

CASE 5075: Application of HILLIN
PRODUCTION FOR A DUAL COMPLETION,
EDDY COUNTY, NEW MEXICO.

CASE No.

5075

Application,

Transcripts,

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
CONFERENCE ROOM, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
October 17, 1973

EXAMINER HEARING

IN THE MATTER OF:

Application of Hillin
Production Company for a dual
completion, Eddy County, New
Mexico

Case No. 5075

BEFORE: DANIEL S. NUTTER,
Examiner

TRANSCRIPT OF HEARING

1 MR. NUTTER: Call case Number 5075.

2 MR. CARR: Case 5075, application of Hillin
3 Production Company for a dual completion, Eddy County,
4 New Mexico.

5 MR. STEVENS: Mr. Nutter, I'm Don Stevens, attorney
6 from Santa Fe representing applicant. We have one witness
7 to be sworn.

8
9 R. N. HULLIN,
10 was called as a witness, and after being duly sworn,
11 testified as follows:

12 DIRECT EXAMINATION

13 BY MR. STEVENS:

14 Q Will you state your name, your residence and your occupation
15 and for whom you're employed?

16 A R. N. Hillin, live in Odessa, Texas. I'm owner-operator
17 of Hillin Drilling Company and the operator-owner of
18 Hillin Production Company.

19 Q Have you previously testified before the New Mexico Oil
20 Conservation Commission?

21 A No, sir.

22 Q Would you briefly outline your experience qualifying you?

23 A I've been in the drilling business, in the oil business
24 for about 34 years in drilling and completing oil wells
25 and worked for several different drilling companies and

1 have had the drilling business of my own for 18 years
2 and production business that I have been with myself and
3 other people for approximately 12 years.

4 Q During this 12 years production business, were you
5 actively concerned with the completion of oil and gas
6 wells in Southeast New Mexico and West Texas?

7 A West Texas and New Mexico.

8 Q And during that period of time, you were concerned also
9 with dual completions to some degree?

10 A Yes.

11 MR. STEVENS: Are the witnesses qualifications
12 acceptable?

13 MR. NUTTER: Yes, they are.

14 Q (By Mr. Stevens) Could you briefly state what the
15 applicant seeks in this hearing today?

16 A We seek an application for a dual completion of a Morrow
17 Strawn gas well in Eddy County.

18 Q What is the location of the Morrow Strawn well?

19 A It's Unit C, Section 2, 20 South, 28 East, Eddy County,
20 New Mexico.

21 Q Is that the section exhibited on what has been marked as
22 Exhibit 1 in this hearing?

23 A Yes, that is correct.

24 Q Would you refer to that exhibit and explain it for the
25 Commission, additionally?

1 A Yes, sir. The well's located 1980 from the west 660
2 from the north line of Section 2 of 2028. It represents
3 communitized 320 acres, north half of Section 2.

4 At the time this application was made, there was
5 one producing well in the adjoining section in the south-
6 east quarter of the section to the north and since then,
7 there is another well drilled in that section in the
8 north half and dry hole drilled on the section to the
9 east and a well drilled 198660 from the west that's just
10 about at total depth now.

11 Q Excuse me. Is that 1980 from the south --

12 A I'm sorry. This well 1980 from the south and the west
13 of Section 2 that is drilled and cased at this point and
14 also, City Service now has drilled a well 1980 and 660
15 from the north -- 1980 from the north and 660 from the
16 east of Section 3, Don, I guess that would be, right here
17 and Williamson-Underwood drilled one 1980 and 660 from
18 the -- 1980 from the north, 660 from the west of this
19 section.

20 Q Section 1, that is?

21 A Right. It's a dry hole.

22 Q Is the acreage allocable to this well supposed to be dual
23 the north half of Section 1 as depicted on this map?

24 A Yes, sir, that's correct.

25 Q And that's a dual in the Strawn and the Morrow?

1 A Yes, sir, that's right.

2 Q The field is the Winchester-Morrow?

3 A Yes, sir.

4 Q And this is in Eddy County?

5 A Yes, sir. Winchester-Morrow is Eddy County, yes, sir.

6 Q Referring to what has been marked as Exhibit Number 2,
7 could you explain it for the commission?

8 A Yes, this is a schematic drawing of the casing cased in
9 cement program on the JCW state communitized number 1
10 well as we were speaking of. It has 13 3/8 casing set
11 and cemented -- circulated cement to surface. We set
12 2900 and approximately 2950 feet of 8 5/8, cemented back
13 to 2300 feet. Set 11,260 feet of 5 1/2 inch 1080 casing
14 and cemented back to approximately 9000 feet from the
15 surface.

16 We have tubing set through a Model D Packer,
17 2 1/2 x-line tubing set through a Model D Packer at 10,990
18 feet with a four foot extension on the bottom of it.

19 The Morrow is perforated 11038 fifty. The Strawn
20 is perforated 10078 to 099. We have a cast iron bridge
21 plug above at approximately 11125.

22 Q That's below your Morrow perforations?

23 A Yes, below the Morrow perforations, that's right.

24 Q Referring to what has been marked Exhibit Number 3, would
25 you explain that for the commission?

1 A This is the application for the multiple completion,
2 filed on Form C107, listing the items the Strawn's on
3 and the perforations on it and the Morrow zone and listing
4 the offset operators in all four directions from this
5 section.

6 Q Referring to Exhibit Number 4, would you go over it for
7 the commission?

8 A That's the New Mexico Packer setting report that's filed
9 showing the setting of the Baker Model D Packer at
10 10,990 feet.

11 Q And this states, does it not, that you personally
12 supervised the setting of that Packer, is that correct?

13 A Yes, sir, that is correct.

14 Q Referring to what has been marked Exhibit Number 5, would
15 you explain that, please?

16 A This is the Packer leakage test that was taken with the
17 four point testing of the Strawn interval. The upper
18 zone was flowing with the Morrow zone tubing shut in and
19 indicates no Packer leakage between the two zones.

