

Case No.

6561

Large

Exhibits

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico
13 June 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Amoco Production Com-
pany for directional drilling, Lea
County, New Mexico.

CASE
6561

BEFORE: Daniel S. Nutter

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 for the Division
State Land Office Building
Santa Fe, New Mexico 87503

For the Applicant:

Guy Buell, Esq.
Amoco Production Company
Post Office Box 3092
Houston, Texas 77001

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
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I N D E X

J. C. ALLEN

Direct Examination by Mr. Buell 4

Cross Examination by Mr. Nutter 9

E X H I B I T S

Applicant Exhibit One, Map 5

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MR. NUTTER: Call next Case 6561.

MR. PADILLA: Application of Amoco Production Company for directional drilling in Lea County, New Mexico.

MR. NUTTER: Call for appearances in this case.

MR. BUELL: For the Applicant, Amoco Production Company, my name is Guy Buell.

We have one witness, Mr. Allen.

MR. NUTTER: Are there any other appearances in this case?

(Witness sworn.)

MR. BUELL: Mr. Examiner, I might make a very brief opening statement. This is a very simple application.

We drilled a Morrow test in the south half of 21 at an orthodox location in Unit K. We drilled a well approximately 13,000 and it tested gas but it was noncommercial. So what we are asking to do here today is to directionally drill to the southeast to an orthodox location, bottom hole location, in the proration Unit O, and we have asked and received authority from the Conservation Division to drill ahead at our own risk. We can

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1 affect a savings, our testimony will show, by directionally
2 drilling to an orthodox location as opposed to skidding a
3 rig down into Unit O and drilling a well straight up.

4 MR. NUTTER: Fine.

6 J. C. ALLEN

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

10 DIRECT EXAMINATION

11 BY MR. BUELL:

12 Q Mr. Allen, would you state your name,
13 by whom you're employed, and in what capacity, and in what
14 location, please, sir?

15 A My name is James C. Allen. I'm employed
16 by Amoco Production Company as a staff petroleum engineer
17 in Houston, Texas.

18 Q Mr. Allen, have you testified before this
19 body on many previous occasions and are your qualifications
20 as a petroleum engineer a matter of public record?

21 A Yes, sir.

22 MR. BUELL: Any questions, Mr. Nutter?

23 MR. NUTTER: No, sir, he's considered
24 qualified.

25 Q (Mr. Buell continuing.) Mr. Allen, let

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1 me direct your attention first to what has been identified
2 as our Exhibit Number One. What is that exhibit?

3 A Exhibit Number One is a 9-section map
4 of the portion of the Townsend Morrow Gas Pool in Lea
5 County, New Mexico.

6 Q How have you highlighted on this exhibit
7 the south half of Section 21, which is the 320-acre gas
8 proration unit involved in this application?

9 A The 320 acres are highlighted by a heavy
10 red border, this being the Amoco State "HC" Well No. 1.

11 Q And how have you identified the surface
12 location of the State "HC" No. 1 Well?

13 A It's also highlighted with a red arrow.

14 Q All right, sir, and have you identified
15 in any way our bottom hole location target for this
16 directionally drilled and controlled well?

17 A Yes, sir, I have. This is shown as a
18 330-foot square in Unit O of Section 21.

19 Q And our intention is to bottom the State
20 "HC" No. 1 within that square, which would mean an orthodox
21 bottom hole location?

22 A That is correct.

23 Q All right, sir, let's put in the record
24 a little history of the "HC" No. 1.

25 First, what type of casing do we now have

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1 in that well?

2 A All right, sir, we have 13-3/8ths inch
3 casing set at 408 feet, the cement circulated to surface,
4 9-5/8ths inch casing is set at 5,203 feet, with the top of
5 cement based on temperature survey at 1575 feet.

6 Q And what is the approximate depth of the
7 straight hole of the "HC" No. 1?

8 A We reached a total depth of 13,001 feet.

9 Q And was I correct in my opening statement,
10 did we test gas at this location but not in commercial
11 quantity?

12 A Yes, sir, we did. We had a very small
13 gas, had a show of gas, I'd really call it, of about 50
14 Mcf a day.

15 Q All right, sir, as I pointed out in my
16 statement, we are right now directionally drilling this
17 well, are we not?

18 A That is correct.

19 Q How far up the hole did we come to kick
20 off on our direction drilling?

21 A We kicked off at a depth of 8400 feet.

22 Q Was that on top of or near the top of the
23 uppermost cement plug that was set in the uncased portion
24 of the well?

