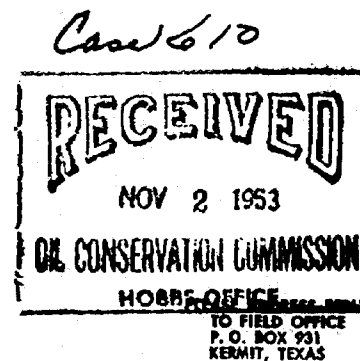


Case No.

610

Application, Transcript,  
Small Exhibits, Etc.

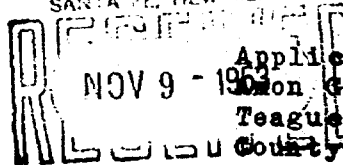
AMON G. CARTER  
P.O. Box 1036  
FORT WORTH, TEXAS



October 31st, 1953.

Oil Conservation Commission,  
State of New Mexico,  
Santa Fe, New Mexico.

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO



Application to Dually Complete  
Amon G. Carter - Hill No. 4-M,  
Teague Devonian Pool, Lea  
County, New Mexico.

Gentlemen:--

By this letter of application Amon G. Carter wishes to state the following:

(1) That Amon G. Carter - Hill No. 4-M, located in the NE 1/4 of NE 1/4 of Section 34, T-23-S, R-37-E, Lea County, New Mexico was drilled to a total depth of 9,400 feet and seven inch casing was set at 9,399. The attached Exhibit "A" shows the location of this well on the Amon G. Carter Hill Lease together with the location of offset wells.

(2) That casing in said well was cemented from bottom with 65 sacks regular cement, plus five percent Howcogel and 65 cubic feet of Signalite with Halliburton DV Tool set at 7,704. Three hours later cemented through DV Tool with 200 sacks regular cement, plus three percent Howcogel. Temperature survey showed top of second stage cement to be approximately 6,300 feet.

(3) On drill stem test in this well from 7,150 to 7,194, well produced at rate of two million cubic feet gas per day and flowed 17 barrels distillate in one-half hour, gravity 59.6 at sixty degrees. Well was also tested from 9,107 to 9,145, tool open four hours, gas to surface in 20 minutes; circulated out 20 barrels clean oil to tank. Also tested from 9,147 to 9,320, tool open four hours, gas to surface in seven minutes; recovered 7,000 feet clean oil.

(4) Applicant proposes to dually complete the well in the following manner:

(a) Perforate seven inch casing opposite the McKee Producing Horizon from 9,120 to 9,140 and from 9,150 to 9,190 and from 9,224 to 9,244 and from 9,252 to 9,310.

(b) Perforate seven inch casing opposite Upper Devonian Horizon from 7,150 to 7,162 and from 7,172 to 7,196.

(c) Set production type packer in seven inch casing at approximately 7,476, being below the upper perforations and above the lower perforations, packer set on 2-1/2 inch tubing to separate the two producing horizons, said tubing to also contain Camco retrievable valve, which valve may be opened or closed with blank valve run

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OIL CONSERVATION COMMISSION

HOBBS-OFFICE

on wire line; valve to be opened for cleaning up gas section and closed for producing oil from McKee Section, and which will permit the taking of bottom hole pressures when absolutely necessary by pulling 1-1/4" tubing.

(d) Set Bradford Tubing Packer on 1-1/4" tubing in 2-1/2 inch tubing above seating nipple and standing valve set at 3,075. Run Camco Gas Lift Valves on 1-1/4" tubing.

(e) Produce McKee Oil through 1-1/4" tubing with gas lift valves with gas injected from surface into annulus between 1-1/4 inch and 2-1/2 inch tubing. Produce gas from Upper Devonian Horizon from annulus between 2-1/2 inch tubing and seven inch casing.

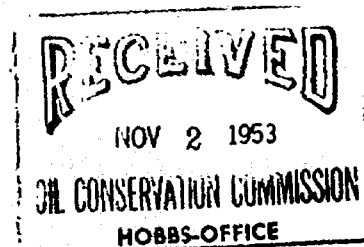
(5) Exhibit "B" attached shows diagrammatic sketch of all casing, tubing and production equipment to be installed in well.

(6) Exhibit "C" attached is a cross section showing the relative position of the various producing horizons in Hill Wells 1-E, 1-D, 2-E and 4-M.

