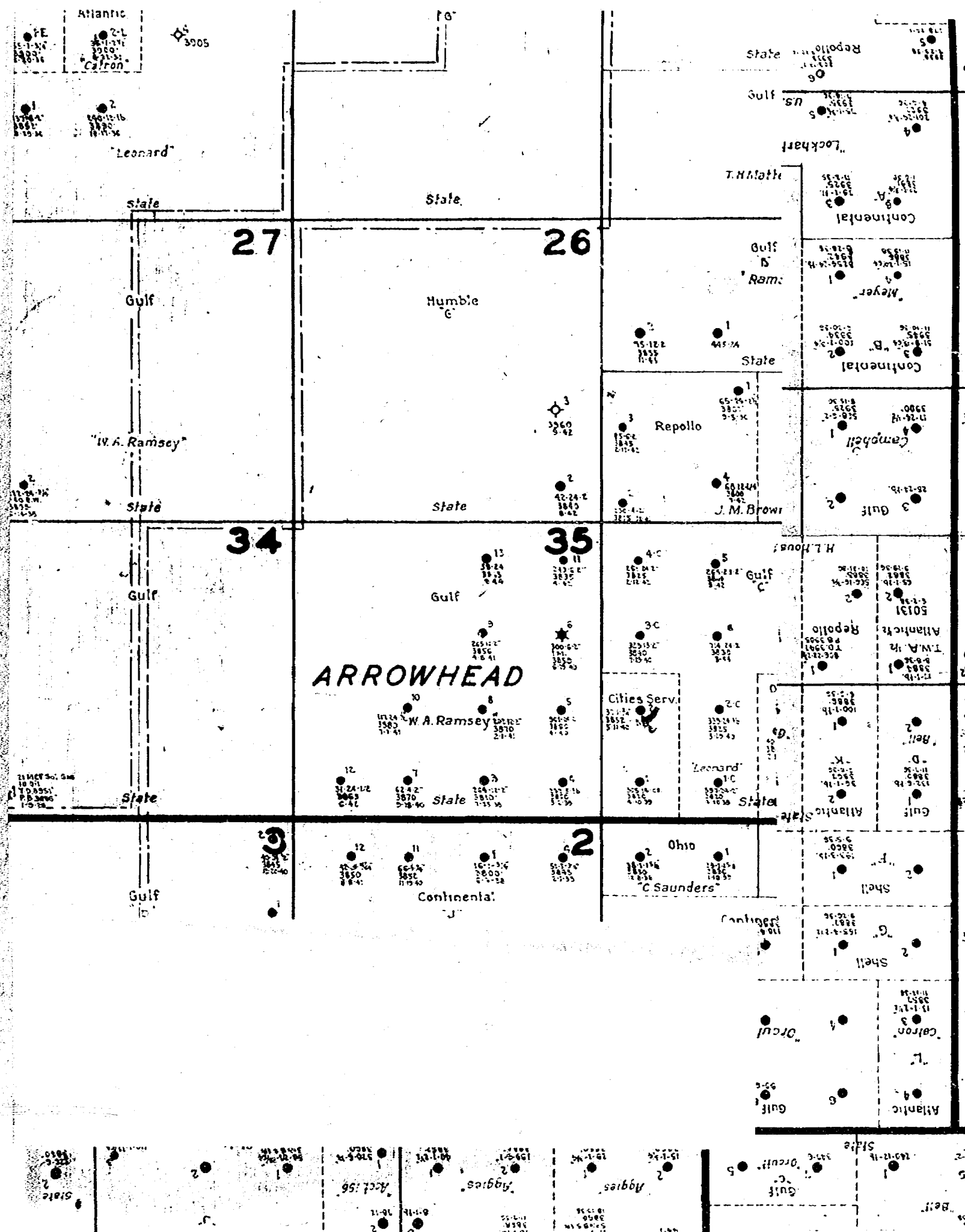
By

J. B. Holloway









TITLE NO.

WELL NO.

