

CASE 6937: R. N. HILLIN FOR AN UNORTHODOX LOCATION AND DUAL COMPLETION, EDDY COUNTY, NEW MEXICO

CASE NO.

6937

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6937
Order No. R-6398

APPLICATION OF R. N. HILLIN FOR AN
UNORTHODOX LOCATION AND DUAL COMPLETION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 25, 1980,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 22nd day of July, 1980, the Division
Director, 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 Division has jurisdiction of this cause and the
subject matter thereof.

(2) That the applicant, R. N. Hillin, seeks authority to
complete his DMV Well No. 4, located in Unit O of Section 34,
Township 19 South, Range 28 East, NMPM, Eddy County, New Mexico,
as a dual completion (conventional) to produce gas from the Wolf-
camp and Morrow formations through tubing and the casing-tubing
annulus, respectively, by means of a cross-over assembly.

(3) That at the hearing the applicant proposed reversal of
the mechanical equipment in said well to permit production of
the Wolfcamp zone through the casing-tubing annulus and the
Morrow zone through tubing, eliminating the cross-over assembly.

(4) That because of the large volume of liquids produced
from the Wolfcamp zone and the lack of evidence to show that said
zone could be efficiently produced through the annulus this
reversal should be denied and the application be considered as
advertised.

-2-

Case No. 6937

Order No. R-6398

(5) That the mechanics of the proposed dual completion as initially requested are feasible and in accord with good conservation practices and should be approved.

(6) That the applicant further seeks approval of the unorthodox location of said well in the Wolfcamp and Pennsylvanian formations at a point 800 feet from the South line and 2000 feet from the East line of said Section 34.

(7) That the E/2 of said Section 34 is to be dedicated to the well.

(8) That a well at said unorthodox location will better enable applicant to produce the gas underlying the proration unit.

(9) That no offset operator objected to the proposed unorthodox location.

(10) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, R. N. Hillin, is hereby authorized to complete his DMV Well No. 4, located in Unit O of Section 34, Township 19 South, Range 28 East, NMPM, Eddy County, New Mexico, as a dual completion (conventional) to produce gas from the Wolfcamp formation through tubing and gas from the Morrow formation through the casing-tubing annulus by means of a cross-over assembly located immediately above a packer set at approximately 10,955 feet.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Shut In Pressure Test Period for gas wells in Southeastern New Mexico.

IT IS FURTHER ORDERED:

(1) That an unorthodox gas well location for the Wolfcamp and Pennsylvanian formations is hereby approved for said DMV Well No. 4 at a point 800 feet from the South line and 2000 feet from

-3-

Case No. 6937

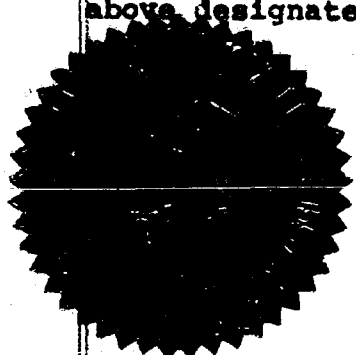
Order No. R-6398

the East line of Section 34, Township 19 South, Range 28 East,
NMPM, Eddy County, New Mexico.

(2) That the E/2 of said Section 34 shall be dedicated to
the above-described well.

(3) That jurisdiction of this cause is retained for the
entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

Ed/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
25 June 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of R. N. Hillin for an
unorthodox location and a dual com-
pletion, Eddy County, New Mexico.

CASE
6937

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

W. Thomas Kellahin, Esq.
KELLAHIN & KELLAHIN
500 Don Gaspar
Santa Fe, New Mexico 87501

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I N D E X

OSCAR C. PERSON

Direct Examination by Mr. Kellahin 4

Cross Examination by Mr. Stamets 14

R. N. HILLIN

Direct Examination by Mr. Kellahin 16

E X H I B I T S

Applicant Exhibit One, Structure Map 5

Applicant Exhibit Two, Cross Section Withdrawn

Applicant Exhibit Three, C-107 9

Applicant Exhibit Four, Schematic 10

Applicant Exhibit Five, Report 12

Applicant Exhibit Six, Report 12

Applicant Exhibit Seven, Plat 13

Applicant Exhibit Eight, Document 13

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 MR. STAMETS: Call next Case 6937.

2 In the matter of the application of R. N. Hillin for an un-
3 orthodox location and dual completion, Eddy County, New
4 Mexico.

5 MR. KELLAHIN: If the Examiner please,
6 I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf
7 of the applicant, and I have one witness to be sworn.

8
9 (Witness sworn.)

10
11 MR. KELLAHIN: If the Examiner please,
12 I'd like to give you a little background on the application
13 so that you'll better understand what we're seeking to ask
14 you to approve.

15 Back on September 19th of '79 the Com-
16 mission entered Order R-6106, and that approved the unortho-
17 dox location and the infill drilling of the subject Morrow
18 well. It was completed as a Morrow well.

19 Subsequent to completion it was discovered
20 that there is a significant potential for Wolfcamp production.
21 We now seek approval to produce the Wolfcamp at the same un-
22 orthodox location and also seek approval of a dual completion
23 for both zones.

24 Subsequent to filing the application it
25 has become apparent to our experts that the Wolfcamp pro-

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 435-7409

1 duction itself is eligible for an NGPA determination under
2 Section 102 for a new onshore reservoir.

3 And with your permission, we would like
4 to present testimony with regards to what we believe to be
5 significant evidence of a new onshore reservoir and then to
6 allow you to re-advertise this case to include that as part
7 of this case and subsequently to enter an order approving all
8 three of those items, the dual completion, the unorthodox
9 location for the Wolfcamp, and then the onshore reservoir
10 for the Wolfcamp.

11 If you prefer, we can leave this case
12 alone and file a new case, but it would make another trip
13 for us.

14 MR. STAMETS: Off the record, Sally.

15
16 (There followed a discussion
17 off the record.)

18
19 OSCAR C. PERSON
20 being called as a witness and having been duly sworn upon
21 his oath, testified as follows, to-wit:

22
23 DIRECT EXAMINATION

24 BY MR. KELLAHIN:

25 Q Would you please state your name, sir?

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 A Oscar C. Person. I'm a petroleum engineering
2 consultant.

3 Q Mr. Person, have you previously testified
4 before the Division as a petroleum engineer?

5 A Yes.

6 Q Have your qualifications been accepted
7 and made a matter of record?

8 A Yes.

9 Q Have you previously testified before the
10 Commission in the Case 6579 from which Order R-6106 was en-
11 tered approving the unorthodox location for the Morrow portion
12 of the well?

13 A Yes.

14 Q And subsequent to that hearing have you
15 provided or supplied additional information and made addi-
16 tional study of the subject well?

17 A Yes, sir.

18 MR. KELLAHIN: We tender Mr. Person as an
19 expert petroleum engineer.

20 MR. STAMETS: Mr. Person is considered
21 as qualified.

22 Q Would you refer to what we've marked as
23 Exhibit Number One, and would you locate that well we're
24 talking about?

25 A Yes. This is a combination structural

1 map and an Isopach map of the Wolfcamp formation based on
2 the wells that have -- around this particular location, that
3 have penetrated the Wolfcamp.

4 The particular location we're speaking of
5 is the well in the Unit 0 in Section 34.

6 Q And what is that well name?

7 A That well name is the DWU Federal No. 4.

8 Q This exhibit also shows superimposed a
9 line of cross section.

10 A Yes.

11 Q A' is the subject well?

12 A Correct.

13 Q Describe how that well is completed at
14 this point.

15 A It is dually completed in the Morrow
16 formation and the Wolfcamp.

17 The Morrow is currently being produced.

18 Q You're withholding Wolfcamp production
19 pending approval of the dual completion?

20 A Yes.

21 Q Would you identify for us what you believe
22 to be the horizontal extent of the Wolfcamp horizon for which
23 you seek a new onshore reservoir determination pursuant to
24 Section 102 of the National Gas Policy Act?

25 A Well, as we have shown here, we have two

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 small lenses in the Wolfcamp. The one to the east has had
2 two wells producing from it. The one at Location N in Sec-
3 tion 35 and what would the other one be, K, the one to the
4 north.

5 The one to the north is plugged and aban-
6 doned; the one to the south is currently producing, I think,
7 somewhere in the neighborhood of 2 or 300 Mcf a day from the
8 Wolfcamp.

9 Those are the only producing wells -- the
10 only wells producing from the Wolfcamp.

11 Now the other wells that have penetrated
12 the Wolfcamp on which we're basing separation here, is the
13 well immediately to the south in Section 2, had no Wolfcamp
14 porosity.

15 Q All right, let's start with that one.
16 The well in Section 2 is in Unit C? Is this the J. R. Stevens
17 Well?

18 A Yes. That's the R. N. Hillin JCW State
19 Com No. 1. I'm sorry we did not get that information on here
20 to properly identify it.

21 Q Mr. Person, I haven't been able to locate
22 your well. What section are we in?

23 A In Section 2.

24 Q All right.

25 A Unit C, and it's got written J. R. Stevens

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 under it but I'm sorry, that is not the name of the well.

2 Q All right. What is that well name?

3 A It's the R. N. Hillin JCW State Com No. 1
4 Well.

5 Q And when was that well spudded?

6 A It was spudded in -- on February the 12th,
7 1973.

8 Q And was it drilled to --

9 MR. STAMETS: Let me stop here a second.
10 Do you have cross sections that show all of the wells that
11 penetrated the Wolfcamp in this area?

12 A No, not all of the wells, no.

13 MR. STAMETS: Okay. It may be a little
14 tough for an NGPA application, but go ahead.

15 A Okay.

16 Q This well in Unit C of Section 2, did it
17 penetrate the Wolfcamp formation?

18 A Yes.

19 Q Have you examined the log on that well?

20 A Yes. And it has no porosity in the Wolf-
21 camp zone.

22 Q And in preparing your Isopach of the
23 Wolfcamp formation in this area, that's why you assigned
24 zero --

25 A Yes.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 Q -- to that well?

2 A Yes.

3 MR. STAMETS: Let's hold on here a second.

4 MR. KELLAHIN: If the Examiner please, it

5 appears from our Exhibit Number One and Exhibit Number Two

6 that we have not brought with us today all the logs and cross

7 sections with regards to that portion of the application which

8 pertains to the NGPA determination.

9 We would request that you disregard that

10 testimony. We would like to proceed directly with the case

11 as advertised and we will file a new case for the NGPA deter-

12 mination.

