

Rule 107 of Commission Rules & Regulations, (Slit Hole completion)

Case No.

1691

Application, Transcript,
Small Exhibits, Etc.

DOCKET: REGULAR HEARING JUNE 9, 1959

Oil Conservation Commission 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

- ALLOWABLE:
- (1) Consideration of the oil allowable for July, 1959.
 - (2) Consideration of the allowable production of gas for July, 1959, for six prorated pools in Lea County, New Mexico; consideration of the allowable production of gas from seven prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for July, 1959, and also presentation of purchaser's nominations for the six-month period beginning August 1, 1959, for seven prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico.

CONTINUED CASES

CASE 1522: Application of General Petroleum, Inc., for an amendment to Order No. R-1299. Applicant, in the above-styled cause, seeks an order amending Order No. R-1299 to provide that any merchantable oil recovered from sediment oil shall not be charged against the allowable for wells on the originating lease, which amendment would revise Rule 311.

CASE 1569: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the promulgation of an order prohibiting the flaring of casinghead gas from oil wells in San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico.

NEW CASES

CASE 1691: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider amending Rule 107 of the Commission Rules and Regulations to provide that in certain instances "slim hole" completions may be approved without notice and hearing.

CASE 1689: Southeastern New Mexico Nomenclature Case calling for an Order creating new pools and extending existing pools in Lea, Chaves and Eddy Counties, New Mexico.

- (a) Create a new oil pool for San Andres production, designated as the Four Mile Draw-San Andres Pool, and described as:

TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM
Section 3: SW/4

- (b) Create a new Gas pool for Ellenburger production, designated as the Little Lucky-Ellenburger Gas Pool, and described as:

TOWNSHIP 15 SOUTH, RANGE 30 EAST, NMPM
Section 29: NE/4

- (c) Create a new gas pool for Pennsylvanian production, designated as the Los Medanos-Pennsylvanian Gas Pool, and described as:

TOWNSHIP 22 SOUTH, RANGE 30 EAST, NMPM
Section 36: SE/4

- (d) Create a new oil pool for Bone Springs production, designated as the Querecho Plains-Bone Springs Pool, and described as:

TOWNSHIP 18 SOUTH, RANGE 32 EAST, NMPM
Section 27: SW/4

- (e) Create a new gas pool for Atoka production, designated as the Sombrero-Atoka Gas Pool, and described as:

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM
Section 12: W/2
Section 13: NW/4

- (f) Create a new oil pool for Delaware production, designated as the Tecolote Peak-Delaware Pool, and described as:

TOWNSHIP 26 SOUTH, RANGE 28 EAST, NMPM
Section 34: NW/4

- (g) Create a new oil pool for Grayburg production, designated as the West Millman-Grayburg Pool, and described as:

TOWNSHIP 19 SOUTH, RANGE 27 EAST, NMPM
Section 12: SW/4

- (h) Create a new oil pool for San Andres production, designated as the Windmill-San Andres Pool, and described as:

TOWNSHIP 15 SOUTH, RANGE 28 EAST, NMPM
Section 9: SE/4

- (i) Extend the Blinbry Gas Pool to include therein:

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM
Section 33: NW/4

- (j) Extend the Culwin Pool to include therein:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM
Section 36: SE/4

- (k) Extend the Grayburg Jackson Pool to include therein:

TOWNSHIP 17 SOUTH, RANGE 31 EAST, NMPM
Section 10: SE/4

- (l) Extend the High Lonesome Pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM
Section 11: SE/4

- (m) Extend the Langlie Mattix Pool to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 22: NW/4

- (n) Extend the Red Lake Pool to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM
Section 1: NE/4

- (o) Extend the South Vacuum-Devonian Pool to include therein:

TOWNSHIP 18 SOUTH, RANGE 35 EAST, NMPM
Section 26: W/2
Section 27: SE/4

- (p) Extend the Warren-Blinebry Gas Pool to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM
Section 28: NE/4

- (q) Extend the Warren Tubb Gas Pool to include therein:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM
Section 28: NE/4

- (r) Extend the Weir Pool to include therein:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM
Section 15: SE/4

CASE 1590:

Northwestern New Mexico Nomenclature Case calling for an order extending existing pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico.

