CASE 3682: Application of GULF OIL CORPORATION FOR A DUAL COMPLETION, LEA COUNTY, N. MEX.

Case Ma

Replication, Transcript,

Small Exhibits, Etc.

NEW MENICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

PACKER-SETTING APPIDAVIT (Dual Completions) STATE OF New Mexico County of Lea ___, being first duly sworn according to law, upon his Leland Leonard oath deposes and says: That he is of lawful age and has full knowledge of the facts herein below set out. That he is employed by Gulf Oil Corporation __in the capacity of Maintenance Foreman and as such is its authorized agent. That on 1-17, 19 68, he personally supervised the setting of a 7" Baker Model "FA" Gulf Oil Corporation (Make and Type of Packer) Well No. 7 , located in Unit Garson (NCT-A) (lease) , Section 33 , Township 21-S , Range 37-E , NMPM, Letter B ____County, New Mexico. That said packer was set at a subsurface depth of 6800' _feet. said depth measurement having been furnished by Lane Wells That the purpose of setting this packer was to effect a seal in the annular space between the two strings of pipe where the packer was set so as to prevent the commingling, within the well-bore, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer. That this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer. Corporation

(Company)

(Company)

(Its Agent)

25th day of January AD

Subscribed and sworn to before me this the 25th day of January, AD,

Notary Public in and for the County of Lea

My Commission Expires 8-21-69

GOVERNOR DAVID F. CARGO CHAIRMAN

State of New Mexico Gil Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER



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

P. O. BOX 2088 SANTA FE

November 15, 1967

	Re:	Case No.	31
Mr. Bill Kastler	7.01		_
Gulf Oil Corporation		Order No. R3.	
Post Office Box 1938		Applicant:	
Roswell, New Mexico 88210			

3682)
Re: Case No. 3683
Order No. R-3343 & R-3344
Applicant:

GULF OIL CORPORATION

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. Secretary-Director

ALP/ir		•		•	*		
Carbon copy	of drde	r also	sent to	:			
Hobbs OCCArtesia OCC				•			
Aztec OCC	R-3344	to Uni	t Divisio	on - Sta	te Land	Office	

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. 3682 Order No. R-3343

APPLICATION OF GULF OIL CORPORATION FOR A DUAL COMPLETION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 8, 1967, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of November, 1967, 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, Gulf Oil Corporation, seeks authority to complete its J. N. Carson (NCT-A) Well No. 7, located in Unit B of Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce oil from the Drinkard and Brunson-Ellenburger Pools through parallel strings of 2 3/8-inch tubing, with separation of zones by a packer set at approximately 6630 feet.
- (3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.
- (4) That approval of the subject application will prevent waste and protect correlative rights.

-2-CASE No. 3682 Order No. R-3343

IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to complete its J. N. Carson (NCT-A) Well No. 7, located in Unit B of Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, as a dual completion (conventional) to produce oil from the Drinkard and Brunson-Ellenburger Pools through parallel strings of 2 3/8-inch tubing, with separation of zones by a packer set at approximately 6630 feet;

<u>PROVIDED HOWEVER</u>, 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 insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packerleakage tests upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Brunson-Ellenburger Pool.

(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 hersinabove designated.

STATE OF NEW MEXICO
OIL COMBERVACION COMMISSION

DAVID F. CARGO, Chairman

Senter BHa

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

esr/

Docket No. 34-67

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 8, 1967

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, Alternate Examiner:

CASE 3681: Application of Burwinkle and Scanlon for a waterflood project, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Mesaverde formation through one well located 330 feet from the North and East lines of Unit C of Section 28, Township 20 North, Range 9 West, McKinley County,

New Mexico. Applicant further seeks an administrative procedure

for future expansion of said project.

accordance with the above provisions.