Separation of Zones. Amon G. Carter No. 1-D Hill, a lower Devonian oil producer, is located approximately 180 feet North of Hill No. 4-M. This well has casing set at 7,104 and is currently producing from the open hole to a total depth of 7,484. It is now being produced by gas lift with flow valves and outside gas. A recent bottom hole pressure survey taken October 19th, 1953, after a shutin of 24.5 hours shows a pressure of 797 psig at 7,448 feet (-4177). Fluid level was 6,315 feet from the surface and the tubing pressure was 330 psig.

Amon G. Carter No. 4-M Hill drillstem tested the upper Devonian section from 7,150 feet to 7,194 feet, recovering primarily gas with 59.6 gravity distillate. Drillstem test above the gas distillate zone of the interval from 7,119 feet to 7,152 feet (Basal Permian) showed section was dense and relatively non-permeable. Drillstem test below the gas distillate zone of the interval from 7,194 feet to 7,247 feet recovered primarily oil and gas cut drilling mud and sulphur water. A bottom hole pressure survey was taken of the tested gas distillate zone after casing had been perforated between 7,150 feet and 7,196 feet and the perforation washed with 1,000 gallons mud acid. The well was shut in for six hours before pressure measurement and the recorded pressure was 2,513 psig at 7,100 feet. No fluid was indicated and the tubing pressure was 1899 psig.

The McKee Sand zone occurs below a depth of 9,120 feet and is separated from the upper Devonian gas distillate section by approximately 870 feet of dolomites and shale. The normal Teague Field well in this zone does not have sufficient energy available for eruptive flow and must be artificially lifted shortly after completion.



Conclusions. The practicability of a dual completion of the Devonian Section and McKee Sand we think is apparent. The only question that might be raised by anyone is as to whether or not there is a definite distinction between the Upper Devonian section from which it is proposed to produce gas in Well No. 4-M and the Lower Devonian section from which Well No. 1-D is presently producing oil. We feel that the definite variation in bottom hole pressures of the two sections and the difference in gravity of the fluids produced; the fact that Well No. 1-D must be artificially lifted and a study of the comparative drillstem test intervals on the wells shown on our cross section, all show conclusively that the gas produced in Well No. 4-M is from a separate reservoir and could not be coming from the same reservoir from which Wells 1-D and 2-D are producing Devonian Oil on the same lease. Some type of shear or thrust fault is suspected to exist between Well No. 1-D and Well No. 4-M, however, its actual mode of occurrence is difficult to establish.