13 MR. STAMETS: Very good.

14 Q Mr. Person, let me ask you with regards

15 to the Wolfcamp production in this well, what is the acreage

16 dedication to the Wolfcamp?

17 A It would be the same as for the Morrow,

18 the east half of Section 34.

19 Q And that currently is the approved pro-

20 duction unit for the Morrow production?

21 A Yes.

22 Q All right.

23 MR. KELLAHIN: We would withdraw Exhibit

24 Number Two, Mr. Examiner, and proceed then with Exhibit Number

25 Three, which is the C-107.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 Q Would you identify that exhibit for us,
2 Mr. Person?

3 A Yes. That is the application for multiple
4 completion, standard New Mexico Form 107.

5 Q All right, sir, if you'll go to Exhibit
6 Number Four and identify your schematic.

7 A That's a schematic of the wellbore com-
8 pletion.

9 Q Would you explain again for the Examiner
10 how you propose to dually complete the well?

11 A Yes. We have -- we're going to produce
12 the Morrow perforations through the tubing and we're going to
13 produce the Wolfcamp perforations up the casing-tubing annulus.
14 We have a packer set between the two zones.

15 Q All right, sir. Have you conducted any
16 pressure tests of the Wolfcamp and the Morrow zones?

17 A No.

18 Q All right, do you have -- do you have any
19 kind of production tests on the Wolfcamp formation?

20 A Well, we have a short production test; no,
21 we have not run the 4-point test on it because we want to
22 wait until -- to produce into the flow line before we run
23 the 4-points. So we don't -- that's why we don't have the
24 pressures on the -- on the Wolfcamp.

25 Q Do you have any pressure information on

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 the Morrow formation?

2 A. Yes, but I'm sorry, I don't know what that
3 pressure was. May we ask Mr. Hillin?

4 Q. Yes, sir.

5 A. May I ask Mr. Hillin?

6 MR. PERSON: Do you remember what the pressure
7 was on the Morrow?

8 MR. HILLIN: No, we haven't done the
9 drill stem test so we haven't got the bottom hole pressures
10 yet; we haven't 4-pointed.

11 MR. PERSON: No, I'm talking about the
12 Morrow.

13 MR. HILLIN: That's right. We didn't test
14 the Morrow. We don't have any tests on the Morrow.

15 MR. PERSON: You don't have the pressure
16 on the Morrow yet?

17 MR. HILLIN: No, we haven't tested. All
18 we have is surface pressure tests.

19 Q. Mr. Person, prior to production as a dual
20 completed well, would you be willing to provide the District
21 Office, with a copy to the Santa Fe office of the Commission,
22 your production tests on the Wolfcamp and the Morrow forma-
23 tion and your pressure information?

24 A. Certainly. Certainly.

25 Q. So that prior to actual production you

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 will provide that?

2 A. We will have the pressures on both zones.

3 Q. All right, sir, have you at this time
4 conducted any type of packer leakage test?

5 A. No.

6 Q. All right. With regard to that test, will
7 you have such test run and provide it to the District Office,
8 as well as the Santa Fe office?

9 A. Yes.

10 Q. Would you identify for us Exhibit Number
11 Five and explain what that is?

12 A. Packer setting report. Yes, this is the
13 report of the setting of a packer between the two zones.

14 Q. And Exhibit Number Six?

15 A. I'm sorry, I think we've got those re-
16 versed, haven't we?

17 This is the setting of the on and off
18 sleeve and then the other one is the setting of a packer it-
19 self.

20 Q. Okay. In your opinion, Mr. Person, are
21 you adequately satisfied that the packer is set in such a
22 manner to adequately insure the separation of the two forma-
23 tions?

24 A. Yes, because we -- we know that we don't
25 from casing pressure and tubing pressure we know that we don't

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 have any communication.

2 Q And would you identify Exhibit Number
3 Seven for us?

4 A That's the location -- acreage dedication
5 plat for this well.

6 Q And Exhibit Number Eight.

7 A This is a request for an allowable for
8 the Morrow zone.

9 Q Did you encounter Wolfcamp production in
10 the -- your Morrow well to the north of this location?

11 A No, it was -- it was very thin sand sec-
12 tion there but it's not -- not commercially productive.

13 Q So that well to the north only produces
14 from the Morrow?

15 A It's plugged and -- well, it's temporarily
16 abandoned in the Morrow. It's not producing from the Morrow.
17 It's not producing from anything.

18 Q Are you aware of any other Wolfcamp-Morrow
19 dual wells in the area?

20 A No.

21 Q Were Exhibits, with exclusion of Exhibit
22 Number Two which we have withdrawn, Mr. Person, were Exhibits
23 One through Eight prepared by you or compiled under your
24 direction?

25 A No, they were not. They were prepared by

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 Mr. Hillin.

2 Q Have you reviewed the information contained
3 on those exhibits and to your own knowledge, information,
4 and belief, are they true and accurate?

5 A Yes.

6 MR. KELLAHIN: We would move the intro-
7 duction of Exhibits One, Three through Eight.

8 MR. STAMETS: The submitted exhibits are
9 admitted.

10 Q Mr. Person, in your opinion will approval
11 of the unorthodox location and the dual completion of this
12 well be in the best interests of conservation, the prevention
13 of waste, and the protection of correlative rights?

14 A Yes.

15 MR. KELLAHIN: That concludes our exam-
16 ination.

17 CROSS EXAMINATION

18 BY MR. STAMETS:

19 Q Mr. Person, from our recollection, it
20 seems as though the old Winchester-Wolfcamp lease initially
21 made quite a bit of oil.

22 A Yes. This -- this well will make quite
23 a bit of condensate.

24 Q And you propose to flow that up the
25

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7499

1 annulus?

2 A. Uh-huh, because it's -- yeah.

3 Q. How can that be done efficiently?

4 A. Because we have higher pressure, some
5 higher -- a little higher pressure on the Wolfcamp than we
6 do on the -- will have on the Morrow, probably.

7 Q. How much liquids do you have in this
8 well?

9 A. Well, as I said, we have not run an ac-
10 curate test on it, but it indicated from a million and a
11 half a day rate, oil rate, I think we made about 200 -- be-
12 tween 2 and 300 barrels of condensate.

13 MR. HILLIN: Sir, may I testify to some
14 of that? I could help quite a bit since I did --

15 A. He did the testing.

16 MR. STAMETS: Well, if you'd like to
17 swear Mr. Hillin in --

18 MR. KELLAHIN: We'll call him in, yes, sir.
19 Perhaps we should finish with this witness first.

20 MR. STAMETS: Are there any other ques-
21 tions of this witness? He may be excused.

22
23 (Mr. Hillin sworn.)
24
25

R. N. HILLIN

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Hillin, would you please state your name and occupation?

A R. N. Hillin. I'm a drilling contractor and oil operator.

Q And you are the applicant in this case?

A Yes, sir.

Q To what extent have you participated in the drilling and completion of this well?

A Well, I own a large interest in the well and I'm the actual operator and I have actually done the work on the ground.

MR. KELLAHIN: If the Examiner please, we tender Mr. Hillin as an expert witness.

MR. STAMETS: Mr. Hillin is considered qualified.

Q Mr. Hillin, I'd like to direct your attention to the questions concerning the potential for either of these zones to make any liquids and how you propose to adequately insure that the well is effectively produced as

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 a dual completed well.

2 A Well, we have -- I have flowed the well,
3 tested the Wolfcamp and the Morrow both separately and inde-
4 pendently of each other in the initial phase after the treating,
5 flowed them back and flared the well, flared the Wolfcamp
6 and tested it through the separator and into the tanks for
7 six hours while it was cleaning up and after it cleaned up.
8 And flowing at the rate of million and a half a day we aver-
9 aged approximately 21 barrels an hour of distillate.

10 Q Excuse me, a million and a half?

11 A Cubic feet of gas and --

12 Q A day?

13 A Per day.

14 Q All right.

15 A Rate; had 21 barrels per hour average of
16 distillate.

17 Q And this is on the Wolfcamp?

18 A That was on the Wolfcamp, yes, and that
19 was flowing through the annulus.

20 We have a -- the well is completed with
21 a Model D packer -- not a Model D, but it's a latch set packer
22 with an on and off tool set between the Morrow and the Wolf-
23 camp, and the Morrow was plugged off with a plugging tool,
24 and the Wolfcamp was completed, and then went back with the
25 on and off tool and latched onto the -- reset it and tested

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 the tubing to 5000 pounds and no pressure on the annulus at
2 all. Tested that after we latched onto the tool and we opened
3 the sliding sleeve and swabbed the Morrow in and closed the
4 sleeve and put the Morrow back through the annulus -- and put
5 the Morrow through the tubing and the Wolfcamp through the
6 annulus, and the Wolfcamp is flowing through the annulus and
7 the Morrow through the tubing.

8 MR. STAMETS: Well, Mr. Hillin, the Divi-
9 sion has recognized for many, many, many years that the pro-
10 duction of large volumes of liquids through a large casing
11 or a large annular space can be inefficient and can cause
12 waste of reservoir energy and nonproduction of reservoir
13 fluids, and without very detailed engineering demonstrating
14 that this well can be produced efficiently, the Wolfcamp can
15 be produced efficiently through the casing-tubing annulus,
16 I have grave doubts that you will get the dual completion that
17 you seek.

18 A. Well, we have -- I really don't know how
19 to answer your question or what to propose in a situation.
20 We could -- the well certainly will produce properly at this
21 point. I'm sure that it would tend to load up as pressure
22 dropped down the line, and -- but it's practically a, you
23 know, its gas/oil ratio is pretty low right now and it's
24 flowing on about 2300 pounds pressure.

25 The shut-in -- the shut-in bottom hole

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 pressure is 4426; was 44 on the drill stem test; was 4429,
2 4426 final after six hours flowing, and the well, as I say,
3 surface pressures, flowing pressure is around 2300, between
4 22 and 2300 pounds on the annulus and it -- and on the test
5 so far it doesn't -- it appears to me that it would be ade-
6 quate.

7 MR. STAMETS: At this point I would feel
8 fairly confident in saying that you won't receive an order
9 granting you what you're requesting in this case.

10 I could also suggest that you might want
11 to continue this case until the other one is advertised to
12 give you an opportunity to review this matter and perhaps
13 you would bring in the engineering testimony that I feel
14 would be needed, or to review the situation and see if there
15 is some other manner that the well could be completed with
16 dual strings of tubing, or a crossover assembly --

17 A Well, we could run the crossover assembly
18 and the Wolfcamp could cross over from the annulus to the
19 tubing and bring the Wolfcamp up the tubing and the Morrow
20 up the annulus. The Morrow is producing at approximately
21 a million a day and about 7 barrels of distillate per day at
22 the present time. It's been on production now for a few
23 weeks and that's the -- that's the production rate of the
24 Morrow at this time.