20 Q On your Flow Test Number 2, you don't have that filled in.
21 Could you explain that, please?

22 A Since this Packer leakage test was taken on the 17th
23 of last month, the Morrow zone was put on production and
24 the Morrow zone has been flowing now for approximately 28,
25 29 days and the pressure on the Strawn annular casing is

1 still setting on 2845. There's been no change in it
2 during this time. Morrow has been flowing from 12 to
3 15 hundred pounds flow pressure.

4 Q There was no change in this Strawn pressure before or
5 after the Morrow was producing?

6 A No, sir, that's right. There's been no change in it at
7 all, at any time, during the 28 or 30 days the well's
8 been flowing. I've checked this probably 20 times during
9 that time and it's setting on 2845.

10 Q Referring to what has been marked Applicant's Exhibit
11 Number 6, would you explain it, please?

12 A This is the letter that was mailed and notified -- was
13 carried, in fact -- let me rephrase that.

14 This letter was drawn up and had the offset operator
15 to sign for the waiver agreeing, or in our application
16 to dual complete this well.

17 Q This is all of the operators and leases surrounding the
18 proposed dual completion?

19 A Yes, this is every operator that has any leases within
20 any surrounding acreage of this section in all four
21 directions.

22 Q And they all agreed this was a proper procedure and they
23 had no objections thereto?

24 A Yes, sir, that is correct.

25 Q Referring to what has been marked as Applicant's Exhibit

1 Number 7, would you explain it, please?

2 A This is the chart we use, the flow chart, when we tested
3 the Strawn, ran the four point test on the Strawn and we
4 ran the charts on the pressure on the Morrow tubing at
5 that time.

6 This relates back to the top half of the Packer
7 leakage test in Exhibit 5 and the chart that goes with
8 that.

9 Q And this exhibit indicates there was no Packer leakage,
10 is that correct?

11 A That's correct, yes. The Morrow was -- we were flowing
12 strong for several hours and there was no change in the
13 Morrow tubing pressure at all, other than the fact it
14 gained ten pounds during the 24 hours.

15 Q Referring to what has been marked as Applicant's Exhibit
16 Number 8, could you explain it, please?

17 A This is a four point test on the potential -- potential
18 test on the Strawn. It's done by Mr. J. C. Roberts, who
19 is the engineer for El Paso Natural Gas Company and
20 these are his facts and figures that he made and turned
21 in and reported to me.

22 I did witness the test, but as I say, these are
23 his calculations and his figures and I'm aware of the
24 test and what was produced and what was made during that
25 period of time, but he did all this calculations.

1 Q The results of that test are shown on Exhibit Number 5
2 -- are the results of that test shown on Exhibit Number
3 5, the Packer leakage test?
4 A Yes, that is correct.
5 Q Referring to what has been marked as Exhibit Number 9,
6 could you explain that for the commission?
7 A This is a log, electric log of the well showing the
8 porosities and zones of interest that were perforated and
9 the -- you've got this wrong.
10 Q Point out the error on that, would you, please?
11 A Did I do that, sir? Pardon me. I believe I have mine
12 right. Don just did this this morning. I brought this
13 new log up here and he put these on here, but there are
14 in the wrong spot here.
15 Q Would you state where those perforations should be shown
16 on that?
17 A Yes, the perforations on this log, they are supposed to
18 be at 11,038 to 50. Is that where you have that, sir?
19 MR. NUTTER: Right. They are okay on this one,
20 but there's no Strawn perforations shown.
21 A Do we not have the Strawn perforations?
22 MR. NUTTER: No, sir.
23 Q Well, the Strawn perforations are from --
24 MR. NUTTER: 1078 to 99, I believe?
25 A Yes, sir, 10,078 to 10,099.

1 MR. NUTTER: Yes, they're on here. I didn't look
2 far enough.

3 A That's the log I mailed in, I believe, isn't it?

4 Q (By Mr. Stevens) We'll correct that one.

5 Where do you have your Packer set?

6 A The Packer is set at 10,990 and as I say, it's a Baker
7 Model D with a lock set assembly in it, seal assembly
8 through it with a four foot extension below.

9 Q Mr. Hillin, in your opinion, will the granting for this
10 application for a dual completion from the Morrow gas and
11 Strawn gas protect the correlative rights and tend to
12 prevent waste?

13 A Yes, sir.

14 MR. STEVENS: At this time, Mr. Examiner, we'd like
15 to submit in evidence Applicant's Exhibits 1 through 9.

16 MR. NUTTER: Exhibits 1 through 9 will be admitted
17 in this case.

18 MR. STEVENS: We have no further questions.

19

20

CROSS EXAMINATION

21 BY MR. NUTTER:

22 Q Mr. Hillin, this test that you've got on the Strawn
23 during the Packer leakage test is the only test that has
24 been run on the Strawn, is this correct?

25 A Yes, sir, that's correct.

1 Q I noticed here on Exhibit Number 5, you report that
2 you had gas production of 50.2 MCF during the test and
3 12 barrels of fluid or oil and a GOR of 2.2000 to one.

4 A I calculate that --

5 Q That would be more like 4000.

6 A I calculate that to be four point something, but as I say,
7 Mr. Roberts with El Paso made out this chart and typed
8 it up after he ran these tests and I didn't get 2.2 either.
9 I came up with four point something on it when I
10 calculated this out and my personal opinion is this is a
11 very misleading situation because the well had been shut
12 in for several weeks before it was flowing and I think
13 this is an accumulation --

14 Q Accumulation of liquids?

15 A Yes, sir, I think it's an accumulation of distillate in
16 the casing and once the well is put on production, I think
17 that will reduce considerably.