DESCRIPTION

LOCATION

RIG COMMENCED

RIG CONTRACTOR

DRILLING COMMENCED

DRILLING CONTRACTOR

## WELL RECORD

O. L. Coleman

ELEV. 3607'

AUTH. NO. T-1988

FARM OR LEASE

SEC. 17

TWP. 21S

RNG. 36E

COUNTY

Lea County, New Mexico

COMPLETED

COMPLETED

Oct 7, 1934

Aug 29, 1934

Q. H. Vaughn Drilling Co., Dallas, Tex

PRICE PER FOOT, \$

## CASING AND TUBING RECORD

SIZE	PUT IN WELL		PULLED OUT		MAKE OF CASING	TUBING USED			PACKERS
	FEET	IN.	FEET	IN.		SIZE	FEET	IN.	
12 1/2" 50#	43'		None		LW Steel				TP Csg Shoe
9-5/8" 36#	2860'		None		Seam. Steel				Halliburton Float Shoe
7" 24#	3804'		None		Seam. Steel				do do
Tubing:									
2" Up. 4.7#	3935'	10"			Reading WI (6' of bottom joint perforated & bottom bull nosed)				

SAND	TOP	BOTTOM	THICKNESS	INITIAL TORPEDO		
				QUARTS	DATE OF SHOT	TORPEDO COMPANY
Gray Sandy Lime	3835	3845				
Gray Lime	3875	3905				
Gray Lime	3915	3925				
TOTAL DEPTH 3925'				Did not shoot or Acid Treat.		

RECORD OF SAND AND OIL SHOWINGS 3795 - 3800' Sandy Lime - Light oil show.

3835 - 3845' Gray Sandy Lime - Light oil show.

3875 - 3905' Gray lime - Good show oil.

3915 - 3925' Gray lime - Good show oil.

PRODUCTION FIRST 24 HOURS-NATURAL 936 bbls AFTER SHOT GRAVITY 33.5

DETAIL OF SHOT None

COMMENCED PRODUCING

10/9/34

SUBSEQUENT HISTORY

1st 24 hrs natural flowed 936 bbls - 99% oil, 1% emulsion (Drilling fluid)  
Manometer gas test 852,480 cu ft.No<sup>w</sup> producing thru surface choke on tubing at prorated allowance.

12 1/2" Csg cemented to top w/ 40 sax. Set @ 61'.

9-5/8" Casing cemented by Halliburton 2-Stage job, 175 sax Incon cement below, 325 Sax Incon above. Set @ 2860'.

7" OD Casing cemented by Halliburton @ 3789' w/ 310 sax.

# FORMATION RECORD

0	to	61'	Caliche
61		150	do
150		250	Quick Sand - Water
250		500	Red Bed
500		700	Red Bed & Sand
700		710	Red Gumbo
710		750	Sticky Shale
750		800	Shale & Shells
800		890	Red Bed
890		905	Water sand
905		940	Sandy shale
940		1075	do & Lime Shells
1075		1175	Sand & Lime
1175		1234	Red Bed & Anhy. Shells
1234		1298	Anhydrite
1298		1348	Lime & Anhy.
1348		1376	Anhydrite
1376		1388	Anhydrite & Shale
1388		1400	Salt & Lime Shells
1400		1430	Salt
1430		1450	Broken lime
1450		1500	Anhydrite & salt
1500		1660	Salt
1660		2185	Salt & Lime shells
2185		2245	Salt & Anhy.
2245		2545	Salt & Lime
2545		2575	Anhydrite
2575		2675	Salt & Lime Shells
2675		2720	Salt
2720		2735	Broken Lime & Anhy.
2735		2784	Gray lime
2784		2795	Anhydrite
2795		2869	Lime & Anhy.
2869		2911	Lime
2911		2954	Lime & Anhy.
2954		3030	Lime
3030		3042	Anhydrite
3042		3052	Lime
3052		3076	Lime - Gas
3076		3124	Lime
3124		3139	Sandy lime
3139		3105	Lime
3105		3225	Lime - Gas
3225		3380	Lime
3380		3404	Lime - Gas
3404		3445	Lime
3445		3463	Lime - Gas
3463		3578	Lime
3578		3593	Lime - Gas
3593		3702	Lime
3702		3727	Lime - Gas
3727		3795	Lime
3795		3800	Sandy lime - Light oil show
3800		3817	Sandy lime
3817		3835	Gray sandy lime
3835		3845	Gray sandy lime - Oil show
3845		3875	Gray lime
3875		3905	Gray lime - Good oil show
3905		3915	Hard Gray lime
3915		3925	Gray lime - Good oil show
3925		4000	Gravelly sand.