25 Q Mr. Hillin, may I ask you, the advertise-

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 ment and the application in this case indicated the Wolfcamp
2 in fact would be brought up the tubing.

3 What is the expense involved in placing
4 a crossover assembly in the well so that -- or some other
5 mechanical completion so that the Wolfcamp could be brought
6 up the tubing?

7 A. It would be a fairly simple matter. It
8 would cost -- oh, it would just be a matter of pulling the
9 unit and putting a plug in the Morrow and plugging it off
10 and then take the on and off tool out and remove the tubing
11 and going back with a crossover assembly, which we had it
12 designed to put it -- well, that's the reason for the foul-up
13 on this thing, we had the design -- the design was drawn up
14 that way and that's the way I designed it to begin with, but
15 then Otis was doing the work and the day they came out to run
16 the crossover assembly and had it -- to hook it up to the
17 on and off tool, they didn't have the right type packer and
18 assembly to go in there, and they had designed something them-
19 selves and tried to make it work and it wouldn't work. So
20 we came out and went back to the sliding sleeve and completed
21 it that way.

22 Because at that time the equipment from
23 Otis was not available to do it the way -- with what we
24 needed, so we went ahead and completed the well and put the
25 Morrow through the annulus -- Morrow through the tubing and

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 the Wolfcamp through the annulus.

2 But we had originally designed and I had
3 designed it for the crossover assembly of the Morrow-Wolfcamp,
4 to bring the Wolfcamp through the tubing and crossover at
5 that point.

6 And it would be a matter of going back
7 and moving the tubing and putting it in that manner at this
8 time, if we can get the equipment to do it.

9 MR. STAMETS: Well, under those conditions
10 I don't think it would be unreasonable to go ahead and take
11 the case under advisement at this time.

12 MR. KELLAHIN: I would appreciate that
13 with the stipulation being that if the order is entered it
14 would provide for the typical dual completion where the Wolf-
15 camp would come up the tubing.

16 MR. STAMETS: Are there any other ques-
17 tions of Mr. Hillin? He may be excused.

18 Anything further in this case?

19 MR. KELLAHIN: No, sir.

20 MR. STAMETS: The case will be taken
21 under advisement.

22

23

24

25

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6937, heard by me on 6-25, 1980.
Richard H. Stamm, Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
25 June 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of R. N. Hillin for an
unorthodox location and a dual com-
pletion, Eddy County, New Mexico.

CASE
6937

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

W. Thomas Kellahin, Esq.
KELLAHIN & KELLAHIN
500 Don Gaspar
Santa Fe, New Mexico 87501

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

INDEX

OSCAR C. PERSON

Direct Examination by Mr. Kellahin	4
Cross Examination by Mr. Stamets	14

R. N. HILLIN

Direct Examination by Mr. Kellahin	16
------------------------------------	----

EXHIBITS

Applicant Exhibit One, Structure Map	5
Applicant Exhibit Two, Cross Section	Withdrawn
Applicant Exhibit Three, C-107	9
Applicant Exhibit Four, Schematic	10
Applicant Exhibit Five, Report	12
Applicant Exhibit Six, Report	12
Applicant Exhibit Seven, Plat	13
Applicant Exhibit Eight, Document	13

SALLY W. BOYD, C.S.R.

RL 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7499

1 MR. STAMETS: Call next Case 6937.

2 In the matter of the application of R. N. Hillin for an un-
3 orthodox location and dual completion, Eddy County, New
4 Mexico.

5 MR. KELLAHIN: If the Examiner please,
6 I'm Tom Kellahin of Santa Fe, New Mexico, appearing on behalf
7 of the applicant, and I have one witness to be sworn.

8
9 (Witness sworn.)

10
11 MR. KELLAHIN: If the Examiner please,
12 I'd like to give you a little background on the application
13 so that you'll better understand what we're seeking to ask
14 you to approve.

15 Back on September 19th of '79 the Com-
16 mission entered Order R-6106, and that approved the unortho-
17 dox location and the infill drilling of the subject Morrow
18 well. It was completed as a Morrow well.

19 Subsequent to completion it was discovered
20 that there is a significant potential for Wolfcamp production.
21 We now seek approval to produce the Wolfcamp at the same un-
22 orthodox location and also seek approval of a dual completion
23 for both zones.

24 Subsequent to filing the application it
25 has become apparent to our experts that the Wolfcamp pro-

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 duction itself is eligible for an NGPA determination under
2 Section 102 for a new onshore reservoir.

3 And with your permission, we would like
4 to present testimony with regards to what we believe to be
5 significant evidence of a new onshore reservoir and then to
6 allow you to re-advertise this case to include that as part
7 of this case and subsequently to enter an order approving all
8 three of those items, the dual completion, the unorthodox
9 location for the Wolfcamp, and then the onshore reservoir
10 for the Wolfcamp.

11 If you prefer, we can leave this case
12 alone and file a new case, but it would make another trip
13 for us.

14 MR STAMETS: Off the record, Sally.

15
16 (There followed a discussion
17 off the record.)
18

19 OSCAR C. PERSON
20 being called as a witness and having been duly sworn upon
21 his oath, testified as follows, to-wit:
22

23 DIRECT EXAMINATION

24 BY MR. KELLAHIN:

25 Q

Would you please state your name, sir?

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 A. Oscar C. Person. I'm a petroleum engineering
2 consultant.
3 Q. Mr. Person, have you previously testified
4 before the Division as a petroleum engineer?
5 A. Yes.
6 Q. Have your qualifications been accepted
7 and made a matter of record?
8 A. Yes.
9 Q. Have you previously testified before the
10 Commission in the Case 6579 from which Order R-6106 was en-
11 tered approving the unorthodox location for the Morrow portion
12 of the well?
13 A. Yes.
14 Q. And subsequent to that hearing have you
15 provided or supplied additional information and made addi-
16 tional study of the subject well?
17 A. Yes, sir.
18 MR. KELLAHIN: We tender Mr. Person as an
19 expert petroleum engineer.
20 MR. STAMETS: Mr. Person is considered
21 as qualified.
22 Q. Would you refer to what we've marked as
23 Exhibit Number One, and would you locate that well we're
24 talking about?
25 A. Yes. This is a combination structural

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7409

- 1 map and an Isopach map of the Wolfcamp formation based on
- 2 the wells that have --- around this particular location, that
- 3 have penetrated the Wolfcamp.
- 4 The particular location we're speaking of
- 5 is the well in the Unit O in Section 34.
- 6 Q And what is that well name?
- 7 A That well name is the DWU Federal No. 4.
- 8 Q This exhibit also shows superimposed a
- 9 line of cross section.
- 10 A Yes.
- 11 Q A' is the subject well?
- 12 A Correct.
- 13 Q Describe how that well is completed at
- 14 this point.
- 15 A It is dually completed in the Morrow
- 16 formation and the Wolfcamp.
- 17 The Morrow is currently being produced.
- 18 Q You're withholding Wolfcamp production
- 19 pending approval of the dual completion?
- 20 A Yes.
- 21 Q Would you identify for us what you believe
- 22 to be the horizontal extent of the Wolfcamp horizon for which
- 23 you seek a new onshore reservoir determination pursuant to
- 24 Section 102 of the National Gas Policy Act?
- 25 A Well, as we have shown here, we have two

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 small lenses in the Wolfcamp. The one to the east has had
2 two wells producing from it. The one at Location N in Sec-
3 tion 35 and what would the other one be, K, the one to the
4 north.

5 The one to the north is plugged and aban-
6 doned; the one to the south is currently producing, I think,
7 somewhere in the neighborhood of 2 or 300 Mcf a day from the
8 Wolfcamp.

9 Those are the only producing wells -- the
10 only wells producing from the Wolfcamp.

11 Now the other wells that have penetrated
12 the Wolfcamp on which we're basing separation here, is the
13 well immediately to the south in Section 2, had no Wolfcamp
14 porosity.

15 Q All right, let's start with that one.
16 The well in Section 2 is in Unit C? Is this the J. R. Stevens
17 Well?

18 A Yes. That's the R. N. Hillin JCW State
19 Com No. 1. I'm sorry we did not get that information on here
20 to properly identify it.

21 Q Mr. Person, I haven't been able to locate
22 your well. What section are we in?

23 A In Section 2.

24 Q All right.

25 A Unit C, and it's got written J. R. Stevens

SALLY W. BOYD, C.S.R.
 Rt. 1 Box 193-B
 Santa Fe, New Mexico 87501
 Phone (505) 455-7409

1 under it but I'm sorry, that is not the name of the well.
 2 Q All right. What is that well name?
 3 A It's the R. N. Hillin JCW State Com No. 1
 4 Well.
 5 Q And when was that well spudded?
 6 A It was spudded in --- on February the 12th,
 7 1973.
 8 Q And was it drilled to ---
 9 MR. STAMETS: Let me stop here a second.
 10 Do you have cross sections that show all of the wells that
 11 penetrated the Wolfcamp in this area?
 12 A No, not all of the wells, no.
 13 MR. STAMETS: Okay. It may be a little
 14 tough for an NGPA application, but go ahead.
 15 A Okay.
 16 Q This well in Unit C of Section 2, did it
 17 penetrate the Wolfcamp formation?
 18 A Yes.
 19 Q Have you examined the log on that well?
 20 A Yes. And it has no porosity in the Wolf-
 21 camp zone.
 22 Q And in preparing your Isopach of the
 23 Wolfcamp formation in this area, that's why you assigned
 24 zero --
 25 A Yes.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 Q -- to that well?

2 A Yes.

3 MR. STAMETS: Let's hold on here a second.

4 MR. KELLAHIN: If the Examiner please, it
5 appears from our Exhibit Number One and Exhibit Number Two
6 that we have not brought with us today all the logs and cross
7 sections with regards to that portion of the application which
8 pertains to the NGPA determination.

9 We would request that you disregard that
10 testimony. We would like to proceed directly with the case
11 as advertised and we will file a new case for the NGPA deter-
12 mination.

13 MR. STAMETS: Very good.

14 Q Mr. Person, let me ask you with regards
15 to the Wolfcamp production in this well, what is the acreage
16 dedication to the Wolfcamp?