- (a) Extend the Ballard-Pictured Cliffs Pool to include therein:

TOWNSHIP 25 NORTH, RANGE 6 WEST, NMPM
Section 31: N/2

TOWNSHIP 25 NORTH, RANGE 7 WEST, NMPM
Section 31: N/2

- (b) Extend the South Blanco-Pictured Cliffs Pool to include therein:

TOWNSHIP 27 NORTH, RANGE 5 WEST, NMPM
Section 7: W/2

- (c) Extend the West Kutz-Pictured Cliffs Pool to include therein:

TOWNSHIP 27 NORTH, RANGE 11 WEST, NMPM
Section 20: SW/4

- (d) Extend the Bisti-Lower Gallup Oil Pool to include therein:

TOWNSHIP 24 NORTH, RANGE 10 WEST, NMPM
Section 11: N/2 NE/4

- (e) Extend the Chimney Rock-Gallup Oil Pool to include therein:

TOWNSHIP 31 NORTH, RANGE 17 WEST, NMPM
Section 3: SW/4 SW/4
Section 10: NW/4 & N/2 SW/4

(f) Extend the Horseshoe-Gallup Oil Pool to include therein:

TOWNSHIP 30 NORTH, RANGE 16 WEST, NMPM

Section 2: NW/4 NW/4

Section 14: N/2 N/2

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM

Section 19: S/2 NW/4

Section 34: SE/4 SE/4

Section 35: SW/4 SW/4

(g) Extend the Otero-Gallup Oil Pool to include therein:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM

Section 27: S/2 SW/4

Section 28: SE/4 & SE/4 NE/4

Section 32: NE/4 NE/4

Section 33: N/2

Section 34: N/2

Section 35: SW/4 NW/4 & NW/4 SW/4

(h) Extend the Verde-Gallup Oil Pool to include therein:

TOWNSHIP 31 NORTH, RANGE 14 WEST, NMPM

Section 21: W/2 NW/4

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1691

TRANSCRIPT OF HEARING

JUNE 9, 1959

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
Phone CRipal 3-4697

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
JUNE 9, 1959

IN THE MATTER OF:

CASE 1691 In the matter of the hearing called by the
Oil Conservation Commission on its own mo-
tion to consider amending Rule 107 of the
Commission Rules and Regulations to provide
that in certain instances "slim hole" com-
pletions may be approved without notice and
hearing.

BEFORE:

Mr. A. L. Porter
Mr. Murray Morgan
Gov. John Burroughs

T R A N S C R I P T O F P R O C E E D I N G S

MR. PORTER: We will take up next Case 1691.

MR. PAYNE: Case 1691. In the matter of the hearing
called by the Oil Conservation Commission on its own motion to
consider amending Rule 107 of the Commission Rules and Regulations
to provide that in certain instances "slim hole" completions may
be approved without notice and hearing.

We have one witness, Mr. Nutter.

DANIEL S. NUTTER,
called as a witness, having been first duly sworn, testified as
follows:

DIRECT EXAMINATION

BY MR. PAYNE::

Q Will the witness please state his name and position?

A Daniel S. Nutter, Chief Engineer for the Oil Conservation Commission.

Q Are you familiar with Cases 1573, 1632 and 1633 which were heard on April 15, 1959 by this Commission?

A Yes, sir, I am.

Q You are also aware, are you, that those cases were consolidated for the purpose of taking testimony?

A Yes, sir.

Q And that those cases resulted in the granting of three Orders approving "slim hole" completions?

A Yes, sir.

Q Now, Mr. Nutter, did the testimony brought out in this consolidated case establish that in certain instances "slim hole" completions can be safely and effectively utilized?

A Yes, sir, I believe that the temporary notice, case did establish that.

Q Did the testimony also indicate that in some instances the utilization of the "slim hole" method of completion will result in a greater recovery of oil?

A It will probably result in the greater ultimate recovery of oil by permitting drilling of marginal wells that perhaps otherwise couldn't be drilled.

Q Have any of the three wells that were approved actually

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been drilled today?

A I don't think any of the three has actually been completed and put on production as of today.

Q Do you have any information as to any unusual difficulties which may have been encountered in the drilling of either one or more of those wells?

A No, sir, there have been no unusual difficulties encountered today to date on those wells.

Q What size tubing is considered more or less standard in the "slim hole" method of completion?

A Nominal size two and a half inch tubing, or in the particular case you referred to, two and seven-eighths inch tubing was used as a casing in those wells.

Q Are you recommending here, Mr. Nutter, that in certain instances and under certain conditions that the "slim hole" method of completion can be approved by the district supervisor without administrative approval and without approval after notice and hearing?

A Yes, sir, I am. Rule 107 of the Commission Rules requires that wells should be equipped with casing. Paragraph D of Rule 107 also requires that all flowing oil wells should be tubed, and all gas wells should be tubed, but provides administrative approval for the equipping of gas wells without tubing. I propose today that this Rule be modified in such a manner as to permit -- I'll read the proposed Rule that I have suggested here.

"District personnel should be authorized to approve slim-hole or tubingless completions utilizing 2 7/8 inch tubing or larger without notice and hearing where the following conditions exist:

1. The well is to be completed with a total depth of 5,000 feet or less.
2. The well is not a wildcat (more than one mile from an existing well producing from the same formation to which the well is projected)
3. No known corrosive or pressure problems exist which might make the completion undesirable.
4. The well will not be a dual completion.

