

Case No.

479

Application, Transcript,
Small Exhibits, Etc.

CASE 479: Shell dual completion Devonian
St. #1, SWNE 20-21S-36E (Eunice-Monument),
oil from Queen-Grayburg, gas from Yates

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. 479
ORDER No. R-270

THE APPLICATION OF SHELL OIL
COMPANY FOR AN ORDER GRANTING
PERMISSION TO DUALLY COMPLETE
AND PRODUCE ITS SHELL DEVONIAN
STATE, WELL NO. 1, LOCATED IN THE
SW/4 NE/4 OF SECTION 20, TOWNSHIP
21 SOUTH, RANGE 36 EAST, NMPM, LEA
COUNTY, NEW MEXICO, IN THE EUNICE-
MONUMENT POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

NOW, on this 27th day of February, 1953, 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 Shell-Devonian State, Well No. 1, SW/4 NE/4, Section 20, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, was completed in September, 1937, as an oil well producing from the Queen-Grayburg formation in the open-hole interval 3830-3921, having drilled through the Yates gas zone at an approximate depth of 3150-3600 feet.

(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, Shell Oil Company, be and it hereby is authorized to dually complete and produce its Shell Devonian State, Well No. 1, SW/4 NE/4, Section 20, Township 21 South, Range 36 East, NMPM, Lea County, New Mexico, in such a manner that gas from the Yates formation may be produced through the annular space between the casing and the tubing and oil from the Queen-Grayburg formation through the tubing by proper perforations and the 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.

PROVIDED FURTHER, that upon the actual dual completion of such subject well applicant shall submit to the District Office of the Commission in which the subject well is located Form C-103, Form C-104 and Form C-110 outlining the information required on these forms by existing Rules and Regulations.

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

E. L. Mechem
EDWIN L. MECHEM, Chairman

E. S. Walker
E. S. WALKER, Member

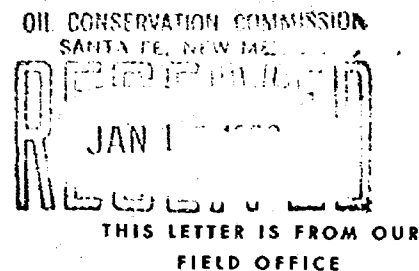
R. R. Spurr
R. R. SPURRIER, Secretary

S E A L



SHELL OIL COMPANY

Case 479



AT Box 1957
Hobbs, New Mexico

January 9, 1953

Subject: Application to Dually Complete
Shell-Devonian State 1, Eunice Field
Lea County, New Mexico as a Yates
(Gas) Queen-Grayburg (Oil) Well

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

Gentlemen:

By means of this application the Shell Oil Company wishes to state the following:

a) That Shell-Devonian State 1, located in the SW/4 of the NE/4 of Section 20, T-21-S, R-36-E, was completed in December, 1934 at a plugged back total depth of 4038 feet and in September 1937 was recompleted at a plugged back total depth of 3921 feet. The appended Exhibit A shows the location of this and all other wells on the Shell-Devonian State lease together with the locations of all offset wells.

b) That the said well was recompleted as an oil well producing from the interval 3830 - 3921 feet in the Queen-Grayburg formation after having been drilled through the Yates gas productive interval extending from approximately 3150 feet to 3600 feet. The appended Exhibit B is a type log of the Eunice-Monument area. It is planned to run a radioactive survey of Shell-Devonian State 1 during the dual completion operation and a copy of the log will be filed with the Commission.

c.) That the applicant proposed to (1) perforate the 7-inch casing opposite the Yates gas-productive horizons and (2) set a Baker retainer production packer at approximately 3810 feet in the 7-inch casing. The exact interval(s) to be perforated will be selected after the above mentioned radio-active survey has been completed.

d) That the applicant proposes to dually complete the said well to produce oil from the Queen-Grayburg formation through the tubing and gas from the Yates formation through the 7-inch casing. The manner and method of the proposed dual completion are shown on Exhibit C.

e) That the granting of this application for permission to produce dually oil from the Queen-Grayburg formation and gas from the Yates formation is in the interests of conservation and the protection of correlative rights.

Oil Conservation Commission

January 9, 1953

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f) That the applicant will do such things as may be required of it by the New Mexico Oil Conservation Commission in the maintenance of separation of production from said two horizons.

g) That the manner and method of the proposed dual completion is mechanically feasible and practical.

Therefore, the Shell Oil Company requests that the Oil Conservation Commission set a certain day upon which this application may be heard and after said hearing to grant permission in order that the applicant may dually complete Shell-Devonian State 1 so that oil from the Queen-Grayburg formation may be produced through the tubing and gas from the Yates formation through the casing.

Respectfully submitted,

SHELL OIL COMPANY

BY: C. R. Bickel

JDS:BD

Attachments (3)

Tree Showing Rams Closed

Oil Production

Gas Flow Line

9 5/8" Casing Cemented @ 1696'
w/ 450 sxs. neat

Casing Jet Perforated
w/ 4-21 gram shots / foot
Approx. From 3150' to 3600'

Baker Model "D" Retainer
Production Packer
Set @ 3810'

Camco Type MM Retrievable Valve Mandrel,
Blanked Off, @ 3790'

7" Casing Cemented @ 3830' w/ 350 sxs neat

Tubing Perforations

PB TD 3921'

Detail of Mechanical Equipment to be
Installed in Dually Completed Eunice
and Monument Wells for Submission to
Oil Conservation Commission

Exhibit C - To Accompany Application to Dually Complete Shell-Devonian State 1, Eunice
Field

Log to

Artisan

3/15/54