17 A It would be the same as for the Morrow,
18 the east half of Section 34.

19 Q And that currently is the approved pro-
20 duction unit for the Morrow production?

21 A Yes.

22 Q All right.

23 MR. KELLAHIN: We would withdraw Exhibit
24 Number Two, Mr. Examiner, and proceed then with Exhibit Number
25 Three, which is the C-107.

1 Q Would you identify that exhibit for us,
2 Mr. Porson?

3 A Yes. That is the application for multiple
4 completion, standard New Mexico Form 107.

5 Q All right, sir, if you'll go to Exhibit
6 Number Four and identify your schematic.

7 A That's a schematic of the wellbore com-
8 pletion.

9 Q Would you explain again for the Examiner
10 how you propose to dually complete the well?

11 A Yes. We have -- we're going to produce
12 the Morrow perforations through the tubing and we're going to
13 produce the Wolfcamp perforations up the casing-tubing annulus.
14 We have a packer set between the two zones.

15 Q All right, sir. Have you conducted any
16 pressure tests of the Wolfcamp and the Morrow zones?

17 A No.

18 Q All right, do you have -- do you have any
19 kind of production tests on the Wolfcamp formation?

20 A Well, we have a short production test; no,
21 we have not run the 4-point test on it because we want to
22 wait until -- to produce into the flow line before we run
23 the 4-points. So we don't -- that's why we don't have the
24 pressures on the -- on the Wolfcamp.

25 Q Do you have any pressure information on

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7409

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 435-7409

1 the Morrow formation?

2 A Yes, but I'm sorry, I don't know what that
3 pressure was. May we ask Mr. Hillin?

4 Q Yes, sir.

5 A May I ask Mr. Hillin?

6 MR. PERSON: Do you remember what the pressure
7 was on the Morrow?

8 MR. HILLIN: No, we haven't done the
9 drill stem test so we haven't got the bottom hole pressures
10 yet; we haven't 4-pointed.

11 MR. PERSON: No, I'm talking about the
12 Morrow.

13 MR. HILLIN: That's right. We didn't test
14 the Morrow. We don't have any tests on the Morrow.

15 MR. PERSON: You don't have the pressure
16 on the Morrow yet?

17 MR. HILLIN: No, we haven't tested. All
18 we have is surface pressure tests.

19 Q Mr. Person, prior to production as a dual
20 completed well, would you be willing to provide the District
21 Office, with a copy to the Santa Fe office of the Commission,
22 your production tests on the Wolfcamp and the Morrow forma-
23 tion and your pressure information?

24 A Certainly. Certainly.

25 Q So that prior to actual production you

1 will provide that?

2 A We will have the pressures on both zones.

3 Q All right, sir, have you at this time
4 conducted any type of packer leakage test?

5 A No.

6 Q All right. With regard to that test, will
7 you have such test run and provide it to the District Office,
8 as well as the Santa Fe office?

9 A Yes.

10 Q Would you identify for us Exhibit Number
11 Five and explain what that is?

12 A Packer setting report. Yes, this is the
13 report of the setting of a packer between the two zones.

14 Q And Exhibit Number Six?

15 A I'm sorry, I think we've got those re-
16 versed, haven't we?

17 This is the setting of the on and off
18 sleeve and then the other one is the setting of a packer it-
19 self.

20 Q Okay. In your opinion, Mr. Person, are
21 you adequately satisfied that the packer is set in such a
22 manner to adequately insure the separation of the two forma-
23 tions?

24 A Yes, because we -- we know that we don't--
25 from casing pressure and tubing pressure we know that we don't

SALLY W. BOYD, C.S.F.

Rt. 1 Box 193-B

Santa Fe, New Mexico 87501

Phone (505) 455-7409

1 have any communication.

2 Q And would you identify Exhibit Number
3 Seven for us?

4 A That's the location -- acreage dedication
5 plat for this well.

6 Q And Exhibit Number Eight.

7 A This is a request for an allowable for
8 the Morrow zone.

9 Q Did you encounter Wolfcamp production in
10 the -- your Morrow well to the north of this location?

11 A No, it was -- it was very thin sand sec-
12 tion there but it's not -- not commercially productive.

13 Q So that well to the north only produces
14 from the Morrow?

15 A It's plugged and -- well, it's temporarily
16 abandoned in the Morrow. It's not producing from the Morrow.
17 It's not producing from anything.

18 Q Are you aware of any other Wolfcamp-Morrow
19 dual wells in the area?

20 A No.

21 Q Were Exhibits, with exclusion of Exhibit
22 Number Two which we have withdrawn, Mr. Person, were Exhibits
23 One through Eight prepared by you or compiled under your
24 direction?

25 A No, they were not. They were prepared by

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 Mr. Hillin.

2 Q Have you reviewed the information contained
3 on those exhibits and to your own knowledge, information,
4 and belief, are they true and accurate?

5 A Yes.

6 MR. KELLAHIN: We would move the intro-
7 duction of Exhibits One, Three through Eight.

8 MR. STAMETS: The submitted exhibits are
9 admitted.

10 Q Mr. Person, in your opinion will approval
11 of the unorthodox location and the dual completion of this
12 well be in the best interests of conservation, the prevention
13 of waste, and the protection of correlative rights?

14 A Yes.

15 MR. KELLAHIN: That concludes our exam-
16 ination.

17 CROSS EXAMINATION

18 BY MR. STAMETS:

19 Q Mr. Person, from our recollection, it
20 seems as though the old Winchester-Wolfcamp lease initially
21 made quite a bit of oil.
22

23 A Yes. This -- this well will make quite
24 a bit of condensate.

25 Q And you propose to flow that up the

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 annulus?

2 A Uh-huh, because it's -- yeah.

3 Q How can that be done efficiently?

4 A Because we have higher pressure, some
5 higher -- a little higher pressure on the Wolfcamp than we
6 do on the -- will have on the Morrow, probably.

7 Q How much liquids do you have in this
8 well?

9 A Well, as I said, we have not run an ac-
10 curate test on it, but it indicated from a million and a
11 half a day rate, oil rate, I think we made about 200 -- be-
12 tween 2 and 300 barrels of condensate.

13 MR. HILLIN: Sir, may I testify to some
14 of that? I could help quite a bit since I did --

15 A He did the testing.

16 MR. STAMETS: Well, if you'd like to
17 swear Mr. Hillin in --

18 MR. KELLAHIN: We'll call him in, yes, sir.
19 Perhaps we should finish with this witness first.

20 MR. STAMETS: Are there any other ques-
21 tions of this witness? He may be excused.

22
23 (Mr. Hillin sworn.)
24
25

R. N. HILLIN

being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Hillin, would you please state your name and occupation?

A R. N. Hillin. I'm a drilling contractor and oil operator.

Q And you are the applicant in this case?

A Yes, sir.

Q To what extent have you participated in the drilling and completion of this well?

A Well, I own a large interest in the well and I'm the actual operator and I have actually done the work on the ground.

MR. KELLAHIN: If the Examiner please, we tender Mr. Hillin as an expert witness.

MR. STAMETS: Mr. Hillin is considered qualified.

Q Mr. Hillin, I'd like to direct your attention to the questions concerning the potential for either of these zones to make any liquids and how you propose to adequately insure that the well is effectively produced as

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 a dual completed well.

2 A. Well, we have -- I have flowed the well,
3 tested the Wolfcamp and the Morrow both separately and inde-
4 pendently of each other in the initial phase after the treating,
5 flowed them back and flared the well, flared the Wolfcamp
6 and tested it through the separator and into the tanks for
7 six hours while it was cleaning up and after it cleaned up.
8 And flowing at the rate of million and a half a day we aver-
9 aged approximately 21 barrels an hour of distillate.

10 Q Excuse me, a million and a half?

11 A. Cubic feet of gas and --

12 Q A day?

13 A. Per day.

14 Q All right.

15 A. Rate; had 21 barrels per hour average of
16 distillate.

17 Q And this is on the Wolfcamp?

18 A. That was on the Wolfcamp, yes, and that
19 was flowing through the annulus.

20 We have a -- the well is completed with
21 a Model D packer -- not a Model D, but it's a latch set packer
22 with an on and off tool set between the Morrow and the Wolf-
23 camp, and the Morrow was plugged off with a plugging tool,
24 and the Wolfcamp was completed, and then went back with the
25 on and off tool and latched onto the -- reset it and tested

1 the tubing to 5000 pounds and no pressure on the annulus at
2 all. Tested that after we latched onto the tool and we opened
3 the sliding sleeve and swabbed the Morrow in and closed the
4 sleeve and put the Morrow back through the annulus -- and put
5 the Morrow through the tubing and the Wolfcamp through the
6 annulus, and the Wolfcamp is flowing through the annulus and
7 the Morrow through the tubing.

8 MR STAMETS: Well, Mr. Hillin, the Divi-
9 sion has recognized for many, many, many years that the pro-
10 duction of large volumes of liquids through a large casing
11 or a large annular space can be inefficient and can cause
12 waste of reservoir energy and nonproduction of reservoir
13 fluids, and without very detailed engineering demonstrating
14 that this well can be produced efficiently, the Wolfcamp can
15 be produced efficiently through the casing-tubing annulus,
16 I have grave doubts that you will get the dual completion that
17 you seek.

18 A Well, we have -- I really don't know how
19 to answer your question or what to propose in a situation.
20 We could -- the well certainly will produce properly at this
21 point. I'm sure that it would tend to load up as pressure
22 dropped down the line, and -- but it's practically a, you
23 know, its gas/oil ratio is pretty low right now and it's
24 flowing on about 2300 pounds pressure.

25 The shut-in -- the shut-in bottom hole

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 pressure is 4426; was 44 on the drill stem test; was 4429,
2 4426 final after six hours flowing, and the well, as I say,
3 surface pressures, flowing pressure is around 2300, between
4 22 and 2300 pounds on the annulus and it -- and on the test
5 so far it doesn't -- it appears to me that it would be ade-
6 quate.

7 MR. STAMETS: At this point I would feel
8 fairly confident in saying that you won't receive an order
9 granting you what you're requesting in this case.

10 I could also suggest that you might want
11 to continue this case until the other one is advertised to
12 give you an opportunity to review this matter and perhaps
13 you would bring in the engineering testimony that I feel
14 would be needed, or to review the situation and see if there
15 is some other manner that the well could be completed with
16 dual strings of tubing, or a crossover assembly --

17 A. Well, we could run the crossover assembly
18 and the Wolfcamp could cross over from the annulus to the
19 tubing and bring the Wolfcamp up the tubing and the Morrow
20 up the annulus. The Morrow is producing at approximately
21 a million a day and about 7 barrels of distillate per day at
22 the present time. It's been on production now for a few
23 weeks and that's the -- that's the production rate of the
24 Morrow at this time.

