

BEFORE THE OIL CONSERVATION COMMISSION OF THE
STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO FOR THE
PURPOSE OF CONSIDERING:

CASE NO. 157
ORDER NO. ~~80~~ 801

IN THE MATTER OF APPLICATION OF SKELLY
OIL COMPANY FOR A SPECIAL ORDER AUTHORIZING
DUAL COMPLETION FOR OIL AND GAS PRODUCTION
FROM TWO SEPARATE ZONES FROM A SINGLE WELL
BORE OF ITS NO. 1, MEXICO "D" WELL LOCATED
1980 FEET FROM THE SOUTH LINE AND 1980 FEET
FROM THE EAST LINE (NW/4 SE/4) OF SECTION
36, TOWNSHIP 23 SOUTH, RANGE 36 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 10:00 o'clock A.M., September 30, 1948, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 19th day of November 1948 the Commission having before it for consideration the testimony and other evidence adduced at the hearing of said cause, together with the application of petitioner, and being fully advised in the premises:

FINDS:

1. That public notice of hearing upon said application having been given as required by law fixing the 30th day of September 1948 at Santa Fe, New Mexico, as the time and place for hearing, the Commission has jurisdiction of the case;
2. That in previous dual completion cases before the Commission, and in this case, it appears questionable whether or not mechanical devices are available to absolutely prevent comingling of gas and fluid hydrocarbons from two or more different strata through single well bore;
3. That this well is a diagonal offset to the dually completed Shell State No. 2-C, under authority of Commission Order No. 750.
4. That additional evidence as to the efficiency of packers and mechanical devices in the matter of dual production by a single well bore in the Langlie-Mattix Pool could be had by granting the application of the petitioner.

IT IS THEREFORE ORDERED BY THE COMMISSION that effective September 30, 1948, Skelly Oil Company, petitioner, be, and it hereby is granted permission to dually complete and produce its No. 1 Mexico "D" well in the Langlie-Mattix Pool, Lea County, New Mexico, in such manner that gas and/or fluid hydrocarbons produced through the tubing from the 3400-3590' zone, and that gas is produced through the annulus, or space between the tubing, and casing of said well from the upper horizon between the depths of 2900 feet and 3000 feet;

PROVIDED, HOWEVER, that said Mexico "D" No. 1 Well shall be dually completed and produced in such manner that there is absolutely no comingling within the bore of the well of gas or fluid hydrocarbons produced from each of the separate productive stratum encountered therein. In order to prevent

any comingling of gas or fluid hydrocarbons within said well bore, the dual completion thereof shall be made as follows: The well having been completed to the 3590-foot horizon through appropriate casing perforations at the proper depth, the upper zone in like manner may be produced by casing perforations at the 2900 to 3000-foot interval, and each zone or formation carefully tested. Such test and subsequent tests shall be witnessed by an agent of the Commission and by representatives of any offset operator, if any there be. In event intercommunication between the zones behind the casing is indicated by formation tests, corrective measures shall be applied and such tests continued and corrective measures applied, until it is known that no intercommunication between the respective zones behind the casing exists. Should the test or tests establish the absence of intercommunication between the horizons outside of the casing, the petitioner herein may proceed with the dual completion of said well as follows: A suitable packer of the type approved by petitioner's consulting engineer shall be so set as to effectively prevent migration of reservoir gas and fluid hydrocarbons from one zone to another within the casing; the well shall be tubed through the packer; provided further, however, that it shall not be necessary for petitioner to install a circulating port or choke above the packer, should the upper horizon reflect only gas production; nothing herein, however, shall be construed to preclude the installation of such port above the packer if conditions may require, but in case of non-installation above the packer, the circulating device shall be incorporated in the packer; and provided, further, that any packer installed in said well shall be properly tested for leakage at the time of the dual completion and shall be carefully retested at six-month intervals thereafter. The original and all subsequent tests shall be witnessed by a representative of the Commission and by representatives of offset operators, if any there be, and the results of each test properly attested to by the petitioner and all the witnesses and shall be filed with the Commission within ten days after the actual completion of each such test.