18 Q And you'll get a higher GOR?

19 A Yes, sir.

20 Q Because even at 4000, that could be rather low GOR to be
21 trying to produce through the annulus.

22 A Yes, sir. Well, I don't think it will remain that way
23 at all. I think this will change considerably.

24 For example, the Morrow, the first 12 hours we
25 flowed the Morrow at about five million, it made 205

1 barrels of distillate and then since then, it's changed
2 back. It only makes about 100 barrels of distillate now
3 with about 10 or 11 million cubic feet --

4 Q You do have a connection for the Morrow?

5 A Yes, sir.

6 Q And you do have a connection for the Strawn, too, as soon
7 as this dual is approved?

8 A Yes, sir, that is correct. They have the meters set and
9 everything is tied in and ready to do.

10 Q Could you furnish me with a gas liquid test on this well
11 after 30 days production in the Strawn?

12 A Yes, sir, I surely could.

13 Q Sure would appreciate it.

14 Any further questions of Mr. Hillin?

15 (No response)

16 MR. NUTTER: He may be excused.

17 (Witness excused)

18 MR. NUTTER: Do you have anything further, Mr.
19 Stevens?

20 MR. STEVENS: Nothing further.

21 MR. NUTTER: Does anyone have anything to offer
22 in Case 5075?

23 (No response)

24 MR. NUTTER: We'll take the case under advisement.
25

1 STATE OF NEW MEXICO)
2) ss
3 COUNTY OF BERNALILLO)

4 I, Donna Keith, a Certified Shorthand Reporter,
5 in and for the County of Bernalillo, State of New Mexico, do
6 hereby certify that the foregoing and attached transcript of
7 Hearing before the New Mexico Oil Conservation Commission was
8 reported by me; and that the same is a true and correct
9 record of the said proceedings to the best of my knowledge,
10 skill and ability.

11 Donna Keith
12 CERTIFIED SHORTHAND REPORTER

13
14
15
16 I do hereby certify that the foregoing is
17 a complete record of the proceedings in
18 the Examiner hearing of Case No. 5075
19 heard by me on 10/17, 1973

20 Examiner
21 New Mexico Oil Conservation Commission
22
23
24
25

I N D E XWITNESSPAGE

R. N. HILLIN

Direct Examination by Mr. Stevens

3

Cross Examination by Mr. Nutter

11

E X H I B I T SAPPLICANT'SOFFEREDADMITTED

Exhibit 1

Land Map

11

11

Exhibit 2

Schematic Drawing

11

11

Exhibit 3

Application for
Multiple Completion

11

11

Exhibit 4

Packer setting
report

11

11

Exhibit 5

Packer leakage test

11

11

Exhibit 6

Letter

11

11

Exhibit 7

Flow Chart

11

11

Exhibit 8

Potential Test on
the Strawn

11

11

Exhibit 9

Electric Log

11

11



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

November 7, 1973

I. R. TRUJILLO
CHAIRMAN
LAND COMMISSIONER
ALEX J. ARMJO
MEMBER
STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

Mr. Donald G. Stevens
Attorney at Law
Post Office Box 1797
Santa Fe, New Mexico

Re: CASE NO. 5075
ORDER NO. R-4650
Applicant:
HILLIN PRODUCTION COMPANY

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC	X
Artesia OCC	X
Aztec OCC	

Other _____

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 5075
Order No. R-4650

APPLICATION OF HILLIN PRODUCTION
COMPANY FOR A DUAL COMPLETION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
October 17, 1973, at Santa Fe, New Mexico, before Examiner
Daniel S. Nutter.

NOW, on this 6th day of November, 1973, the Commission,
a quorum being present, 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 Commission has jurisdiction of this cause and the
subject matter thereof.

(2) That the applicant, Hillin Production Company, seeks
authority to complete its JCW State Com Well No. 1, located in
Unit C of Section 2, Township 20 South, Range 28 East, NMPM,
Eddy County, New Mexico, as a dual completion (conventional) to
produce gas from an undesignated Strawn Gas Pool and from the
Winchester-Morrow Gas Pool through the casing-tubing annulus and
tubing, respectively.

(3) That the mechanics of the proposed dual completion
are feasible and in accord with good conservation practices.

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Hillin Production Company, is
hereby authorized to complete its JCW State Com Well No. 1,
located in Unit C of Section 2, Township 20 South, Range 28 East,
NMPM, Eddy County, New Mexico, as a dual completion (conventional)
to produce gas from an undesignated Strawn Gas Pool and from the
Winchester-Morrow Gas Pool through the casing-tubing annulus
and tubing, respectively.

-2-

Case No. 5075

Order No. R-4650

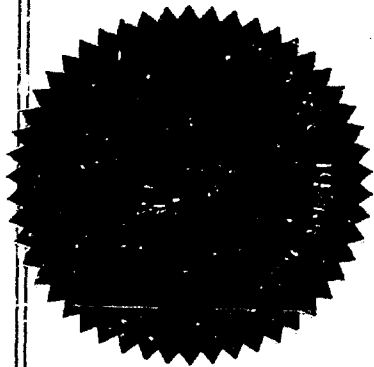
PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer-leakage tests upon completion and annually thereafter during the Annual Shut-In Pressure Test Period for the Winchester-Morrow Gas Pool.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



I. R. Trujillo
I. R. TRUJILLO, Chairman

Alex J. Armijs
ALEX J. ARMIJO, Member

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

S E A L

dr/

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 17, 1973

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

ALLOWABLE: (Continued from October 3, 1973, Examiner Hearing)

- (1) Consideration of the allowable production of gas for November, 1973, from seventeen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;
- (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for November, 1973.

CASE 5075: Application of Hillin Production Company for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its JCW State Com. Well No. 1 located in Unit C of Section 2, Township 20 South, Range 28 East, Eddy County, New Mexico, in such a manner as to produce gas from an undesignated Strawn gas pool and from the Winchester-Morrow Gas Pool through the casing tubing annulus and tubing, respectively.

CASE 5076: Application of David Fasken for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox location 1980 feet from the North line and 660 feet from the West line of Section 7, Township 18 South, Range 26 East, West Atoka-Morrow Gas Pool, Eddy County, New Mexico, the N/2 of said Section 7 to be dedicated to the well.