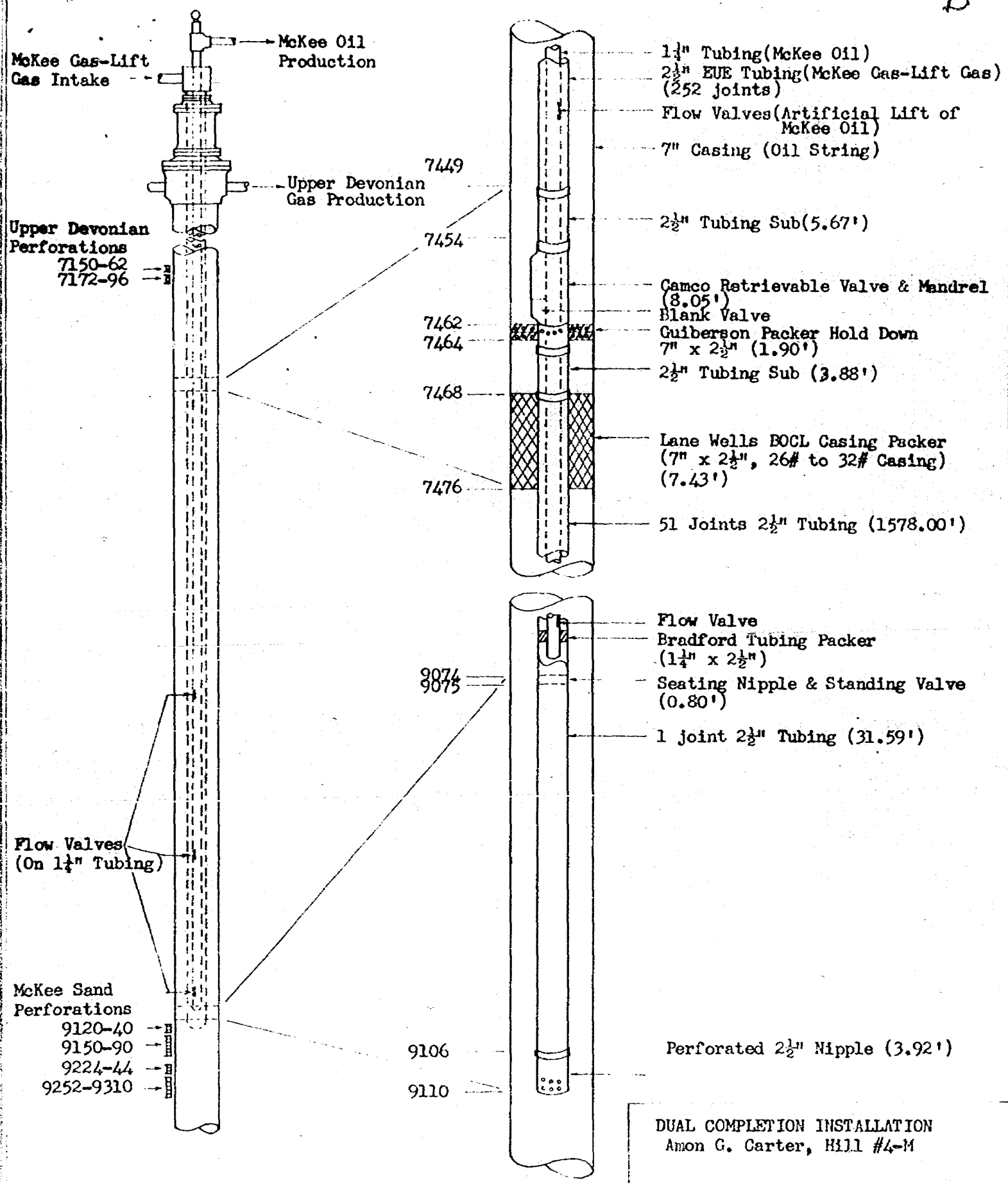
A copy of this application is being furnished each of the operators offsetting this lease and we are requesting a waiver from such offset operators giving their consent to such dual completion. Upon receipt of such waivers, they will be promptly filed with your office and upon receipt of same, we shall appreciate it very much if the Commission will authorize this dual completion without a hearing as the gas from the Upper Devonian section is badly needed for gas lift purposes on our Hill Lease.