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. 375  
ORDER No. R-173

THE APPLICATION OF TIDE WATER ASSOCIATED  
OIL COMPANY FOR AN ORDER GRANTING  
PERMISSION TO DUALY COMPLETE AND  
PRODUCE ITS O. L. COLEMAN, NO. 3  
WELL IN THE EUNICE POOL, LOCATED  
IN THE NE/4 NE/4 SECTION 17, TOWN-  
SHIP 21 SOUTH, RANGE 36 EAST, NMPM, LEA  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m. on June 19, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission."

NOW, on this 16 day of July, 1952, the Commission, a quorum being present, having considered the records and the testimony adduced, and being fully advised in the premises,

FINDS:

(1) That due notice having been given as required by law, the Commission has jurisdiction of the case and the persons and subject matter thereof.

(2) That applicant's O. L. Coleman, No. 3 well, NE NE 17-21S-36E NMPM, was completed in October, 1934 as an oil well producing from the Grayburg-San Andres formation in the open hole interval 3789-5925, having drilled through the Yates-Seven Rivers Gas zone, (3052-3727).

(3) That although recent experiments tend to show that mechanical packers and other devices are ordinarily available for successful dual/multiple completions of oil - gas wells, the Commission is unconvinced of the soundness, as a waste-prevention practice, of such dual/multiple completions as a general practice in New Mexico without specific controls over each such project.

IT IS THEREFORE ORDERED:

That the applicant herein, Tide Water Associated Oil Company, be, and it hereby is authorized to dually complete and produce its O. L. Coleman No. 3 Well, NE NE Section 17, Township 21 South, Range 36 East, NMPM, in the Eunice Pool, Lea County, New Mexico, in such a manner that gas from the Yates-Seven Rivers formation may be produced through the annular space between the casing and the tubing, and oil from the Grayburg-San Andres formation through the tubing by proper perforations and installation of a proper packer or packers;

PROVIDED, HOWEVER, That subject well shall be completed, and thereafter produced, in such a manner that there will be no commingling within the well bore, either within or outside the casing of gas, oil and gas, or oil produced from either or both of the separate strata, and,

PROVIDED FURTHER, That said subject well for dual completion and production shall be equipped in such a way that reservoir pressures may be determined separately for each of the two specified strata, and further, be equipped with all necessary connections required to permit recording meters to be installed and used, at any time, as may be required by the Commission or its representatives, in order that natural gas, oil, or oil and gas from each separate stratum may be accurately measured and the gas-oil ratio thereof determined, and,

PROVIDED FURTHER, That the operator applicant shall make any and all tests, including segregation tests, but not excluding other tests and/or determinations at any convenient time and in such manner as deemed necessary by the Commission; the original and all subsequent tests shall be witnessed by representatives of the Commission and by representatives of offset operators, if any there be, at their election, and the results of each test properly attested to by the applicant herein and all witnesses, and shall be filed with the Commission within ten (10) days after the completion of such test, and,

PROVIDED FURTHER, That upon the actual dual completion of such subject well, applicant shall submit to the Commission a diagrammatic sketch of the mechanical installation which was actually used to complete and produce the seal between the strata, and a special report of production, gas/oil ratio and reservoir pressure determination of each producing zone or stratum immediately following completion.