Notice of Intention to Drill for wells which do not conform to the above shall be returned to the operator with the notation that approval must be obtained after notice and hearing before the Notice of Intention can be approved."

I suggest that, but I note there is a hole in it already, the provision that wells can be equipped as "slim hole" or tubeless utilizing 2 7/8 inch tubing or larger without notice and hearing. Now, the nominal size two inch tubing is frequently referred to as 2 3/8 inch tubing. The 4.6 pound 2 3/8 has an ID of 1.995. The nominal size 2 1/2 inch tubing, or commonly referred to as 2 7/8 inch tubing is 6.4 pound, and has an ID of 2.441. The next size of tubing as near as I can ascertain, is nominal size three inch. It's got an external diameter of 3 1/2 inch, and has an ID of from

2.992 inch to 3.068 inch, depending on the weight of the tubing. I think this is going to have to be included in a proviso in this Order that those wells cannot be equipped as slim hole using 2 7/8 inch tubing or larger unless at some point tubing would be required in it. I mean, the tubing is the casing string, or casing is the tubing string, whichever you might say. However, you've got to a point where flow is not efficient flow through large size tubing, that's the reason that our Rules require that wells should be tubed. So you get into the very very large sized tubing, and you have in effect casing again.

Q What do you recommend as a maximum?

A I think anything with a tubing in excess of 2 7/8 should have a tubing string inside the tubing.

Q Is that 2 7/8 OD?

A Yes, sir. So you get back to the requirement that you've got the tubing back in the well again. Your tubing becomes the casing, and you need a tubing string.

Q Do you have anything further you would like to offer in this case, Mr. Nutter?

A No, sir, I haven't.

MR. PAYNE: That concludes the direct examination of this witness.

MR. PORTER: Anyone have a question of Mr. Nutter?

CROSS EXAMINATION

BY MR. PORTER:

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Q Mr. Nutter, you propose or recommend a hearing for all applications for notice of intention to drill which do not conform to your recommendations?

A Yes, sir. The proposed Rule as I read it and with the modification that if you go above 2 7/8 inch tubing that you have to have a hearing, either that or run a tubing string. That would become casing then.

MR. PAYNE: Wouldn't it be more simple to write the rule that the tubing had to be 2 7/8 inch OD?

A Yes, and/or smaller; not to get it too small, two or two and a half inch tubing.

MR. PAYNE: Thank you.

MR. PORTER: If there are no further questions of the witness, he may be excused.

(Witness excused)

MR. PORTER: Anyone desire to present testimony in this case? Any statements? Mr. Buell.

MR. BUELL: Guy Buell, representing Pan American Petroleum Corporation. Pan American would like to concur in Mr. Nutter's recommendation made to the Commission here today and actually Pan American feels that when the industry gains more experience in this technique, that probably we could generalize the recommendation even further.

MR. ANDERSON: R. M. Anderson, Sinclair Oil & Gas Company. We concur in the application and feel that "slim hole"

completion should be approved without notice and hearing.

MR. WHITE: If the Commission please, Charles White, representing Sunray Mid-Continent. Sunray Mid-Continent agrees in the recommendations made by Mr. Nutter. They have had success with similar installations in other states, and they believe this is well taken.

MR. KELLAHIN: Jason Kellahin, representing Continental Oil Company. Continental concurs in the recommendations which have been made by Mr. Nutter and feel it would be a forward step in oil development in New Mexico.

MR. BRATTON: Howard Bratton, Humble Oil & Refining Company. Humble Oil & Refining urges the adoption of the administrative procedure for the approval of "slim hole" completion without notice and hearing. The Commission will recall that Humble presented the testimony in the cases that were referred to earlier today. As a result of the Commission's approval of those "slim hole" completions, one well has been completed, is being fraced, and load oil is being recovered. The second well is being currently drilled. As a matter of interest, Humble plans a total of 12 "slim hole" completions in New Mexico during 1959, also the great interest expressed by other operators in this technique makes it clear that a large number of "slim holes" will be drilled in New Mexico in the future. We believe that the new technique will make it possible to drill areas that would otherwise remain undeveloped. We believe the limitations which Mr. Nutter has urged here today