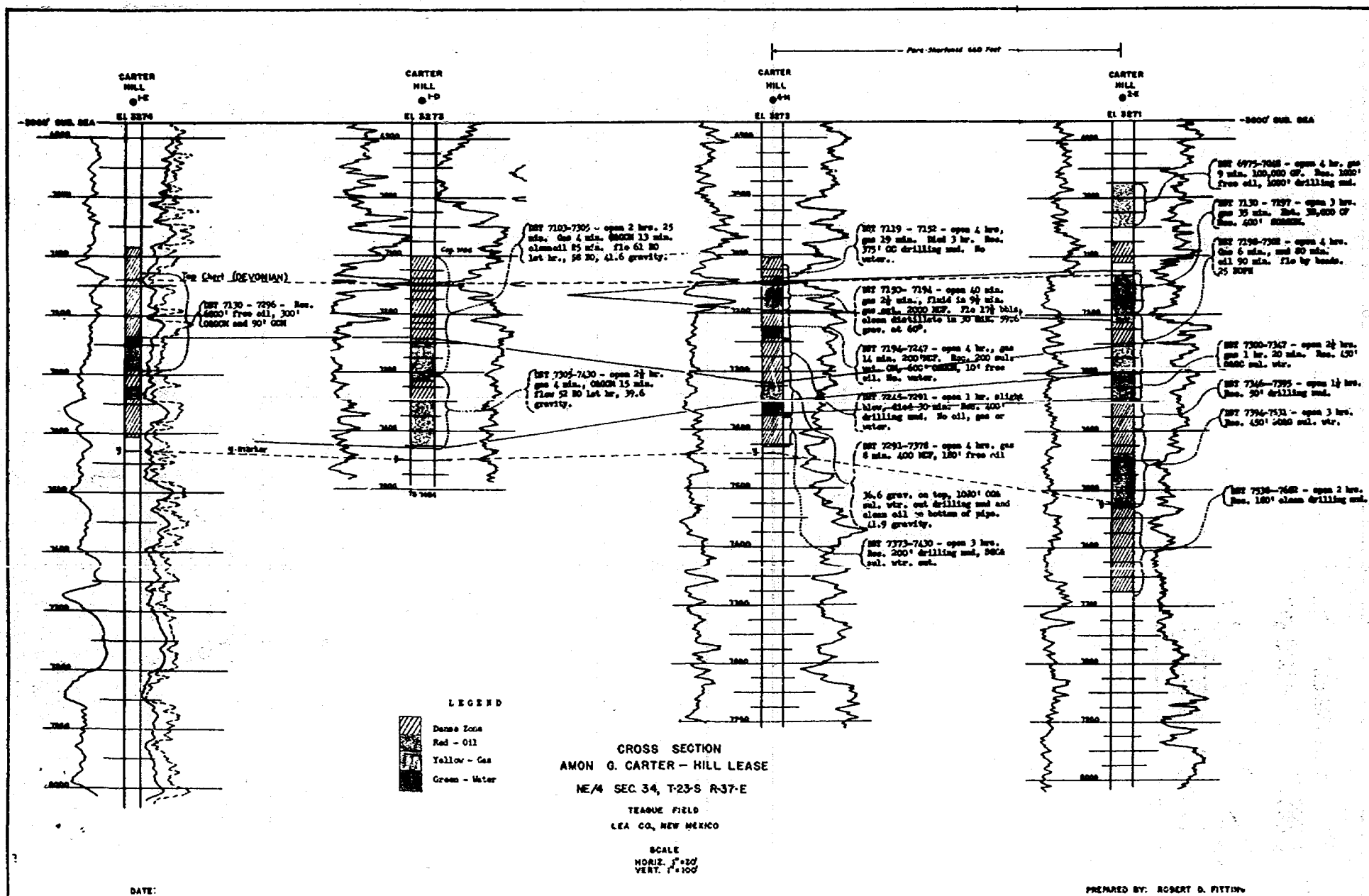
Yours very truly,

AMON G. CARTER

By  Field Manager.

B





OIL CONSERVATION COMMISSION  
P. O. BOX 871  
SANTA FE, NEW MEXICO

January 22, 1954

Mr. Roy Carter  
ARON G. CARTER  
Box 1688  
Kernit, Texas

Dear Mr. Carter:

RE: Order R-402 in Case 610

In order that you may complete your file, we enclose signed copies of Order R-402 issued by the Commission in dismissal of Case No. 610.

Very truly yours,

W. B. Macey  
Chief Engineer

WMH:mr

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P  
Y

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

January 22, 1954

Mr. Roy Carter  
ANSON G. CARTER  
Box 1688  
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W. B. Macey  
Chief Engineer

WBM:mr

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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. 610  
ORDER NO. R-402

THE APPLICATION OF AMON G. CARTER  
FOR PERMISSION TO EFFECT DUAL COMPLETION  
(GAS-OIL) OF THE AMON G. CARTER HILL  
WELL NO. 4-M, NE/4 NE/4 SECTION 34,  
TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM,  
LEA COUNTY, NEW MEXICO.

DISMISSAL ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 17, 1953,  
at Santa Fe, New Mexico, before the Oil Conservation Commission of New  
Mexico, hereinafter referred to as the "Commission."

NOW, on this 20<sup>th</sup> day of January, 1954, the Commission, a  
quorum being present, having considered the applicant's letter of November  
28, 1953, and the request for dismissal of the case contained therein,

FINDS:

That applicant's motion for dismissal of the case is well taken, and

IT IS THEREFORE ORDERED:

That Case 610 be, and the same hereby is dismissed.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*E. L. Mechem*  
Edwin L. Mechem, Chairman

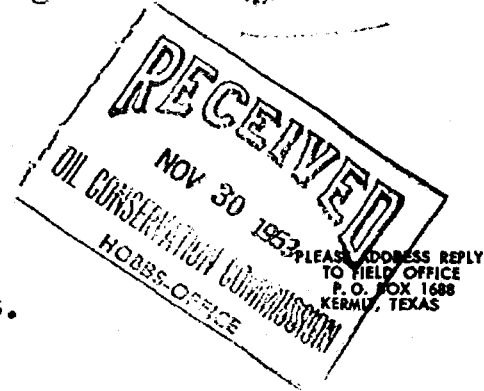
*E. S. Walker*  
E. S. Walker, Member

*R. R. Spurrier*  
R. R. Spurrier, Member and  
Secretary

SEAL

*born*  
AMON G. CARTER  
P.O. Box 1036  
FORT WORTH, TEXAS

November 28th, 1953.