25 Q Mr. Hillin, may I ask you, the advertise-

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 435-7409

1 ment and the application in this case indicated the Wolfcamp
2 in fact would be brought up the tubing.

3 What is the expense involved in placing
4 a crossover assembly in the well so that --- or some other
5 mechanical completion so that the Wolfcamp could be brought
6 up the tubing?

7 A. It would be a fairly simple matter. It
8 would cost -- oh, it would just be a matter of pulling the
9 unit and putting a plug in the Morrow and plugging it off
10 and then take the on and off tool out and remove the tubing
11 and going back with a crossover assembly, which we had it
12 designed to put it --- well, that's the reason for the foul-up
13 on this thing, we had the design -- the design was drawn up
14 that way and that's the way I designed it to begin with, but
15 then Otis was doing the work and the day they came out to run
16 the crossover assembly and had it -- to hook it up to the
17 on and off tool, they didn't have the right type packer and
18 assembly to go in there, and they had designed something them-
19 selves and tried to make it work and it wouldn't work. So
20 we came out and went back to the sliding sleeve and completed
21 it that way.

22 Because at that time the equipment from
23 Otis was not available to do it the way --- with what we
24 needed, so we went ahead and completed the well and put the
25 Morrow through the annulus --- Morrow through the tubing and

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 the Wolfcamp through the annulus.

2 But we had originally designed and I had
3 designed it for the crossover assembly of the Morrow-Wolfcamp,
4 to bring the Wolfcamp through the tubing and crossover at
5 that point.

6 And it would be a matter of going back
7 and moving the tubing and putting it in that manner at this
8 time, if we can get the equipment to do it.

9 MR. STAMETS: Well, under those conditions
10 I don't think it would be unreasonable to go ahead and take
11 the case under advisement at this time.

12 MR. KELLAHIN: I would appreciate that
13 with the stipulation being that if the order is entered it
14 would provide for the typical dual completion where the Wolf-
15 camp would come up the tubing.

16 MR. STAMETS: Are there any other ques-
17 tions of Mr. Hillin? He may be excused.

18 Anything further in this case?

19 MR. KELLAHIN: No, sir.

20 MR. STAMETS: The case will be taken
21 under advisement.

22

23

24

25

(Hearing concluded.)

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that
the foregoing Transcript of Hearing before the Oil Conserva-
tion Division was reported by me; that the said transcript
is a full, true, and correct record of the hearing, prepared
by me to the best of my ability.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. _____,
heard by me on _____ 19____.
_____, Examiner
Oil Conservation Division

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

Form O-107
5-1-81

Operator Hillin Production Company		County Eddy	Date June 5, 1980
Address P.O. Box 152, Odessa, Texas 79760		Lease DWU	Well No. #4
Location of Well	Unit 0	Section 34	Township 19S
			Range 28E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES ☒ NO ☐

2. If answer is yes, identify one such instance: Order No. **5075** ; Operator Lease, and Well No.: **HPC - JCW #1**
Case No.

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Wolfcamp		Morrow
b. Top and Bottom of Pay Section (Perforations)	8,998-9,046		11,006-11,026
c. Type of production (Oil or Gas)	Gas		Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing

4. The following are attached. (Please check YES or NO)

- | | | |
|---|-------------------------------------|---|
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.* |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112A.) |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

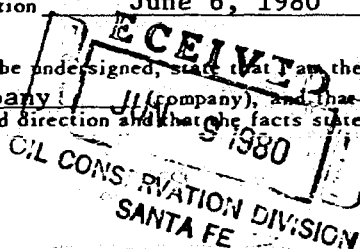
Cities Service Company - Box 1919 - Midland, Texas 79702

Penroc Oil Corporation - Drawer 831 - Midland, Texas 79702

Dorchester Exploration, Inc. - 1100 Midland Natinal Bank Tower - Midland, Texas 79701

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ . If answer is yes, give date of such notification **June 6, 1980**

CERTIFICATE: I, the undersigned, state that I am the **Owner** of the **Hillin Production Company** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.



[Signature]
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 perforation unit in one or more of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
RWH/ww EXHIBIT NO. 4
CASE NO. 6937
Submitted by _____
Hearing Date 24 JUN 80

RECEIVED
JUN - 9 1980
OIL CONSERVATION DIVISION
SANTA FE

2 3/8" TBC - 10,960'

CEMENT TO SURFACE

13 3/4" CSG - 17 1/2" HOLE

TOP CEMENT - 2000' ON 8 5/8"

8 5/8" CSG - 11" HOLE - 2982'

TOP CEMENT - 8100' ON 5 1/2"

WOLF CAMP PERFS

DTIS - "MAD-XO" SLIDING SLEEVE - 9513'

DTIS - ON-OFF TOOL

PAKER - LOC-SET PAKR. - 10,956'

MORFON PERFS

5 1/2" CSG - 7 7/8" HOLE

NEW MEXICO OIL CONSERVATION COMMISSION
PACKER SETTING REPORT

I, R. N. Hillin, being of lawful age and having full
Name of party making report

knowledge of the facts hereinbelow set out do state:

That I am employed by Hillin Production Company in the capacity of
Engineer, that on April 29, 19 80

I personally supervised the setting of a Baker Loc-set w/Otis on-off sleeve
Make & type of packer

in Hillin Production Company, DWU,
Operator of well Lease name

Well no. #4 located in the Winchester field,

Eddy county, state of New Mexico, at a subsurface depth of

10,956 feet, said depth measurement having been furnished me by

R/A marker and G.R. logging tool - corrected to open hole logs.

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, 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.

R. N. Hillin
(Signature)

Owner/Operator

(Title)

June 5, 1980

(Date)

RECEIVED
JUN - 9 1980
OIL CONSERVATION DIVISION
SANTA FE

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
RN Hillin EXHIBIT NO. 5
CASE NO. 6932
Submitted by _____
Hearing Date 24 Jun 80

NEW MEXICO OIL CONSERVATION COMMISSION
PACKER SETTING REPORT

I, R. N. Hillin, being of lawful age and having full
Name of party making report

knowledge of the facts hereinbelow set out do state:

That I am employed by Hillin Production Company in the capacity of
Engineer, that on May 13, 19 80

I personally supervised the setting of a Otis on-off tool on top of Baker loc-set packer,
tested same, w/5,000 PSI-30", Held OK. Make & type of packer
in Hillin Production Company, DWU
Operator of well Lease name

Well no. #4 located in the Winchester field,

Eddy county, state of New Mexico, at a subsurface depth of
10,955' feet, said depth measurement having been furnished me by
tubing strap and wire line plug measurement;

That the purpose of setting this packer was to effect a seal in the annular space between two
strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well,
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.

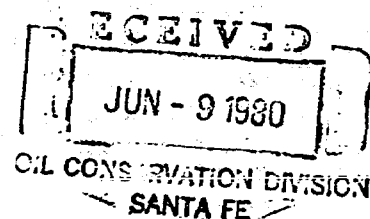
R. N. Hillin
(Signature)

Owner/Operator

(Title)

June 5, 1980

(Date)



BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION R.N.Hillin EXHIBIT NO. <u>6</u> CASE NO. <u>6937</u> Submitted by _____ Hearing Date <u>24 JUN 80</u>
--

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-100
Supersedes C-178
Effective 1-1-75

All distances must be from the outer boundaries of the Section

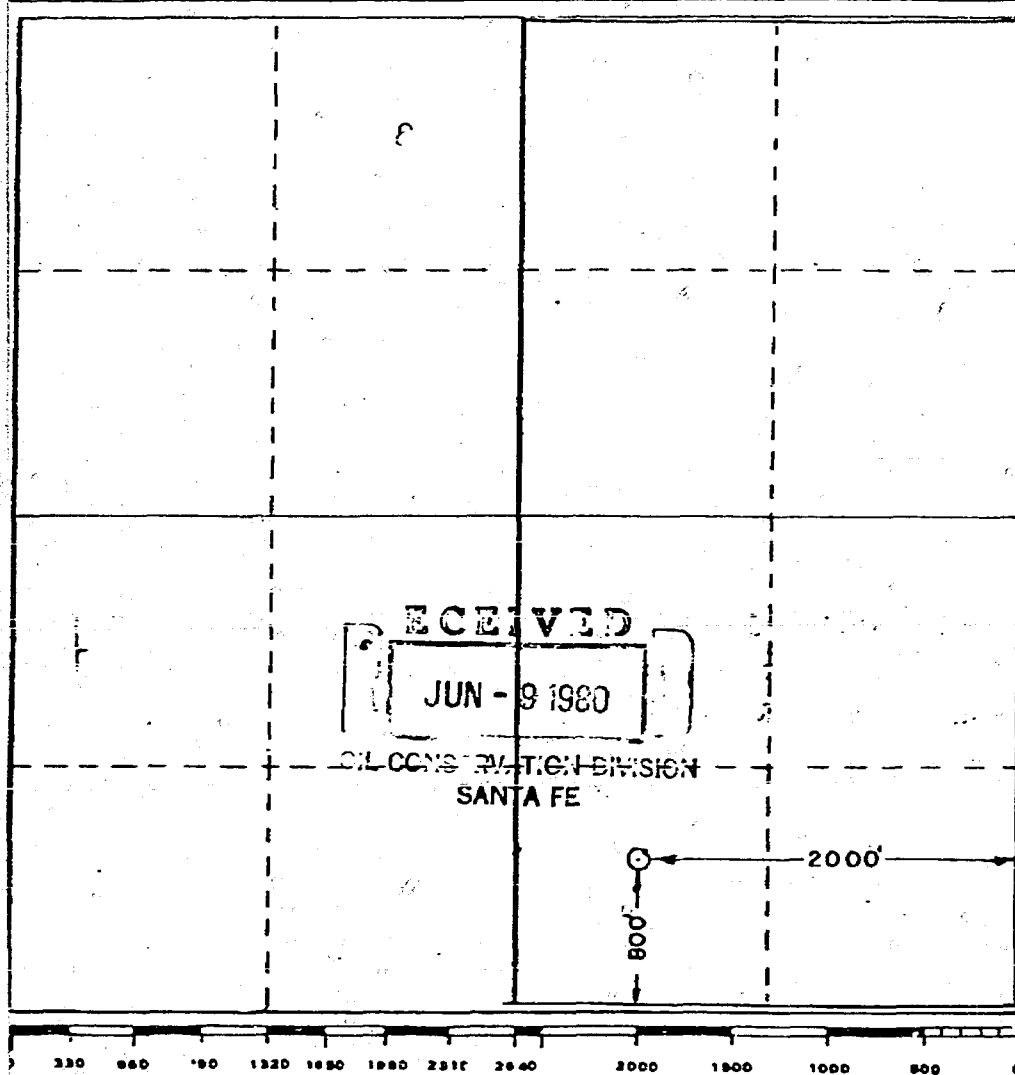
HILLIN PRODUCTION COMPANY			Lease D W U		Well No. #4
Unit Letter "0"	Section 34	Township 19 South	Range 28 East	County Eddy	
Actual Footage Location of Well:					
800	feet from the	South	line and	2000	feet from the East line
Ground Level Elev. 3295.0	Producing Formation Wolfcamp Morrow Sand		Pool	Winchester-Wolfcamp Winchester-Morrow	
Dedicated Acreage:					320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation communitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name B. N. Hillin
Position Owner-Operator
Company Hillin Production Co.
Date October 11, 1979