CASE 5077: Application of Texaco Inc. for downhole commingling and a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle in the wellbore production from the Skaggs-Glorieta and East Weir-Blinebry Pools in its C. H. Weir "B" Well No. 4 located in Unit I of Section 11, Township 20 South, Range 37 East, Lea County, New Mexico, and to dually complete said well in such a manner as to permit the production of the aforesaid commingled fluids and hydrocarbons from the East Weir-Tubb Oil Pool through parallel strings of tubing.

CASE 5078: Application of Franklin, Aston & Fair for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter its McIntyre Well No. 6-A, an old hole located 990 feet from the South line and 1650 feet from the East line of Section 20, Township 17 South, Range 30 East, Eddy County, New Mexico, in order to complete same as a Morrow gas well, the E/2 of said Section 20 to be dedicated to the well.

- CASE 5079: Application of May Petroleum Inc. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a proposed well to be drilled at a point 1650 feet from the South line and 1129 feet from the East line of Section 31, Township 11 South, Range 38 East, North Gladia-Devonian Pool, Lea County, New Mexico.
- CASE 5080: Application of Horizon Oil & Gas Company of Texas for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its State 28 Well No. 2 located in Unit K of Section 28, Township 17 South, Range 29 East, Eddy County, New Mexico, in such a manner as to permit the production of gas from the Grayburg-Morrow Gas Pool and an undesignated Atoka Gas Pool through parallel strings of tubing.
- CASE 5081: Application of Mesa Petroleum Company for a dual completion and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Skelly State Well No. 1 located in Unit I of Section 14, Township 16 South, Range 35 East, in such a manner as to produce oil from the North Shoe Bar-Wolfcamp Pool and gas from an undesignated Morrow gas pool through parallel strings of tubing. Applicant further seeks the promulgation of temporary special rules for said North Shoe Bar-Wolfcamp Pool, including a provision for 160-acre drilling and proration units.
- CASE 5082: Application of Mesa Petroleum Company for a dual completion, creation of a new oil pool, assignment of a discovery allowable, and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the North Shoe Bar-Strawn Pool for its Hillburn Well No. 1 located in Unit E of Section 13, Township 16 South, Range 35 East, Lea County, New Mexico, and the assignment of approximately 56,440 barrels of oil discovery allowable to said well; applicant also seeks approval for the dual completion of said well in such a manner as to permit the production of oil from the North Shoe Bar-Wolfcamp Pool and the North Shoe Bar-Strawn Pool through parallel strings of tubing; applicant further seeks the promulgation of temporary special rules for said pool, including a provision for 160-acre drilling and proration units.
- CASE 5083: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Blinebry-Paddock and Tubb production in the well-bore of its C. H. Lockhart Federal Well No. 3 located in Unit O of Section 18, Township 22 South, Range 38 East, Lea County, New Mexico.
- CASE 5084: Southeastern nomenclature case calling for the extension of certain pools in Lea and Roosevelt Counties, New Mexico:

(Case 5084 continued from page 2)

(a) Extend the Antelope Ridge-Atoka Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 34 EAST, NMPM
Section 2: S/2

(b) Extend the Antelope Ridge-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 34 EAST, NMPM
Section 2: S/2
Section 3: S/2
Section 4: S/2

(c) Extend the Bluit-San Andres Associated Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM
Section 5: SW/4

(d) Extend the EK Yates Seven Rivers-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 34 EAST, NMPM
Section 8: NW/4

(e) Extend the Hat Mesa-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 32 EAST, NMPM
Section 14: E/2

(f) Extend the Monument-Paddock Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPM
Section 16: S/2
Section 17: E/2

(g) Extend the South Salt Lake-Morrow Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM
Section 30: All

(h) Extend the Triple X-Delaware Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 32 EAST, NMPM
Section 12: NE/4

Examiner Hearing - Wednesday - October 17, 1973

Docket No. 29-73

-4-

(Case 5084 continued from page 3)

(1) Extend the Williams-Pennsylvanian Pool in Lea County, New Mexico,
to include therein:

TOWNSHIP 13 SOUTH, RANGE 32 EAST, NMPM
Section 29: NE/4

↑
10

DURHAMSTER

PENROE

1980

8 300 ST 41

320 A

Hill Prod. Co.

WILLIMSEN
+
UNDERWOOD

Cities
SERVICE

SEC. 2 - 205 - 38 E

Hill Prod. Co.

320 A

Cities SERVICE

EXAMINER NUTTER	
COMMISSION	
Opp.	1
ASE. No.	5075

↑

DERBYSTON

PENROE

1980

NEW ST. 411

320 A

HILLMAN PROD. CO.