CASE 3674: Application of Robert N. Enfield for an interpretation of or the amendment of Order No. R-3189, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the interpretation of Order No. R-3189 which pooled all mineral interests in the Chaveroo-San Andres Pool underlying the NW/4 NW/4 of Section 11, Township 8 South, Range 33 East, Chaves County, New Mexico, that paragraph (9) of said order, in fixing \$125.00 per month as the reasonable cost of operating the well to be drilled on the acreage being pooled, should be construed to provide said \$125.00 per month as a reasonable charge for supervision and operational overhead; that applicant should be permitted to withhold from production the proportionate share of said \$125.00 attributable to each non-consenting working interest, and that in addition thereto, applicant should be permitted to withhold from production the proportionate share of actual operating costs of said well attributable to each non-consenting working interest. In the alternative to the aforesaid interpretation of Order No. R-3189, applicant seeks the amendment of paragraph (9) of said order in

CASE 3682:

Application of Gulf Oil Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its J. N. Carson (NCT-A) Well No. 7 located in Unit B of Section 33, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from the Drinkard and Brunson-Ellenburger Pools through parallel strings of tubing.

CASE 3683:

Application of Gulf Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of the Stuart Langlie Mattix Unit Area comprising 1,120 acres, more or less, of Federal, State and Fee lands in Sections 2,3, 10, and 11, Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 3684:

Application of Gulf Oil Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Stuart Langlie Mattix Unit by the injection of water in the Langlie Mattix Pool through 12 wells located in Sections 2, 3, 10, and 11, Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 3685:

Application of Gulf Oil Corporation for an amendment of Order No. R-3290, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3290, which order authorized an unorthodox oil well location 1075 feet from the South line and 2395 feet from the West line of Section 16, Township 22 South, Range 37 East, Lea County, New Mexico, for its R. E. Cole (NCT-A) Well No. 9, said well being projected to undesignated Silurian and Montoya oil pools. Applicant now seeks the substitution of the Drinkard Pool for the previously authorized pools.

CASE 3686:

Application of Gulf Oil Corporation for down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Allison-Abo and Allison-Pennsylvanian Pools in the wellbore of its Federal Mills Well No. 1 located in Unit C of Section 11, Township 9 South, Range 36 East, Lea County, New Mexico, with the provision that no more than one single allowable will be produced from said well.

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EXPLORATION AND PRODUCTION DEPARTMENT—U. S. OPERATIONS ROSWELL DISTRICT

W. B. Hopkins
HISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER F. O. Mortiock

H. A. Rankin

October 17, 1967

P. O. Drawer 1938

Clic 3682 JT 18 AR B 43

Oil Conservation Commission State of New Mexico Fost Office Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Re: Application of Gulf Oil Corporation for a Dual Completion Conventional Drinkard Oil and Brunson-Ellenburger Oil Pools, Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation respectfully requests examiner hearing to consider its request for approval of the dual completion of the J. N. Carson (NCT-A) Well No. 7 located 810 feet from the north line and 2180 feet from the east line of Section 33, T-21-S, R-37-E, Drinkard Oil and Brunson-Ellenburger Oil Pools, Lea County, New Mexico.

In support of this application, the following facts are submitted:

- (1) Applicant's J. N. Carson (NCT-A) Well No. 7 is a single completion in the Brunson-Ellenburger Oil Pool.
- Applicant's J. N. Carson (NCT-A) Lease is in the Central Drinkard Waterflocd Unit and the NW/4 NE/4 of Section 33 is a demand location for a Drinkard well and this well is now needed for waterflood operations.
- Applicant proposes to dual complete the well utilizing two strings of 2-3/8" O.D. tubing with a packer to separate the Drinkard and Brunson formations. A string of 1-1/2" tubing will also be utilized to vent the Brunson zone.
- (4) Attached is completed Form C-107, Application For Multiple Completion, and also attached is a plat of the Central Drinkard Unit.