Oil Conservation Commission,  
State of New Mexico,  
Santa Fe, New Mexico.

Re: Application to Dually  
Complete Amon G. Carter -  
Hill No. 4-M, Teague  
Devonian Field, Lea  
County, N. M.

Gentlemen:--

Please refer to our application of October 31st,  
1953 for permission to dually complete the above well in the  
Upper Devonian Horizon and the McKee Horizon.

Please be advised that after the filing of above  
application we made sufficient preliminary tests of the Upper  
Devonian Section to determine that the volume of gas evidenced  
by the first two tests could not be maintained. In fact the gas  
volume had declined to such extent that it did not appear com-  
mercially feasible to undertake to produce gas from this horizon.

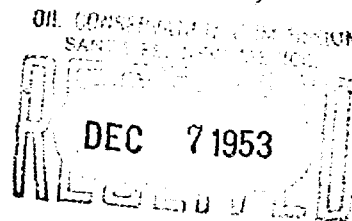
We have therefore squeezed off the perforations in  
the 7 inch casing from 7,150 to 7,196 and are now in process of  
completing this well as a single producer from the McKee Horizon.  
Complete information will be filed on the well in the usual manner  
as soon as we have secured a potential test on the McKee Section.

Yours very truly,

AMON G. CARTER

BY *Ray D. Carter*

cc - The Texas Company,  
R. Olsen Oil Company,  
The Atlantic Refining Co.,  
Gulf Oil Corporation,



OK

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:

ORDER NO. R-402  
CASE NO. 610

THE APPLICATION OF AMON G. CARTER  
FOR PERMISSION TO EFFECT DUAL COM-  
PLETION (GAS-OIL) OF THE AMONG G. CARTER  
HILL WELL NO. 4-M, NE/4 NE/4 SECTION  
34, TOWNSHIP 23 SOUTH, RANGE 37 EAST,  
NMFM, LEA COUNTY, NEW MEXICO.

DISMISSAL ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 17, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this            day of January, 1954, the Commission, a quorum being present, having considered the applicant's letter of November 28, 1953, and the request for dismissal of the case contained therein,

FINDS:

That applicant's motion for dismissal of the case is well taken, and

IT IS THEREFORE ORDERED:

That Case 610 be, and the same hereby is dismissed.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

Edwin L. Mechem, Chairman

E. S. Walker, Member

R. R. Spurrier, <sup>Member and</sup> Secretary

SEAL

In the Matter of:

Case No. 610

MR. SPURRIER: The meeting will come to order, please.

MR. MACY: We have a letter from Amon G. Carter, pertaining to this application, and I will put it in the record. Addressed to the Oil Conservation Commission, State of New Mexico, Santa Fe, New Mexico, "Gentlemen: Please refer to our application of October 31st, 1953 for permission to dually complete the above well in the Upper Devonian Horizon and the McKee Horizon.

**ADA DEARNLEY & ASSOCIATES**  
COURT REPORTERS  
ROOM 105-106, EL CORTEZ BLDG.  
PHONES 7-3645 AND 3-9546  
ALBUQUERQUE, NEW MEXICO

We have therefore squeezed off the perforations in the 7 inch casing from 7,150 to 7,196 and are now in process of completing this well as a single producer from the McKee Horizon. Complete information will be filed on the well in the usual manner as soon as we have secured a potential test on the McKee Section. Yours very truly, Amon G. Carter".

MR. SPURRIER: Is there any objection to Mr. Carter's motion? Without objection the Commission will dismiss the case. The next case is Case No. 608.

STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO )

I HEREBY CERTIFY that the foregoing and attached transcript of hearing in Case No. 610 (dismissed) before the Oil Conservation Commission, State of New Mexico, at Santa Fe, on December 17, 1953, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 3<sup>rd</sup> day of December, 1953.

Ada Dearnley  
COURT REPORTER

ADA DEARNLEY & ASSOCIATES  
COURT REPORTERS  
ROOM 105-106, EL CORTEZ BLDG.  
PHONES 7-9545 AND 8-9545  
ALBUQUERQUE, NEW MEXICO