IT IS FURTHER ORDERED, That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of applicant to comply with any requirement of this order after proper notice and hearing, the Commission may terminate the authority hereby granted and require applicant or its successors and assigns to limit its activities to regular single-zone production in the interests of conservation.

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

STATE OF NEW MEXICO OIL  
CONSERVATION COMMISSION

Edwin L. Mechem, Chairman

  
Guy Shepard, Member

  
R. R. Spurrier, Secretary

S E A L

**OIL CONSERVATION COMMISSION**

P. O. BOX 871

**SANTA FE, NEW MEXICO**

July 24, 1952

C

O

Mr. J. B. Holloway  
Tide Water Associated Oil Company  
Houston, Texas

P

RE: Order No. R-173 in Case 375

Dear Mr. Holloway:

Y

We are transmitting officially signed and sealed order  
in the captioned case, granting approval for your dual completion of  
O. L. Coleman No. 3, Eunice pool, Lea County, New Mexico.

Very truly yours,

W

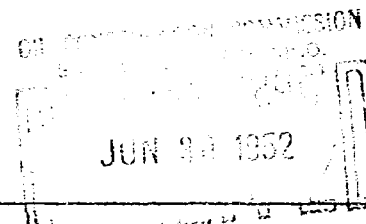
Secretary and Director

BEFORE THE  
OIL CONSERVATION COMMISSION  
STATE OF NEW MEXICO

TRANSCRIPT OF PROCEEDINGS

CASE NO. 375

June 19, 1952



E. E. GREESON  
ADA DEARNLEY  
COURT REPORTERS  
BOX 1302  
PHONES 5-9422 AND 5-9546  
ALBUQUERQUE, NEW MEXICO

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

JUNE 19, 1952

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In the Matter of:

Tide Water's application for permission  
to dually complete its O. L. Coleman No.  
3 well (oil-gas), Eunice Pool, NE NE 17-  
21S-36E, Lea County, New Mexico.

Case No. 375.

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MR. SPURRIER: The meeting will come to order again.  
The next case on the Docket is Case 375.

(Notice of Publication read by Mr. White.)

MR. HOLLOWAY: I am J. B. Holloway, employed by  
Tide Water Associated Oil Company and have charge of the pro-  
rations department. The application that we filed for dual  
completion of our O. L. Coleman No. 3 well very well covers  
the subject. However, I might add to that.

Tide Water Associated Oil Company completed its O. L.  
Coleman well No. 3, located in the center of the NE/4 NE/4  
Section 17, Township 21-S, Range 36-E, Eunice Field, Lea County,  
on October 7, 1934. The well originally and is presently  
producing oil from the Grayburg-San Andres formation from

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COURT REPORTERS  
ROOM 12, CROMWELL BLDG.  
PHONES 7-9845 AND 5-9846  
ALBUQUERQUE, NEW MEXICO

open hole interval 3789 feet, the bottom of 7" casing, to 3925 feet, the total depth of the well. An intermediate string of 9-5/8" casing was set and cemented at 2860 feet. In drilling Coleman No. 3, gas zones were logged at several intervals commencing at 3052 feet through 3727 feet. The 7" producing string was cemented with 310 sacks of cement which theoretically should have circulated to within 1600 feet of the surface and which precludes any possibility of now making a bradenhead completion for the purpose of producing gas from the upper zones for lease use or for sale unless another string of casing is run inside the 7". Bradenhead completions are quite common in this area where a more moderate amount of cement is used in setting the producing string and such completions are possible.

It is our opinion that it is practical and economically feasible to dually complete the well in such manner that the Grayburg-San Andres formation would continue to be produced through the tubing and the gas zones, which are identified in this area as the Yates-Seven Rivers formation, would be produced through the annulus between the tubing and casing with no communication between the two producing formations.