WILLIMSON
+
UNDERWOOD

CITIES
SERVICE

SEC. 2 - 205 - 38 E

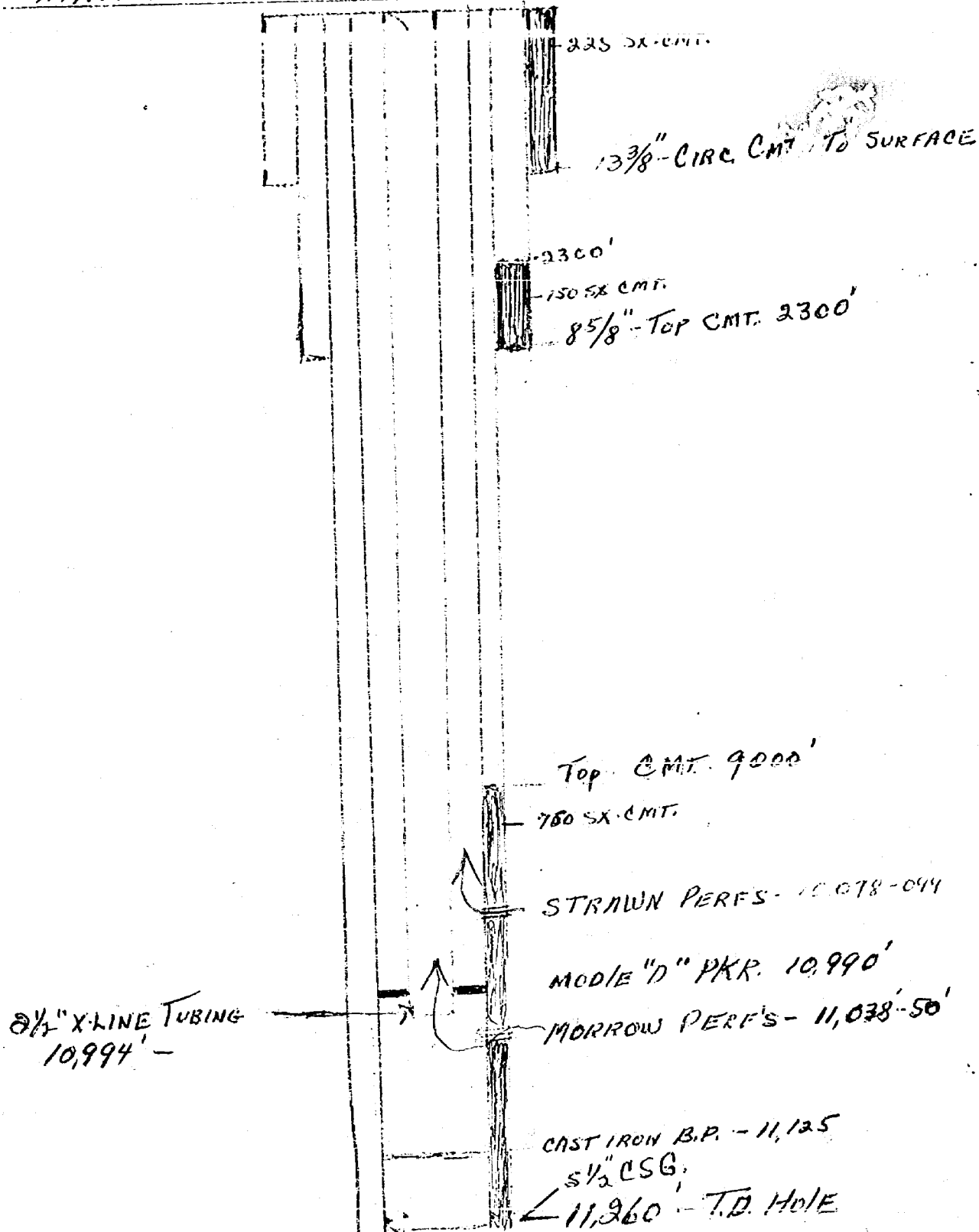
HILLMAN PROD. CO.

320 A

CITIES SERVICE

RECORD EXAMINER NUTTER	
COMMISSION	
App. <u>1</u>	
CASE NO. <u>5075</u>	

Hillman Production Co. - J.C. W. STATE COM. #1



<p>BEFORE THE STATE ENGINEER</p> <p>OR OTHER</p> <p>App. <u>2</u></p> <p>CASE NO. <u>5075</u></p>

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

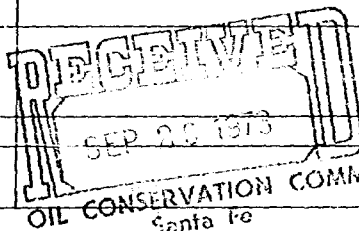
Form C-10.
5-1-61

Set for hearing Case 5075

Operator Hillin Production Company		County Eddy	Date Sept. 13, 1973
Address Box 2889, Odessa, Texas 79760		Lease JCW State Com.	Well No. 1
Location of Well C	Unit 2	Township 20S	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 X
2. If answer is yes, identify one such instance: Order No. _____; Operator Lease, and Well No.: _____

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation <i>Wells - Strawn</i>		<i>Winchester</i>	<i>Morrow Gas</i>
b. Top and Bottom of Pay Section (Perforations)	10,078 - 10,099		11,038 - 11,050
c. Type of production (Oil or Gas)	Gas		Gas
d. Method of Production (Flowing or Artificial Lift)	Flow		Flow



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

Yes	No	
<input checked="" type="checkbox"/>	<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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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.

Penroc Oil Company - Bank of Southwest Building - Midland, Texas

Cities Service Company - Vaughn Building - Midland, Texas

Dorchester Exploration Company - Vaughn Building - Midland, Texas

Williamson & Underwood - Vaughn Building - Midland, Texas

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES X NO _____. If answer is yes, give date of such notification Sept, 14, 1973.

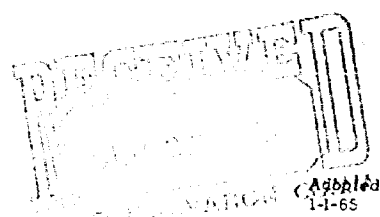
CERTIFICATE: I, the undersigned, state that I am the Operator of the Hillin Prod. Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the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

NEW MEXICO OIL CONSERVATION COMMISSION
App. 5075
3

R. H. Hillin
Signature
DOCKET
Date 10-5-73

*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.



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 15,, 1973

I personally supervised the setting of a Baker - Model "D"
Make & type of packer
in Hillin Production Company, J.C.W. State Com.,
Operator of well Lease name

Well no. 1 located in the Winchester Morrow field,
Eddy county, state of New Mexico, at a subsurface depth of
10,990 feet, said depth measurement having been furnished me by

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)
R. N. Hillin
(Name)
Operator
(Title)
Sept. 17, 1973
(Date)

APR 17 1973
5075

NEW MEXICO OIL CONSERVATION COMMISSION
SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

5075

Operator Hillin Production Company			Lease JCS State Com.			Well No. 1	
Location of Well	Unit C	Sec 2	Twp 20S	Rge 28E	County Eddy		
Name of Reservoir or Pool		Type of Prod (Oil or Gas)	Method of Prod Flow, Art Lift	Prod. Medium (Tbg or Csg)	Choke Size		
Upper Compl	SUTAWA		Gas	Flow	CSG.	Various	
Lower Compl	Morrow		Gas	Flow	TBG.	Various	