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed September 17, 1979
Registered Professional Engineer and/or Land Surveyor

Wenschel Jones
Certificate No. 3640

STATE OF NEW MEXICO
DEPARTMENT OF
NATURAL RESOURCES
OIL AND GAS
LAND OFFICE
TRANSPORTER
OPERATOR
REGISTRATION OFFICE
CUSTODIAN

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-104
Revised 10-1-78

REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Hillin Production Company

Address
P.O. Box 152, Odessa, Texas 79760

Reason(s) for filing (Check proper box)

New Well ☒
Recompletion ☐
Change in Ownership ☐

Change in Transporter of:
Oil ☐ Dry Gas ☐
Casinghead Gas ☐ Condensate ☐

Other (Please explain)

If change of ownership give name
and address of previous owner

DESCRIPTION OF WELL AND LEASE

Lease Name DWU	Well No. 4	Pool Name, Including Formation Winchester - Morrow Winchester - Wolfcamp	Kind of Lease State, Federal or Fee	Lease No. NM0473362
Location Unit Letter <u>0</u> ; <u>800</u> Feet From The <u>south</u> Line and <u>2000'</u> Feet From The <u>Past</u>				
Line of Section <u>34</u> Township <u>19-S</u> Range <u>28-E</u> , NMPM, <u>Eddy</u> County				

DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)
El Paso Natural Gas Co.	P.O. Box 1492, El Paso, Texas 79978
If well produces oil or liquids, give location of tanks.	Is gas actually connected? When
Unit <u>0</u> Sec. <u>34</u> Twp. <u>19</u> Rge. <u>28</u>	Yes <u>6-6-80</u>

If this production is commingled with that from any other lease or pool, give commingling order number: No

COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
Date Spudded 2-15-80	Date Compl. Ready to Prod. 5-16-80	Total Depth 11,220	P.B.T.D. 11,185					
Elevations (DF, RKB, RT, CR, etc.) 3298.0 GR	Name of Producing Formation Winchester-Wolfcamp Winchester-Morrow	Top Oil/Gas Pay Wolfcamp - 8,998 Morrow 11,006	Tubing Depth 10,960					
Perforations Wolfcamp-8998-9046	Morrow 11,006-11,026	Depth Casing Shoe 11,220						
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE 17 1/2"	CASING & TUBING SIZE 13 3/8"	DEPTH SET 358'	SACKS CEMENT 225					
11 "	8 5/8"	2,982'	250					
7 7/8"	5 1/2"	11,220'	750					

TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL. (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

GAS WELL WOLF CAMP - 6,000 MCFPD JUN 4 8 1980 Flow thru annulus on 3/8" choke wellhead

Actual Prod. Test-MCF/D Morrow 2,200	Length of Test 6 hours	Bbls. Condensate/MCF	Gravity of Condensate
Testing Method (pilot, back pr.) Flare to pit	Tubing Pressure (844.2 psig)	Casing Pressure (Shot-in)	Choke Size 3/4" wellhead

CERTIFICATE OF COMPLIANCE

hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

D. G. Hillin
(Signature)

Owner/Operator

June 5, 1980

(Date)

OIL CONSERVATION DIVISION

APPROVED _____, 19____

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1104.
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filled for each pool in multiply completed wells.

- CASE 6935: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Basin-Dakota and undesignated Gallup production in the wellbore of its June Joy Well No. 2 located in Unit B of Section 25, Township 24 North, Range 10 West.
- CASE 6936: Application of Dugan Production Corporation for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the S/2 of Section 26, Township 30 North, Range 14 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 6916: (Continued from June 4, 1980, Examiner Hearing)
Application of Petro-Lewis Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of the Drinkard and Blinbry production in the wellbore of its State DC Well No. 1, a quadruple completion located in Unit F of Section 19, Township 21 South, Range 37 East.
- CASE 6937: Application of R. N. Hillin for an unorthodox location and dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of his DWV Well No. 4 to produce gas from the Wolfcamp and Morrow formations thru tubing and the annulus, respectively. Applicant further seeks approval of the unorthodox location of said well in the Wolfcamp and Pennsylvanian formations at a point 800 feet from the South line and 2000 feet from the East line of Section 34, Township 19 South, Range 28 East.
- CASE 6938: Application of Anadarko Production Company for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Dalport Federal Well No. 1 660 feet from the South and West lines of Section 20, Township 13 South, Range 31 East, Southeast Chaves Queen Gas Area, the W/2 of said Section 20 to be dedicated to the well.
- CASE 6939: Application of Anadarko Production Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests at a depth from 2400 feet to 5000 feet below the surface, Turkey Track Field, underlying the NE/4 SE/4 of Section 10, Township 19 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 6940: Application of Adobe Oil Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down through the Wolfcamp formation underlying the NW/4 SE/4 for oil and the SE/4 for gas, Section 23, Township 20 South, Range 38 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.
- CASE 6941: Application of Ellwade Corporation for a non-standard gas proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 129.52-acre non-standard gas proration unit comprising the W/2 of partial Section 33, Township 26 South, Range 30 East, Ross Draw-Wolfcamp area, to be dedicated to its Ross Draw Well No. 1 located in Unit C of said Section 33.
- CASE 6942: Application of Benson-Montin-Greer Drilling Corporation for amendment of Order No. R-2565-B, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rule 2 of the Special Pool Rules for the West Puerto Chiquito-Mancos Oil Pool as promulgated by Order No. R-2565-B to provide that all 320-acre spacing and proration units in said pool would comprise either the W/2 or the E/2 of a governmental section, provided however, that one injection well would have dedicated thereto the N/2 of Section 1, Township 24 North, Range 1 West, and also that the short 400-acre sections on the South side of Township 27 North, Range 1 West, would each comprise a single spacing unit.
- CASE 6943: Application of Benson-Montin-Greer Drilling Corporation for a unit agreement, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the East Puerto Chiquito-Mancos Unit Area, comprising 9,769 acres, more or less, of Federal, Indian, and fee lands in Townships 26 and 27 North, Ranges 1 East and 1 West.

KELLAHIN and KELLAHIN

Attorneys at Law

Jason Kellahin
W. Thomas Kellahin
Karen Aubrey

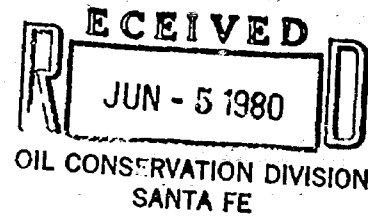
500 Don Gaspar Avenue
Post Office Box 1769
Santa Fe, New Mexico 87501

Telephone 982-4285
Area Code 505

June 5, 1980

Mr. Joe Ramey
New Mexico Oil Conservation Division
Santa Fe, New Mexico

HAND DELIVERED



re: Application of R. N.
Hillin for unorthodox
well location and dual
completion, Eddy County,
New Mexico

Dear Joe:

Case 6937

Please set the referenced application for hearing
on June 25, 1980.

Thank you for your assistance in this matter.

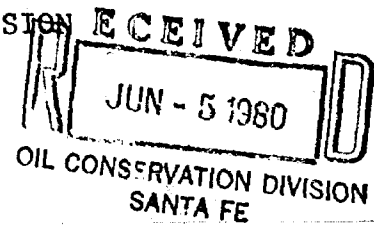
Very truly yours,

W. Thomas Kellahin
W. Thomas Kellahin

cc: Oscar Person
encl.
WTK:msf

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY AND MINERALS

OIL CONSERVATION DIVISION



Case 6937

IN THE MATTER OF THE APPLICATION OF
R. N. HILLIN FOR AN UNORTHODOX WELL
LOCATION AND DUAL COMPLETION, EDDY
COUNTY, NEW MEXICO.

APPLICATION

COMES NOW R. N. HILLIN, by and through his attorneys, KELLAHIN & KELLAHIN, and applies to the New Mexico Oil Conservation Division for approval of an unorthodox well location and dual completion, Eddy County, New Mexico and in support thereof would show:

1. Pursuant to Division Order No. R-6106 entered for R. H. HILLIN in Case 6579 dated September 19, 1979, Applicant has drilled a Morrow test at the approved unorthodox well location 800 feet from the South line and 2000 feet from the East line of Section 34, T19S, R28E, NMPM, Eddy County, New Mexico.

2. That the subject well is capable of producing from both the Morrow formation and the Wolfcamp formations with further potential for future production from the Atoka formation and other Pennsylvanian formations at a later date.

3. Applicant seeks authority for production of the subject well as a Wolfcamp-Morrow dual completion with authority for subsequent production from any other of the Pennsylvanian formations in a dual capacity.

4. Applicant further seeks a test allowable for the Wolfcamp formation so that the subject well can be produced pending hearing and order.

5. The Application is in the best interests of conservation, the prevention of waste and the protection of correlative rights

and will result in the production of hydrocarbons that would not otherwise be produced.

WHEREFORE, Applicant requests that the Application be set for hearing before the Division's Examiner and that after notice and hearing the Application be granted as requested.

R. N. HILLIN

By 

W. Thomas Kellahin
Kellahin & Kellahin
P. O. Box 1769
Santa Fe, New Mexico 87501
Phone: 505-982-4285

ATTORNEYS FOR APPLICANT

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY AND MINERALS
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF
R. N. HILLIN FOR AN UNORTHODOX WELL
LOCATION AND DUAL COMPLETION, EDDY
COUNTY, NEW MEXICO.