Respectfully submitted,

GULF OIL CORPORATION

M. I. Taylor DOCKET MAILED

Attachments JHH:sz

> New Mexico Oil Conservation Commission Post Office Box 1980 Hobbs, New Mexico 88240 Mobil Oil Corporation Post Office Box 633 Midland, Texas 79701

NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO APPLICATION FOR MULTIPLE COMPLETION

Form C -107 5-1-61

			Care 3682
Operator	Operator		Date
Gulf Oil Corporati	on	Lea	October 17, 1967
Address		Lease	Well No.
P. O. Box 1938, Roswell		J. N. Carson (NCT-A)	7
of Well B	33	21 South	Range 37 East
			a well in these same pools or in the same
zones within one mile of the subject. 2. If answer is yes, identify one such			d Wall No s
2. It moves to yes, identify one such	Thistance Order Hor	, Operator Lease, and	well No.
3. The following facts are submitted:	llane.		
J. The following faces are submitted.	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Drinkard	-	Brunson-Ellenburger
b. Top and Bottom of			
Pay Section	6480' - 6610'	-	7490' - 7644'
(Perforations)			(open hole)
d. Method of Production	Oil		Oil
d. Method of Production (Flowing or Artificial Lift)	Flow	_	Pump
4. The following are attached. (Pleas			Tomp
izers and/or turbol diameters and setti B. Plat showing the lost of operators of all lost of the los	izers and location thereof, q ng depth, location and type of ocation of all wells on appli leases offsetting applicant's to such multiple completion ished copies of the applicant we well or other acceptable is such log is not available at see on which this well is located	uantities used and top of cement, per of packers and side door chokes, and su cant's lease, all offset wells on offs lease. In from each offset operator, or in lieution. The tion of production is filed it shall ted together with their correct mailing ted together with their correct mailing.	
indicated and the second section of the second seco	an established the resource that a second distribution is become about		MAIN OFFICE TO
			OCT 18 AM 8 113
6. Were all operators listed in Item 5 date of such notification Oct			NO If answer is yes, give
CEDTIFICATE. 1 Abs and and are level	state that I am the Distr	ict Production Managers the	c Gulf Oil Corporation
	company), and that I am aut	thorized by said company to make this	report; and that this report was prepared
		m 9	Creyl
			Signature

*Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

STECINITATION IN STELLONS, HEARINGS, STATE MENTS. EXPERT TESTIMONY, DAILY CO. 120 STAMS SEDG. • P. O. BOX 1092 • PHONE 243-6491 • ALBUQUEROUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 8, 1967

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil)
Corporation for a dual completion,)
Lea County, New Mexico.)

Case 3682

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING



MR. NUTTER: We will call next Case 3682.

MR. HATCH: Case 3682, application of Gulf Oil Corporation for a dual completion, Lea County, New Mexico.

MR. KASTLER: For the record I am Bill Kastler from Roswell, representing Gulf Oil Corporation and our witness is Mr. John H. Hoover.

(Witness sworn.)

JOHN M. MOOVER, called as a witness on behalf of the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KASTLER:

- Q Will you please state your name, by whom you are employed and where and in what position.
- A John Moover, I am employed by Gulf Oil Corporation as District Production Engineer, Roswell, New Mexico.
 - Q Have you ever been convicted of a felony?
 - A Ma,

MR. KASTIER: I submit that this is a credible witness, Mr. Examiner, and that his qualifications can be accepted.

THE WITNESS: Sometimes I wonder.

MR. NUTTER: Oh, we have felons in here all the

time. That is all right, even if he has been, as long as he has gone straight now.

MR. KASTLER: But he hasn't.

- Q All right, what is Gulf seeking in this application?
- A We are seeking approval of a dual completion conventional for the J. N. Carson NCT-A Well Number 7 in the Drinkard and Brunson-Ellenburger Pools, Lea County, New Mexico.

(Whereupon, Applicant's Exhibits 1 through 3 were marked for identification.)