FLOW TEST NO. 1

Both zones shut-in at (hour, date): 5 p.m. August 28, 1973

Well opened at (hour, date): 9 a.m. Sept. 5, 1973

Indicate by (X) the zone producing..... X

Pressure at beginning of test..... 2845 3342

Stabilized? (Yes or No)..... Yes Yes

Maximum pressure during test..... 2845 3352

Minimum pressure during test..... 1917 3352

Pressure at conclusion of test..... 1917 3352

Pressure change during test (Maximum minus Minimum)..... 928 10

Was pressure change an increase or a decrease?..... Decrease Increase

Well closed at (hour, date): 1:30 p.m. Sept. 5, 1973 Total Time On Production 4 1/4 hours

Oil Production _____ Gas Production _____

During Test: 12 bbls; Grav. 55.1; During Test 50.20 MCF; GOR 2.209

Remarks Flow test #2 will be submitted when "Morrow" (lower) zone is put on production.

This will prevent waste of venting same.

FLOW TEST NO. 2

Well opened at (hour, date): _____

Indicate by (X) the zone producing..... _____

Pressure at beginning of test..... _____

Stabilized? (Yes or No)..... _____

Maximum pressure during test..... _____

Minimum pressure during test..... _____

Pressure at conclusion of test..... _____

Pressure change during test (Maximum minus Minimum)..... _____

Was pressure change an increase or a decrease?..... _____

Well closed at (hour, date) _____ Total time on Production _____

Oil Production _____ Gas Production _____

During Test: _____ bbls; Grav. _____; During Test _____ MCF; GOR _____

Remarks _____

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

Approved _____
New Mexico Oil Conservation Commission

Operator Hillin Production Co.
By R. H. Hillin

By _____ Title Operator

HILLIN PRODUCTION CO.

P. O. BOX 2800
MIDLAND, TEXAS 79701

AREA 015 027-0212

September 13, 1973

Penroc Oil Company
Building on the Southwest
Midland, Texas 79701

Williamson & Underwood
Vaughn Building
Midland, Texas 79701

Cities Service Oil Company
Vaughn Building
Midland, Texas 79701

Dorchester Exploration Co.
Vaughn Building
Midland, Texas 79701

Re: Dual Completion of JCW State #1, Eddy County, New Mexico

Gentlemen:

This letter is to inform you that we are making application to dually complete above captioned well from the Morrow (through tubing) and the Strawn (on the annulus).

Your signature in the space provided below will signify your acceptance and concurrence to this plan, as offset operators.

Thank you very much.

Yours very truly,

HILLIN PRODUCTION COMPANY

R. N. Hillin
R. N. Hillin

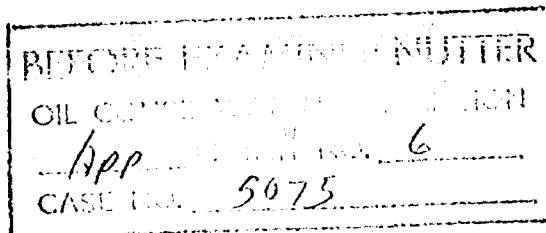
AGREED TO AND ACCEPTED THIS
13th DAY OF SEPTEMBER, 1973:

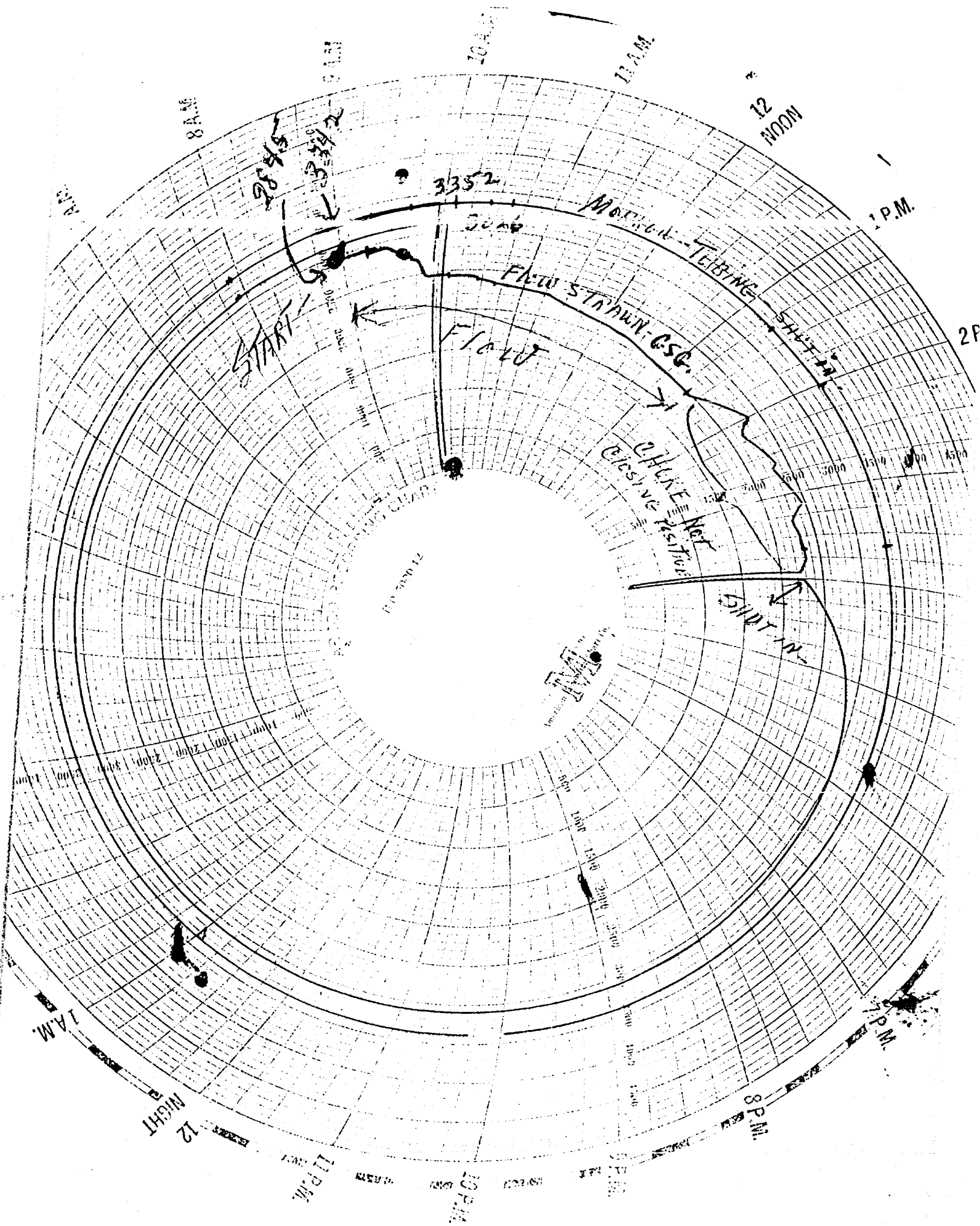
A. Bruce Singell
Penroc Oil Company

S. J. Hutto
Cities Service Oil Company

Williamson & Underwood
Williamson & Underwood

Dorchester Exploration Co.
Dorchester Exploration Co.





RECEIVED
 ON 10/10/12
 1 pp
 CASE NO. 5075

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 9-5-73	
Company Hillen Production				Connection None	
Pool Undesignated Winchester Morrow				Unit NA	
Completion Date 6-24-72		Perforations 11257		Elevation 3290	
Casing Size 5.5		Set At 11257		Casing Head JCW State	
Tubing Size 5.5		Set At 11257		Well No. 1	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				County Eddy	
Producing Thru Csg		Reservoir Temp. °F 175		Mean Annual Temp. °F 74	
Packor Set At 10090		Baro. Press. - P _g 13.2		State New Mexico	
L		H		Prover	
Gg		% CO ₂		Meter Run	
700				3	
FLG.					

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	3	x	0.625	185	23.0	66	2845	74			1 hr.
2.	3	x	0.625	290	35.5	72	2382	67			1 hr.
3.	3	x	0.625	430	52.5	73	2015	75			1 hr.
4.	3	x	0.625	460	87.0	71	1917	79			1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mhd
1.	1.850	67.52	198.2	.9943	1.195	1.023	152
2.	1.850	103.75	303.2	.9887	1.195	1.033	234
3.	1.850	152.54	443.2	.9877	1.195	1.052	350
4.	1.850	202.90	473.2	.9896	1.195	1.056	469
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.30	526	1.34	.955	2.209	
2.	.45	532	1.36	.937	55.1	
3.	.66	533	1.36	.904		
4.	.71	531	1.35	.896		
5.						

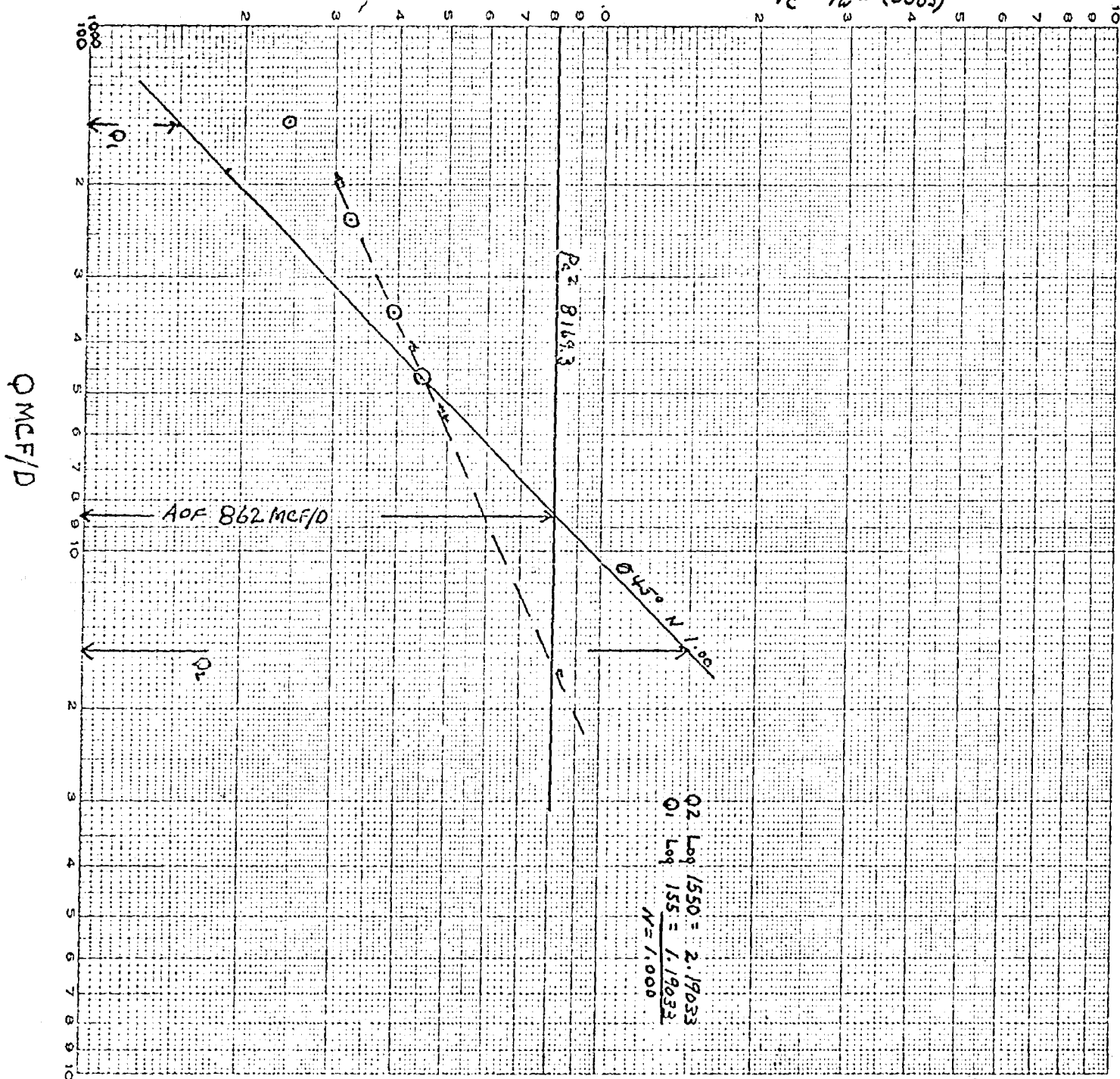
NO.	P _r	P _w	P _r ²	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} =$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$
1.			5737.0	2432.3		1.838	1.838
2.			4531.9	3204.4			
3.			4236.3	3933.0			
4.			3725.8	4443.5			
5.							