If granted permission to dually complete the well, before

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PHONES 7-9645 AND 5-9546  
ALBUQUERQUE, NEW MEXICO

doing so we propose to test the 7" casing with 1500 pounds pressure by running a retrievable cement retainer equipped with a perforation above and bull plug below to a depth below 3000 feet and test casing above that depth. A radioactivity log would then be run through the gas section to provide correlation with the successful Skelly gas well completion in its State "B" well No. 7, located approximately 1900 feet southeast of our well. According to our information, Skelly's No. 7 well is producing from the Yates-Seven Rivers formation from open hole interval 2995-3480 feet. The 7" casing would then be perforated opposite the most permeable zones. The well would be completed by setting a Baker Model "D" retainer production packer set at 3750 feet in the 7" and the tubing run through the packer for production of the lower zone, or Grayburg-San Andres formation.

We further propose that prior to the time the well is dually completed, we shall furnish the Commission, for its approval, an electrical log showing the location and extent of each separate stratum yielding production above the casing shoe and the vertical footage location of the proposed perforations; and further upon the actual dual completion of the well, we shall submit to the Commission a diagrammatic sketch

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PHONES 7-9645 AND 5-9546  
ALBUQUERQUE, NEW MEXICO

of the mechanical installation which was used to complete and produce the seal between the producing formations, together with a special report of production, gas-oil ratio and reservoir pressure determination of each producing zone immediately following completion, and to comply with any further order of the Commission which to the Commission seems necessary for the prevention of waste or protection of correlative rights.

The well was drilled so long ago that I was unable to find in my file any report made to the Commission covering the completion of this well so I have had a photostat made of our own well record which shows these gas shows by the driller's log. I would like to file one of these as an Exhibit.

I have also had prepared a diagrammatic sketch showing our Coleman No. 3 well, upon which has been superimposed a copy of the electric log of Skelly's gas well which is based upon the assumption that we will find these formations more or less as depicted here (indicating.) Of course, upon the approval of the Commission and final dual completion of the well we shall file a simple diagram which is actually for the well itself. But for anyone that would like to examine it would show the packer setting and how we propose to eventually complete the well. I have also had a field check made, showing

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the wells in the area that are producing gas from the Yates and Seven Rivers Sand, one of which is a dual well. Some are bradenhead completions and Skelly 7 is an individually completed well. I have indicated those with red stars. For the convenience of the Commission I file that with the Commission.

In my statement that we would obtain the approval of the Commission for the dual completion of this well by submission of electric log showing where we proposed to perforate. I would like to ask that the Commission if it does grant this application, that we be permitted to obtain such approval from its' office at Hobbs. We ask that for the reason that when we have finished working on the well our expenses will be some six or seven hundred dollars a day and just for economical reasons why it would be most convenient to obtain the approval of the Commission's office there. That is all.

MR. SPURRIER: Does anyone have a question of this witness?

Q (By MR. MACY) Are you gas lifting the well now?

A No, sir, it is pumping. We have to change the installation.

Q You propose, after completion, you propose to gas lift?

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ALBUQUERQUE, NEW MEXICO

A That is correct. We don't have too much confidence in the efficacy of the permanent pack. There would be too much vibration. We will take out the pumping equipment and put in flow test and the gas casing head gas for the Phillip Petroleum Company.

MR. SPURRIER: Anyone else? Mr. Holloway, do you swear to all this testimony you have given?

A Yes, I sure do.

MR. SPURRIER: Very well. No further questions the witness will be excused.

(Witness excused.)

STATE OF NEW MEXICO )  
:  
COUNTY OF BERNALILLO )

I HEREBY CERTIFY that the foregoing and attached transcript of hearing in Case No. 375 before the Oil Conservation Commission, State of New Mexico, at Santa Fe, on June 19, 1952, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 26<sup>th</sup> day of June, 1952.

  
REPORTER

ADA DEARNLEY & ASSOCIATES  
COURT REPORTERS  
ROOM 17, CROMWELL BLDG.  
PHONES 7-9648 AND 5-9548  
ALBUQUERQUE, NEW MEXICO