IT IS FURTHER PROVIDED that in event intercommunication between the zones is found or is suspected by any witness as the result of any test, the well shall be immediately shut in, the Commission notified, and prompt and immediate action shall be taken by the petitioner to prevent such intercommunication, following which, a retest for leakage shall be made forthwith and witnessed as aforesaid; provided, further, that intercommunication tests between the zones required by this order shall be made as follows: Both zones shall be simultaneously closed in and kept closed a sufficient length of time to reach stabilization as determined by a dead weight tester. A recording depth pressure gauge shall then be run at the maximum depth possible; the zone open to the annulus shall be produced at a maximum safe rate until stabilized flow conditions are obtained. In event a significant decrease in pressure is shown by the recording pressure gauge, intercommunication shall be deemed to exist.

PROVIDED, FURTHER, that said well must be equipped in such manner that reservoir pressures may be determined on each of the two specified strata separately, and further that said well must be equipped with all necessary connections required to permit recording meters to be installed and used at any time, so that when such meters are installed all natural gas produced from each separate stratum may be accurately measured and the gas-oil ratio determined.

The petitioner shall submit in writing any changes in actual procedure in completion of said well. Upon final completion of said dual completion of said well, the petitioner shall file with the Commission a report of the step by step procedure followed in producing each zone and an exposition of the merits and demerits of the equipment and mechanical devices used and employed to effect the separation of the productive horizons.

IT IS FURTHER ORDERED that upon failure of the petitioner herein to comply with any provision or provisions of this order, the authority granted hereunder shall immediately terminate.

IT IS FURTHER ORDERED that this case be and it is hereby held open on the docket for such further order or orders as may seem necessary or convenient to the Commission, and shall not be a precedent except in offset cases.

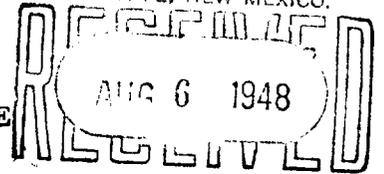
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

R. M. Quaby
CHAIRMAN

John E. Miles
MEMBER

R. L. Guisard
SECRETARY

BEFORE THE OIL CONSERVATION COMMISSION OF THE
STATE OF NEW MEXICO

Graham

IN THE MATTER OF THE APPLICATION
OF SKELLY OIL COMPANY FOR A SPECIAL
ORDER AUTHORIZING DUAL COMPLETION
FOR OIL AND GAS PRODUCTION FROM TWO
SEPARATE ZONES FROM A SINGLE WELL
BORE OF ITS NO. 1, MEXICO "D"
LEASE LOCATED IN THE CENTER OF NE/4,
SE/4 OF SECTION 36, TWP. 23S, R36E,
N.M.P.M., LANGLIE MATTIX FIELD, LEA
COUNTY, NEW MEXICO

CASE NO. 157

ORDER NO. _____

APPLICATION

Comes now Skelly Oil Company, Tulsa, Oklahoma, and alleges the following:

1. That it is now in the process of drilling and completing its No. 1 Mexico "D" Well in the center of the (NE/4, SE/4 of Section 36, Township 23 South, Range 36 East, which well is located on an 80 acre lease described as the W/2, SE/4 of Section 36.
2. That on March 8, 1948, the Commission issued Order No. 750 in Case No. 127 granting Ralph Lowe, effective February 17, 1948, permission to dually complete and produce his Shell-State No. 2-C well in the Langlie-Mattix Pool, Lea County, New Mexico, in such manner that gas and/or fluid hydrocarbons are produced through the annulus or space between the tubing and casing from the upper horizon at approximately 2900 feet, and oil through the tubing at an approximate depth of 3600 feet.
3. That to the best knowledge of this applicant, said Ralph Lowe, Shell-State No. 2-C well is now dually completed and producing from said two zones as heretofore stated.
4. That said well is a west offset to the applicants tract, and a diagonal southwest offset to its No. 1 Mexico "D" well.
5. That in the protection of correlative rights, applicants requests herein permission to dual complete said No. 1 Mexico "D" well.
6. That applicant believes that the production of oil in the deeper zone at approximately 3600 feet is of such small volume that it is uneconomical to sustain a separate well to said formation, and because of the offset production, applicant desires to so dual complete its well.
7. That applicant will do such things as may be required of it as set forth in said Order No. 750 in Case No. 127 or such other reasonable rules or requirement.

Wherefore applicant prays that this Commission set this application for a day certain to be heard after the giving of notice as required by law and its orders, rules and regulations, and that after said hearing that it grant such relief as requested herein and such other orders, rules and regulations as it may deem necessary in order to prevent waste and protect the correlative rights of this applicant.

SKELLY OIL COMPANY

George W. Selinger
By: _____
George W. Selinger