Absolute Open Flow 862 Mhd @ 15.025 Angle of Slope 45 Slope, n 1.000

Remarks:

Approved By: J. C. Roberts Conducted By: J. C. Roberts Calculated By: J. C. Roberts Checked By:

EUGENE DIETZGEN CO.
MADE IN U. S. A.

$$P_C^2 - P_w^2 \text{ (000's)}$$


WORKSHEET FOR CALCULATION OF ST. C COLUMN WELLHEAD PRESSURE (P_w)

C-1220
Revised 9-1-65

COMPANY HILLIN PROD LEASE JCW STATE STATE WELL NO. #1 DATE 9-10-73

LOCATION: Unit C Section ~ Township 20 Range 28

L 10078 H 10078 LH 1000 G 1118 1.54 % CO₂ _____ % N₂ _____ % H₂S _____

d 11.892 F_r 0017585 GH 17042 P_{cr} 668 T_{cr} 390
1st 2nd 3rd

LINE	1	2	1	2	1	2	1	2		
1 Q _m	.152	.152	.234	.234	.350	.350	.468	.468		
2 T _w (W.H. °R)	534	534	534	534	534	534	534	534		
3 T _g (B.H. °R)	634	634	634	634	634	634	634	634		
4 T = $\frac{(T_w + T_g)}{2}$	580	580	580	580	580	580	580	580		
5 Z (Est.)	.673	.846	.670	.832	.668	.812	.670	.798		
6 TZ	393.0	494.1	391.3	485.9	390.1	474.2	391.3	466.0		
7 GH/TZ	43.360	54.494	43.554	55.074	43.685	55.938	43.554	56.512		
8 e ^s (Table XIV)	5.084	3.646	5.121	3.726	5.146	3.848	5.121	3.741		
9 1-e ^s (Table XIV)	0.803	0.726	0.805	0.732	0.806	0.740	0.805	0.746		
10 P _i	2295.2	2395.2	2298.2	2328.2	2053.2	2056.2	1920.2	1930.2		
11 P _i ² /1000	5737.0	5737.0	4964.9	4964.9	4236.2	4236.2	3725.7	3725.7		
12 F _r (Table XV)	.0017585	.0017585	.0017585	.0017585	.0017585	.0017585	.0017585	.0017585		
13 F _c = F _r TZ	.6911	.8698	.6881	.8544	.6860	.8339	.6881	.8195		
14 F _c Q _m	.1051	.1321	.1610	.1999	.2401	.2919	.3227	.3544		
15 L/H (F _c Q _m) ²	.011036	.017440	.025923	.039975	.057650	.085154	.104137	.147728		
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	.0089	.0127	.0209	.0292	.0464	.0630	.0838	.1102		
17 P _w ² = P _i ² + F _w	5737.0	5737.0	4964.9	4964.9	4236.2	4236.3	3725.8	3725.8		
18 P _w ² = e ^s P _w ²	29164.4	20914.5	25423.8	18458.1	21200.9	16300.2	19078.5	14681.5		
19 P _s	5400.4	4573.2	5042.2	4300.9	4663.9	4037.7	4367.9	3831.6		
20 P = $\frac{(P_i + P_s)}{2}$	3897.8	3484.2	3635.2	3224.6	3362.6	3047.9	3149.0	2830.9		
21 P _r = (P/P _{cr})	5.84	5.21	5.44	4.89	5.00	4.56	4.71	4.31		
22 T _r = (T/T _{cr})	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48		
23 Z (Table XI)	.84	.820	.832	.812	.812	.791	.798	.784		

DRAFT

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 5075

Order No. R-4650

APPLICATION OF HILLIN PRODUCTION COMPANY
FOR A DUAL COMPLETION, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
October 17, 196⁷³, at Santa Fe, New Mexico, before Examiner
Daniel S. Nutter.

NOW, on this November day of ~~October~~, 1963, the Commission,
a quorum being present, 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 Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Hillin Production Company,
seeks authority to complete its JCW State Com
Well No. 1, located in Unit C of Section 2, Township
20 South, Range 28 East, NMPM, Eddy County, New
~~XXXXXX~~ Mexico, as a dual completion (conventional) ~~(combination)~~ ~~(tubingless)~~ to produce gas
from ~~the~~ an undesignated Strawn gas Pool through and from the
Winchester-Morrow Gas Pool through the casing-tubing annulus and
tubing, respectively.

(3) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Hillin Production Company, is hereby authorized to complete its JCW State Com Well No. 1, located in Unit C of Section 2, Township 20 ~~North~~ South, Range 28 East, NMPM, Eddy County, New Mexico, as a dual completion ^(conventional) ~~(combination)~~ ^{xxxxx} to produce gas ~~(tubingless)~~ from ~~the~~ an undesignated Strawn Gas Pool through and from the Winchester-Morrow Gas Pool through the casing-tubing annulus and tubing, respectively.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Commission 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} ~~Gas-Oil Ratio~~ Test Period for the Winchester-Morrow Gas Pool. ~~Deliverability~~

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

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