- Q Would you please refer to Exhibit Number 1 and testify what is shown on that exhibit pertinent to this case.
- A Exhibit Number 1 is a plat showing the Central Drinkard Unit. I used this Central Drinkard Unit because the well and the J. N. Carson "A" Lease are within the boundaries of the Central Drinkard Unit. The J. N. Carson "A" Lease is in the unit and if this application is approved for the dual completion of Number 7, it will then be a Central Drinkard Unit for that unit.

The J. N. Carson "A" Lease is described as the northeast quarter, southwest quarter, and the west half, southeast quarter of Section 28, and the northwest quarter, northeast quarter of Section 33, all in Township 21 South,

Range, 37 East.

The J. N. Carson "A" Well Number 7, which is the pertinent well in this case, is colored in red and is located 810 feet from the north line and 2180 feet from the east line of Section 33.

I have also shown on this plat the pilot area, of the pilot injection wells, outlines in green, to show that the proposed dual well is an offset to the pilot, with a two-way push.

- On The Central Drinkard Unit and the waterflood project have already been approved by this Commission, have they not?
- A Yes, they have. Order Number R-2909, which was amended by Order R-2909 A, dated May 10, 1965, and July 13, 1965, respectively, approved the waterflood. Order R-2904, dated May the 6th, 1965, approved the unit.
- O Now, refer to Exhibit Number 1, the northwest of the northeast is an offset location to the pilot waterflood, pilot project, is that not true?
- A Yes, that's correct, and this is a demand location for a Drinkard well for the pilot project. Water injection was started into the injection wells on September 12, 1967, and we need this well, a Drinkard well now at this location

since it will be a two-way push. And we feel that the dual completion of this Carson "A" Number 7 is the most economical means of providing a Drinkard well.

Q Now, I would like to call your attention to Exhibit Number 2. Would you explain what is shown on that Exhibit that is pertinent?

A Yes, Exhibit Number 2 is a log for the J. N. Carson "A" Well Number 7. This well is now a single zone completion in the Brunson-Ellenburger Pool.

We have shown on this log the top of the Drinkard pay zone at 6430 and the base of the Drinkard pay zone at 6610. We have bracketed the proposed performations for the Drinkard. We show the top of the Brunson pay at 7490. The Brunson is being produced from the open hole interval.

Q Now, refer to Exhibit Number 3, please identify it and explain what you wish to explain on that.

A Exhibit Number 3 is the proposed mechanical installation for the dual completion. The well has thirteen and three-eighths-inch "OD" casing, set at 291 feet and the cement at a thousand and sixty feet. Seven-inch casing, set at 7490 feet, cemented with 800 sacks, the top of the cement at 2680 feet. Total depth of the well, 7644 feet.

since it will be a two-way push. And we feel that the dual completion of this Carson "A" Number 7 is the most economical means of providing a Drinkard well.

Q Now, I would like to call your attention to Exhibit Number 2. Would you explain what is shown on that Exhibit that is pertinent?

A Yes, Exhibit Number 2 is a log for the J. N. Carson "A" Well Number 7. This well is now a single zone completion in the Brunson-Ellenburger Pool.

We have shown on this log the top of the Drinkard pay zone at 6430 and the base of the Drinkard pay zone at 6610. We have bracketed the proposed performations for the Drinkard. We show the top of the Brunson pay at 7490. The Brunson is being produced from the open hole interval.

Q Now, refer to Exhibit Number 3, please identify it and explain what you wish to explain on that.

A Exhibit Number 3 is the proposed mechanical installation for the dual completion. The well has thirteen and three-eighths-inch "OD" casing, set at 291 feet and the cement at a thousand and sixty feet. Seven-inch casing, set at 7490 feet, cemented with 800 sacks, the top of the cement at 2680 feet. Total depth of the well, 7644 feet.

We propose to install a string of two and three-eighths-inch tubing, set at approximately 6550 feet. This tubing will be set in a Baker Model "D" bypass parallel string anchor, which will be set at 6550 feet. That two and three-eighths-inch tubing will be for the Drinkard production, and then we will have two and three-eighths-inch tubing set at approximately 7600 feet for the Brunson.