on "slim hole" completions should be carefully evaluated. Actually, we believe that the 5,000 foot limitation need not be adopted. By adopting administrative procedure, the Commission is not abandoning control of "slim hole" operations. I note that Mr. Mutter proposed that those approvals be by District personnel. Possibly in the case of deeper wells, the Commission might discover that the administrative procedure or approval be granted in the office in Santa Fe. However, we believe that experience will be as in other states, that there is no necessity of a limitation of 5,000 feet on the "slim hole" completions. Further, we believe that: One, as to the limitation on wildcats, we would urge that that be considered carefully as to completing a wildcat as a "slim hole" completion. We can see easily the situation where an operator may be drilling in a wildcat area and may be drilling a larger hole, but when he gets down to the pay, it is marginal, and it is not worth while putting five and a half inch casing in there, but he would be willing to put in a "slim hole" completion. For that purpose we believe that the limitation as to wildcat areas should be carefully considered so that an operator who gets in this situation won't have to have notice and hearing before completing as a "slim hole" although he may not have drilled it as a slim hole. We recommend the adoption of liberal administrative procedures for "slim hole" completions.

MR. PORTER: Mr. Bushnell.

MR. BUSHNELL: On behalf of Amerada, Amerada is in

favor of the proposal here of administrative approvals. At the risk of being somewhat repetitious, however, Amerada is hopeful that the experience in the future will be that there can be further liberalization as to that procedure.

MR. PORTER: Anyone else have a statement to make concerning this case? We will take the case under advisement.

The hearing will recess until 2:00 o'clock.

DEARNLEY - MEIER & ASSOCIATES
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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, J. A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 18th day of June, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
Phone CHapel 3-6691

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. 1691
Order No. R-1429

APPLICATION OF THE OIL CONSERVA-
TION COMMISSION ON ITS OWN MOTION
TO CONSIDER AN AMENDMENT OF
RULE 107 TO PROVIDE THAT UNDER
CERTAIN CONDITIONS "SLIM-HOLE"
COMPLETIONS MAY BE APPROVED BY
DISTRICT SUPERVISORS

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on June 9, 1959, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 26th day of June, 1959, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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 evidence presented indicates that under certain conditions the "slim-hole" method of completion is efficient and may result in a greater ultimate recovery of oil.

(3) That Rule 107 of the Commission Rules and Regulations should be amended to provide that if certain conditions hereinafter set forth exist, District Supervisors should be authorized to approve "slim-hole" completions without the necessity for administrative approval or notice and hearing.

(4) That the authority of District Supervisors to approve "slim-hole" completions should be limited to instances where the following conditions exist:

(a) The well is to be completed with a total depth of 5,000 feet or less;

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(b) The well is not a wildcat (It is not more than one mile from an existing well producing from the same common source of supply to which it is projected);

(c) No known corrosive or pressure problems exist which might make the "slim-hole" method of completion undesirable;

(d) The well will not be a dual completion;

(e) The tubing used as a substitute for casing will be either 2-3/8 inch OD or 2-7/8 inch OD.

IT IS THEREFORE ORDERED:

That paragraph (d) of Rule 107 of the Commission Rules and Regulations be and the same is hereby amended to read as hereinafter set forth, and that said Rule 107 be and the same is hereby further amended by the addition of paragraph (e) as hereinafter set forth:

(d) (1) All flowing oil wells equipped with casing larger in size than 2-7/8 inch OD shall be tubed.

(2) All gas wells equipped with casing larger in size than 2-7/8 inch OD shall be tubed.

(3) Tubing shall be set as near the bottom as practical and tubing perforations shall not be more than 250 feet above the top of the pay.

(4) The Secretary-Director of the Commission may, upon proper application, grant administrative exceptions to the provisions of sub-paragraphs (2) and (3) above, without notice and hearing, provided waste will not be caused thereby.

(e) The Commission's District Supervisors or their representatives shall have authority to approve "slim-hole" completions without the necessity for administrative approval or notice and hearing when the following conditions exist:

(1) The well is to be completed with a total depth of 5,000 feet or less.

(2) The well is not a wildcat (It is not more than one mile from an existing well producing from the same common source of supply to which it is projected).

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- (3) No known corrosive or pressure problems exist which might make the "slim-hole" method of completion undesirable,
- (4) The well will not be a dual completion,
- (5) The tubing used as a substitute for casing will be either 2-3/8 inch OD or 2-7/8 inch OD.

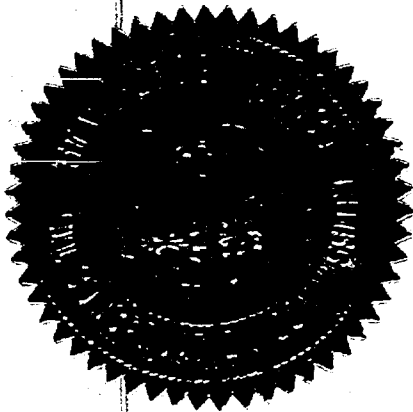
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated,

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN BURROUGHS, Chairman


MURRAY E. MORGAN, Member


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



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