Case 6937

APPLICATION

COMES NOW R. N. HILLIN, by and through his attorneys, KELLAHIN & KELLAHIN, and applies to the New Mexico Oil Conservation Division for approval of an unorthodox well location and dual completion, Eddy County, New Mexico and in support thereof would show:

1. Pursuant to Division Order No. R-6106 entered for R. H. HILLIN in Case 6579 dated September 19, 1979, Applicant has drilled a Morrow test at the approved unorthodox well location 800 feet from the South line and 2000 feet from the East line of Section 34, T19S, R28E, NMPM, Eddy County, New Mexico.

2. That the subject well is capable of producing from both the Morrow formation and the Wolfcamp formations with further potential for future production from the Atoka formation and other Pennsylvanian formations at a later date.

3. Applicant seeks authority for production of the subject well as a Wolfcamp-Morrow dual completion with authority for subsequent production from any other of the Pennsylvanian formations in a dual capacity.

4. Applicant further seeks a test allowable for the Wolfcamp formation so that the subject well can be produced pending hearing and order.

5. The Application is in the best interests of conservation, the prevention of waste and the protection of correlative rights

and will result in the production of hydrocarbons that would not otherwise be produced.

WHEREFORE, Applicant requests that the Application be set for hearing before the Division's Examiner and that after notice and hearing the Application be granted as requested.

R. N. HILLIN

By

W. Thomas Kellahin
Kellahin & Kellahin
P. O. Box 1769
Santa Fe, New Mexico 87501
Phone: 505-982-4285

ATTORNEYS FOR APPLICANT

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY AND MINERALS
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF
R. N. HILLIN FOR AN UNORTHODOX WELL
LOCATION AND DUAL COMPLETION, EDDY
COUNTY, NEW MEXICO.

Case 6937

APPLICATION

COMES NOW R. N. HILLIN, by and through his attorneys, KELLAHIN & KELLAHIN, and applies to the New Mexico Oil Conservation Division for approval of an unorthodox well location and dual completion, Eddy County, New Mexico and in support thereof would show:

1. Pursuant to Division Order No. R-6106 entered for R. H. HILLIN in Case 6579 dated September 19, 1979, Applicant has drilled a Morrow test at the approved unorthodox well location 800 feet from the South line and 2000 feet from the East line of Section 34, T19S, R28E, NMPM, Eddy County, New Mexico.
2. That the subject well is capable of producing from both the Morrow formation and the Wolfcamp formations with further potential for future production from the Atoka formation and other Pennsylvanian formations at a later date.
3. Applicant seeks authority for production of the subject well as a Wolfcamp-Morrow dual completion with authority for subsequent production from any other of the Pennsylvanian formations in a dual capacity.
4. Applicant further seeks a test allowable for the Wolfcamp formation so that the subject well can be produced pending hearing and order.
5. The Application is in the best interests of conservation, the prevention of waste and the protection of correlative rights

and will result in the production of hydrocarbons that would not otherwise be produced.

WHEREFORE, Applicant requests that the Application be set for hearing before the Division's Examiner and that after notice and hearing the Application be granted as requested.

R. N. HILLIN

By

W. Thomas Kellahin
Kellahin & Kellahin
P. O. Box 1769
Santa Fe, New Mexico 87501
Phone: 505-982-4285

ATTORNEYS FOR APPLICANT

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY AND MINERALS
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION OF
R. N. HILLIN FOR AN UNORTHODOX WELL
LOCATION AND DUAL COMPLETION, EDDY
COUNTY, NEW MEXICO.

APPLICATION

COMES NOW R. N. HILLIN, by and through his attorneys, KELLAHIN & KELLAHIN, and applies to the New Mexico Oil Conservation Division for approval of an unorthodox well location and dual completion, Eddy County, New Mexico and in support thereof would show:

1. Pursuant to Division Order No. R-6106 entered for R. H. HILLIN in Case 6579 dated September 19, 1979, Applicant has drilled a Morrow test at the approved unorthodox well location 800 feet from the South line and 2000 feet from the East line of Section 34, T19S, R28E, NMPM, Eddy County, New Mexico.
2. That the subject well is capable of producing from both the Morrow formation and the Wolfcamp formations with further potential for future production from the Atoka formation and other Pennsylvanian formations at a later date.
3. Applicant seeks authority for production of the subject well as a Wolfcamp-Morrow dual completion with authority for subsequent production from any other of the Pennsylvanian formations in a dual capacity.
4. Applicant further seeks a test allowable for the Wolfcamp formation so that the subject well can be produced pending hearing and order.
5. The Application is in the best interests of conservation, the prevention of waste and the protection of correlative rights

and will result in the production of hydrocarbons that would not otherwise be produced.

WHEREFORE, Applicant requests that the Application be set for hearing before the Division's Examiner and that after notice and hearing the Application be granted as requested.

R. N. HILLIN

By W. Thomas Kellahin
Kellahin & Kellahin
P. O. Box 1769
Santa Fe, New Mexico 87501
Phone: 505-982-4285

ATTORNEYS FOR APPLICANT

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

Case 6937

Form O-107
5-1-61

Operator Hillin Production Company		County Eddy	Date June 5, 1980
Address P.O. Box 152, Odessa, Texas 79760		Lease DWU	Well No. #4
Location of Well	Unit 0	Section 34	Township 19S
			Range 28E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES ☒ NO ☐
2. If answer is yes, identify one such instance: Order No. **5075** ; Operator Lease, and Well No.: **HPC - JCW #1**
Case No.

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Wolfcamp		Morrow
b. Top and Bottom of Pay Section (Perforations)	8,998-9,046		11,006-11,026
c. Type of production (Oil or Gas)	Gas		Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing

4. The following are attached. (Please check YES or NO)

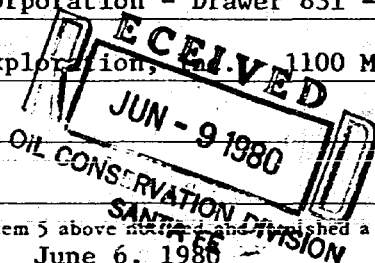
- | | | |
|---|-------------------------------------|---|
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.* |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed it shall be submitted as provided by Rule 112-A.) |

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Cities Service Company - Box 1919 - Midland, Texas 79702

Penroc Oil Corporation - Drawer 831 - Midland, Texas 79702

Dorchester Exploration, 1100 Midland Natinal Bank Tower - Midland, Texas 79701



6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ . If answer is yes, give date of such notification **June 6, 1980**

CERTIFICATE: I, the undersigned, state that I am the **Owner** of the **Hillin Production Company** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

H. G. Hillin
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.

← SURFACE F/W ← X

CEMENT TO SURFACE

← 13 3/8" CSG - 17 1/2" HOLE

← TOP CEMENT - 2000' ON 8 5/8"

8 5/8" CSG - 11" HOLE - 2982'

← TOP CEMENT - 8100' ON 5 1/2"

WOLF CAMP PERFS

OTIS - "MOD-XO" SLIDING SLEEVE - 9513'

RECEIVED
JUN - 9 1980
OIL CONSERVATION DIVISION
SANTA FE

2 3/8" TBG - 10,960'

OTIS - ON-DEE TOOL

PAKER - LOC-SET PAK - 10,956'

MORROW PERFS

5 1/2" CSG - 7 7/8" HOLE

NEW MEXICO OIL CONSERVATION COMMISSION
PACKER SETTING REPORT

I, R. N. Hillin, being of lawful age and having full
Name of party making report
knowledge of the facts hereinbelow set out do state:

That I am employed by Hillin Production Company in the capacity of
Engineer, that on April 29, 1980

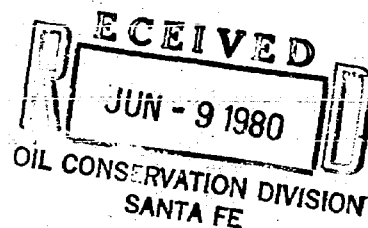
I personally supervised the setting of a Baker Loc-set w/Otis on-off sleeve
Make & type of packer
in Hillin Production Company, DWU
Operator of well Lease name

Well no. #4 located in the Winchester field,

Eddy county, state of New Mexico, at a subsurface depth of
10,956 feet, said depth measurement having been furnished me by

R/A marker and G.R. logging tool - corrected to open hole logs.

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, 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.



R. N. Hillin
(Signature)

Owner/Operator
(Title)

June 5, 1980
(Date)

NEW MEXICO OIL CONSERVATION COMMISSION
PACKER SETTING REPORT

I, R. N. Hillin, being of lawful age and having full
Name of party making report

knowledge of the facts hereinbelow set out do state:

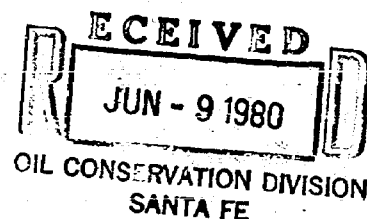
That I am employed by Hillin Production Company in the capacity of
Engineer, that on May 13, 19 80

I personally supervised the setting of a Otis on-off tool on top of Baker loc-set packer,
tested same, w/5,000 PSI-30", Held OK. Make & type of packer
in Hillin Production Company, DWU
Operator of well Lease name

Well no. #4 located in the Winchester field,
Eddy county, state of New Mexico, at a subsurface depth of
10,955' feet, said depth measurement having been furnished me by

tubing strap and wire line plug measurement;

That the purpose of setting this packer was to effect a seal in the annular space between two strings of pipe where the packer was set so as to prevent the commingling, in the bore of this well, 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.