We will have a Baker Model "A" anchor parallel flow tube on the packer, set at 6630, a Baker Model "F A" retainer production packer set at 6630.

We will have a string of one and a half-inch tubing set at approximately 6630 feet which we use to vent the Brunson zone. The Brunson production will be pumped from below a packer which makes the vent tubing desirable.

- Q Is this proposed method of dualling considered to be conventional?
- A Yes, it is. It would be considered conventional. We have just the one-inch and a half tubing, vent tubing, which would be in addition probably to most conventionals.
- Q Do you have any pressure information and fluid gravities for the Brunson and the Drinkard pays?
 - A The gravity of the Brunson production is approximately

37.7 degrees API corrected, and the Drinkard 36 degrees.

The Drinkard and Brunson production is sweet crude and we anticipate no corrosion problems.

We have no bottom hole pressure information, at least, recent bottom hole pressure information and we can say that the pressures would be very low and there would be a samll differential across the packer.

For what it is worth, I might give what we have, the most recent bottom hole pressures, which will not be this well but it will be in the area. In 1964, we made a bottom hole pressure on our Eubanks Number 4, which is in Unit H of Section 22, 21 South, 37 East, which would be up to the right-hand corner of the Exhibit Number 1, the bottom hole pressure at a datum of 3,050 feet, this would be for the Drinkard, was only 778 pounds.

The last Brunson bottom hole pressure was made in November of 1954 and that was on the Eunice King Number 21, which is in Unit H of Section 28, 21 South, 37 East. The bottom hole pressure at a minus 4300 was 1069 PSIG.

Q The differential?

A So that, just throwing out those old bottom hole pressures, stating the fact that they are old to show that the pressures were well down at that time and are even

lower now.

Q What production do you expect from these two zones if this application is approved?

A The average Brunson production for September, 1967, for the Carson "A" Well Number 7 was approximately 14 barrels of oil per day, pumping. The average production from the Central Drinkard wells, during September, was approximately 6 barrels per day and we would anticipate this volume initially.

Q Do you have costs figures for this dual as compared to drilling a new single Drinkard well?

A Yes. We estimate that this well can be dualled as shown on Exhibit Number 3 for approximately \$25,000. To drill a single-zone Drinkard well would cost approximately \$75,000, or a saving of approximately \$50,000.

- Q Do you have anything further to add in this case?
- A Yes, one thing. If this dual application is approved and when the actual physical work is done, the well will then be the J. N. Carson "NCTA" Number 7 for the Brunson-Ellenburger production, and will be the Central Drinkard Unit Number 128 for the Drinkard production.
 - O Have all offset operators been given notice?
 - A Yes, they have.
- Q Is this application in the interest of conservation and prevention of waste?

- A Yes, it is.
- Q Gulf makes this application as the unit operator of the Central Drinkard Unit, is that correct?
 - A That's correct.

MR. KASTLER: This ends the questions I have on Direct. I would like at this time, Mr. Examiner, to move that Exhibits 1, 2 and 3 be admitted into evidence.

MR. NUTTER: Gulf's Exhibits 1, 2 and 3 will be admitted in evidence.

(Whereupon, Gulf's Exhibit's
1, 2 and 3 were admitted in
evidence.)

CROSS EXAMINATION

BY MR. NUTTER:

- Q Mr. Hoover, what is the producing capacity of the Brunson at this time?
- A September production from that well, Number 7, which is in the Brunson-Ellenburger Pool, was average for the month of September, 14 barrels per day, pumping.
- Q Oh, that's right, and it is a Brunson well at the present time?
 - A Yes, it is.
- Q So that figure you gave for the Brunson was for this well?

A Yes, sir, and the Drinkard production I gave was just the average of the Central Drinkard.

- Q All the wells?
- A Yes, sir.
- Q Of course you expect that the six would come up as a result of the flood, I presume?
 - A We hope so.
- Q Are there any successful Drinkard floods going at the present time?
 - A This is the first one.
 - Q First Drinkard flood?
 - A Yes, sir.
- Q Now, Mr. Hoover, in your opinion, is this dual completion of a nature that would permit that production of these two zones to depletion, without waste?
- A I believe that it will allow the production down to the economic limit, the same as a single zone well in effect.
 - Q I see.

MR. NUTTER: Are there any other questions of Mr. Hoover? You may be excused.

(Witness excused.)

MR. NUTTER: Does anyone have anything further they wish to -- do you have anything further, Mr. Kastler?

MR. KASTLER: Nothing.

MR. NUTTER: Does anyone have anything further to offer in Case 3682? We will take the case under advisement and a 15 minute recess.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO)

I, JERRY M. POTTS, Court Reporter, do hereby certify that the foregoing and attached transcript of Proceedings before the New Mexico Oil Conservation Commission Examiner at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

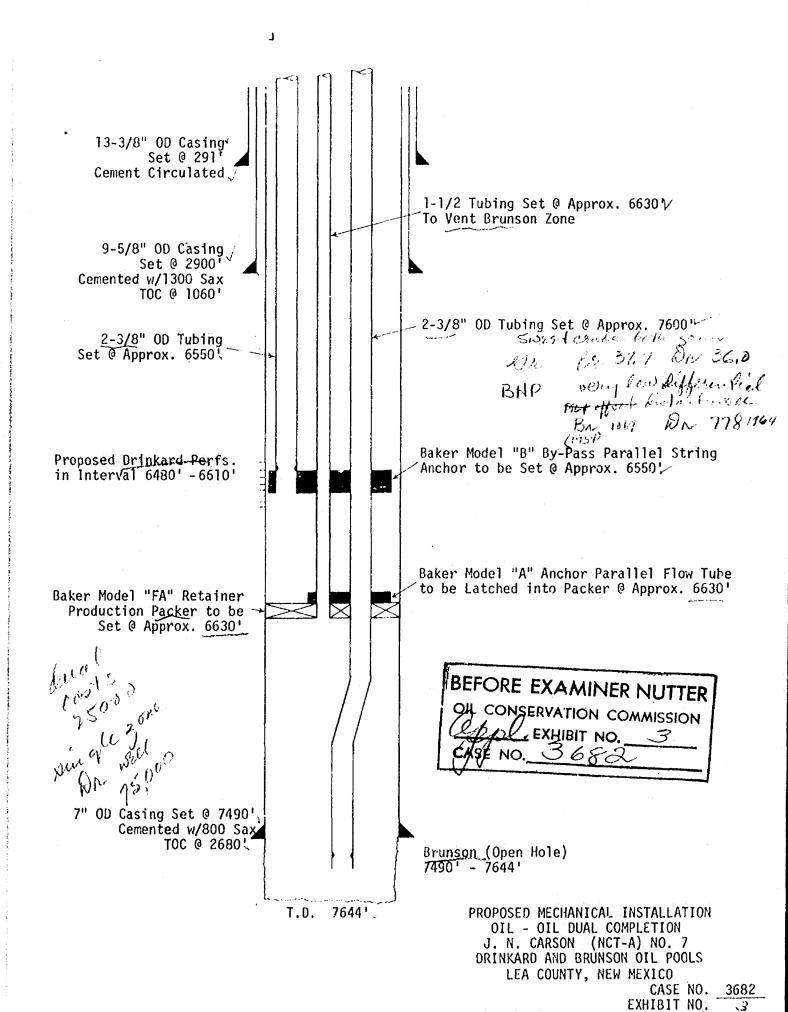
IN WITNESS WHEREOF I have affixed my hand and notarial seal this 5 day of December, 1967.

Notary Public - Court Reporter

My Commission Expires:

July 10, 1970

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GULF OIL CORPORATION

NOVEMBER 8, 1967