R. N. Hillin
(Signature)
Owner/Operator
(Title)
June 5, 1980
(Date)

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

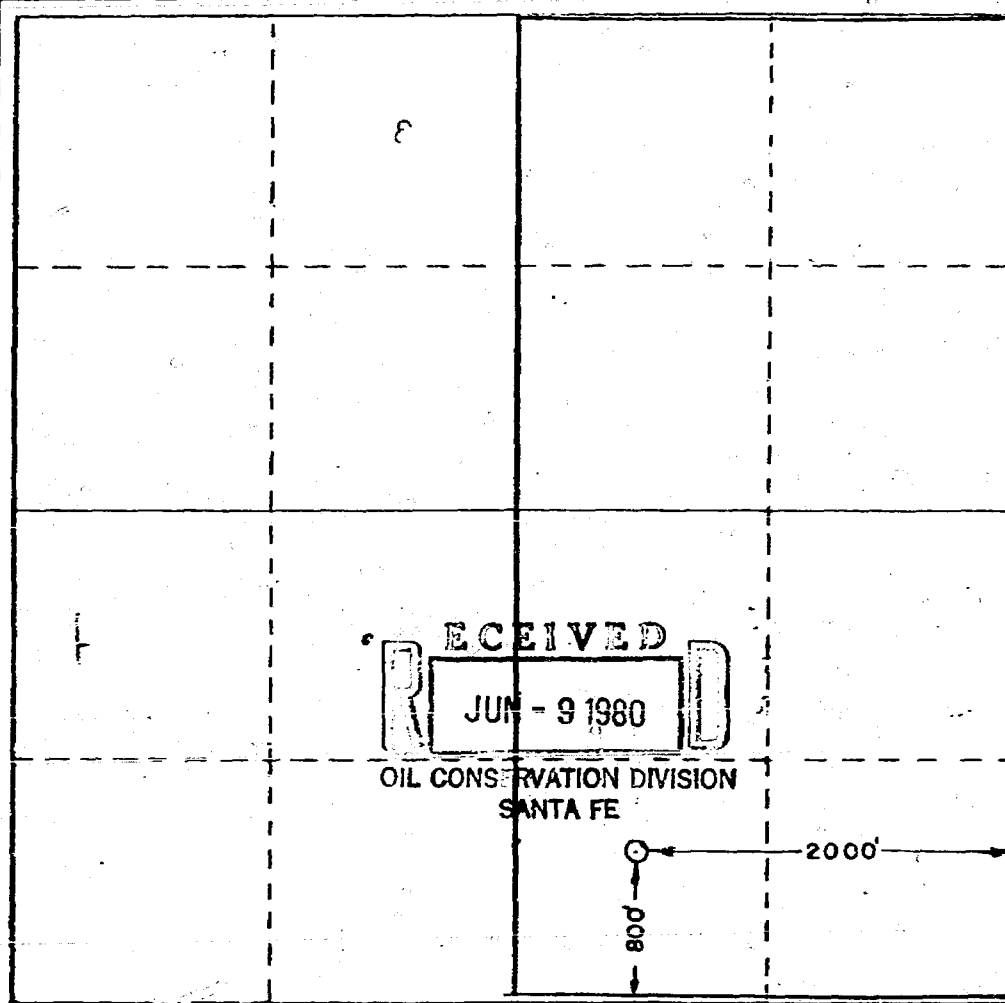
Operator HILLIN PRODUCTION COMPANY			Lease D W U		Well No. #4
Unit Letter "O"	Section 34	Township 19 South	Range 28 East	County Eddy	
Actual Footage Location of Well:					
800 feet from the South line and		2000 feet from the East line			
Ground Level Elev. 3298.0	Producing Formation Wolfcamp Morrow Sand	Pool Winchester-Wolfcamp Winchester-Morrow	Dedicated Acreage: 320 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation communitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

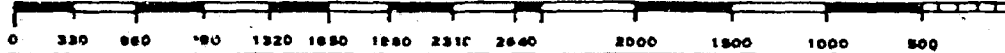
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name B. N. Hillin
Position Owner-Operator
Company Hillin Production Co.
Date October 11, 1979

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed September 17, 1979
Registered Professional Engineer and/or Land Surveyor

L. J. Schell
Certificate No. 3640



OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-104
Revised 10-1-70

STATE OF NEW MEXICO	
DEPARTMENT OF	
LAND OFFICE	
TRANSPORTER	
OPERATOR	
REGISTRATION OFFICE	
UNIT NO.	

REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Hillin Production Company

Address

P.O. Box 152, Odessa, Texas 79760

Reason(s) for filing (Check proper box)

New Well ☒
Recompletion ☐
Change in Ownership ☐

Change in Transporter of:

Oil ☐ Dry Gas ☐
Casinghead Gas ☐ Condensate ☐

Other (Please explain)

If change of ownership give name
and address of previous owner

I. DESCRIPTION OF WELL AND LEASE

Lease Name DWU	Well No. 4	Pool Name, including Formation Winchester - Morrow Winchester - Wolfcamp	Kind of Lease State, Federal or Fee	Lease No. NM0473362
Location Unit Letter <u>0</u> : <u>800</u> Feet From The <u>south</u> Line and <u>2000'</u> Feet From The <u>east</u> Line of Section <u>34</u> Township <u>19-S</u> Range <u>28-E</u> , NMPM, <u>Eddy</u> County				

II. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)	
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)	
<u>El Paso Natural Gas Co.</u>	<u>P.O. Box 1492, El Paso, Texas 79978</u>	
If well produces oil or liquids, give location of tanks.	Unit <u>0</u>	Sec. <u>34</u>
	Twp. <u>19</u>	Rge. <u>28</u>
	Is gas actually connected? <u>Yes</u> When <u>6-6-80</u>	

If this production is commingled with that from any other lease or pool, give commingling order number:

No

III. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		<u>X</u>	<u>X</u>					
Date Spudded <u>2-15-80</u>	Date Compl. Ready to Prod. <u>5-16-80</u>		Total Depth <u>11,220</u>		P.B.T.D. <u>11,185</u>			
Elevations (DF, RKB, RT, GR, etc.) <u>3298.0 GR</u>	Name of Producing Formation <u>Winchester-Wolfcamp</u> <u>Winchester-Morrow</u>		Top Oil/Gas Pay <u>Wolfcamp - 8,998</u> <u>Morrow - 11,006</u>		Tubing Depth <u>10,960</u>			
Perforations <u>0000 0016</u>					Depth Casing Shoe <u>11,220</u>			

R. N. HILLIN
PRESIDENT



T. G. FURSTENBERG
DRILLING SUPT.
OFFICE: 563-1203
NITE: 332-3164

INCLINATION REPORT

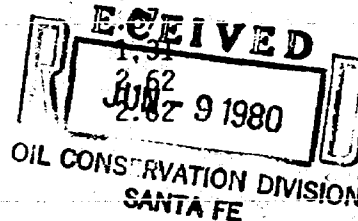
Lease Operator: Hillin Production Company
PO Box 152
Odessa, Texas 79760

Lease Name: D W U
Well Number: 4

County: Eddy, N.M.

RECORD OF INCLINATION

Measured Depth	Course Length	Angle of Inclination	Displacement per 100 ft.	Course Displacement	Accumulative Displacement
358	358	1/4	.44	1.57	1.57
720	362	1/4	.44	1.59	3.16
1028	308	3/4	1.31	4.03	7.19
1499	471	3/4	1.31	6.17	13.36
1958	459	1/2	.87	3.99	17.35
2210	252	1/2	.87	2.19	19.54
2461	251	1/2	.87	2.18	21.72
2702	241	3/4	1.31	3.15	24.87
3091	389	1	1.75	6.80	31.67
3479	388	1	1.75	6.79	38.46
3979	500	1	1.75	8.75	47.21
4471	492	1	1.75	8.61	55.82
4844	373	1	1.75	6.52	62.34
5114	270	1	1.75	4.72	67.06
5611	497	1	1.75	8.69	75.75
6104	493	1 1/4	2.18	10.74	86.49
6520	416	4	6.98	29.03	115.52
6567	47	4	6.98	3.28	118.80
6630	63	3 1/4	5.67	3.57	122.37
6689	59	3	5.23	3.08	125.45
6789	97	3 1/4	5.67	5.49	130.94
6939	153	4 1/2	7.85	12.01	142.95
7000	61	3 3/4	6.54	3.98	146.93
7062	62	3	5.23	3.24	150.17
7134	72	3 1/2	6.10	4.39	154.56
7185	51	2 3/4	4.80	2.44	157.00
7278	93	2	3.49	3.24	160.24
7778	500	1/2	.87	4.35	164.59
8274	496	1/2	.87	4.31	168.90
85.32	258	1/2	.87	2.24	171.14
8790	258	3/4	1.31	3.37	174.51
9067	277	1 1/2	2.62	.25	181.76
9462	395	1 1/2	2.62	10.34	192.10



ROUGH

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6937

Order No. R-6398

APPLICATION OF R. N. HILLIN FOR AN UNORTHODOX LOCATION AND
~~FOR A~~ DUAL COMPLETION, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on
June 25, 1980, at Santa Fe, New Mexico, before
Examiner Richard L. Stamets.

NOW, on this _____ day of June, 1980, the
Division Director, 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 Division has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, R. N. Hillin,
seeks authority to complete ~~in~~ his DTMV well No 4
Well No. _____, located in Unit 00 of Section 34, Town-
ship 19 South, Range 28 East, NMPM, Eddy
County, New Mexico, as a dual completion (conventional) to
(combination)
(tubingless)

produce gas from the from the Wolfcamp and Morrow
formations ~~stop~~ through tubing and the casing -
Tubing annulus respectively by means of a cross-over
assembly.

(4) That because of the large volume of
liquids produced from the Wolfcamp zone
and the lack of evidence ~~showing~~ to
show that said zone could be efficiently
produced through the annulus this
reversal should be denied and the

and should be approved.

(6) That the applicant further seeks approval of the unorthodox location of said well in the Wolfcamp and Pennsylvanian formations at a point 800 feet from the South line and 2000 feet from the East line of ^{said} Section 34, Township 19 South, Range 28, East, NMPM, Eddy County, New Mexico.

(6)

(7)(2) That the E/2 of said Section 34 is to be dedicated to the well.

(8)(2) That a well at said unorthodox location will better enable applicant to produce the gas underlying the proration unit.

(7)(2) That no offset operator objected to the proposed unorthodox location.

(10)(2) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, R. N. Hillin, is hereby authorized to complete its DMU Well No. 4, located in Unit 0 of Section 34, Township 19 South, Range 28 East, NMPM, Eddy County, New Mexico, as a dual completion (conventional) ~~(conventional)~~ ~~(tubingless)~~

~~and~~ to produce gas from the Wolfcamp formation through tubing and gas from the Morrow formation through the casing-tubing annulus by means of a crossover assembly ~~located at approximately 10,955 feet~~ ^{located at approximately 10,955 feet}

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Shut In Pressure Test Period for ~~gas~~ gas wells in Southeastern New Mexico

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

-2-

Case No. _____

Order No. R- _____

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS ^{Further} ~~THEREFORE~~ ORDERED:

(1) That an unorthodox gas well location for the Waltcamp and Pennsylvanian formation is hereby approved for ^{said DMU Well No 4} ~~a well to be located~~ at a point 800 feet from the 800 South line and 2000 feet from the East line of Section 34, Township 19 South, Range 28 East NMPM, Eddy County, New Mexico.

(2) That the E/2 of said Section 34 shall be dedicated to the above-described well.

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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