25 A Yes, sir, approximately 40 feet above the

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1 top of the cement plug.

2 Q Are there any other deeper cement plugs
3 in the well now?

4 A Yes, sir, I believe there are.

5 There's two other -- well, there's a
6 cement plug at 12,200 to 12,400 feet. There's another plug
7 at 11,740 to 11,940; a plug at 9,725 to 9875; and then the
8 uppermost plug being at 8440 to 8900 feet.

9 Q And then we kicked off right off the top
10 of that.

11 Do you have any idea at this time about
12 where we are in our directional drilling?

13 A Yes, sir. As of yesterday morning we
14 were at a measured depth of 9,382 feet. We were 44.7 feet
15 south and 80.7 feet east of the surface location. We were
16 going in a direction of south 51 degrees east, or towards
17 the target area.

18 Q So at least we are kicked off and headed
19 in a direction of our target area, an orthodox location in
20 the Unit O?

21 A Yes, sir.

22 Q In your opinion is the condition of the
23 State "HC" No. 1, both the cased and uncased portion of
24 that hole in excellent condition to support a directional
25 drilling effort?

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1 A. Yes, sir, it is.

2 Q. Approximately how much do we save, Mr.

3 Allen, by this program of directionally drilling as we are

4 now, as opposed to skidding a rig over and drilling a

5 straight up well in Unit O?

6 A. Estimated differential cost will result

7 in a savings of \$265,500.

8 Q. Over a quarter of a million dollars?

9 A. Yes, sir.

10 Q. Certainly, then, the approval of this

11 application will prevent economic waste?

12 A. That is correct.

13 Q. Do you anticipate any difficulty in us

14 achieving our objective of bottoming this well within our

15 target area?

16 A. No, sir.

17 Q. Do you have anything else you'd care to

18 add at this time, Mr. Allen?

19 A. No, sir, I don't believe I do.

20 MR. BUELL: May it please the Examiner,

21 that's all we have by way of direct.

22 I would like to formally offer our Ex-

23 hibit One.

24 MR. NUTTER: Amoco Exhibit One will be

25 admitted in evidence.

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CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Allen, your target area as depicted on Exhibit One is a square, and you mentioned that it was a 330-foot square.

Now the application from Amoco Production Company for the hearing simply stated that they wished a target, being 2310 from the east line and 990 from the south line, and we, when we advertised the case, gave you some latitude there and advertised it as being a target within 100 feet of that point. So, actually, the target area that has been advertised here today would be a 200-foot diameter circle.

A Yes, sir.

Q Around the point rather than a 330-foot square.

A Yes, sir.

Q Now, can you confine your accuracy to the degree that you'd hit the target that's been advertised?

A Yes, sir, I believe we can. I think I may have been misleading. We asked for an orthodox location and then we gave the northwest corner of the target area, and I think that was misleading in our letter of

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1 application. What we were really trying to do was just to
2 tie down the location of that 330-foot square, but I --
3 I don't --

4 MR. BUELL: May it please the Examiner,
5 I picked up that discrepancy in the docket notice. In my
6 opinion, I think it's sufficiently broad for you to issue
7 an order approving a bottom hole location at an orthodox
8 location.

9 MR. NUTTER: Within this target area
10 that's been advertised.

11 MR. BUELL: I think within that target
12 area that's been advertised or any orthodox location in
13 Unit O.

14 The Division is going to have a lot more
15 control over this bottom hole location than if we had
16 drilled a well straight up at a surface orthodox location.

17 MR. NUTTER: I realize that.

18 MR. BUELL: We're going to know precisely
19 where our bottom hole is.

20 MR. NUTTER: I hope.

21 Q Yes, sir, and you are conducting surveys
22 on the way down to find out where you are, obviously.

23 A Yes, yes, sir, we are.

24 Q And you'll survey the well after drilling
25 is completed.

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1 A That is correct, and surveyed it prior
2 to the kickoff, also.

3 Q Okay. Now, you mentioned that you were
4 44 feet south and 80 feet east. Is that of the surface
5 location or of the kickoff point?

6 A Surface location.

7 Q Okay.

8 A We do have the bottom location of the
9 kickoff, also, if you would like that.

10 Q Well, we'll get that on survey later.

11 A Yes, sir.

12 MR. NUTTER: Are there any further ques-
13 tions of Mr. Allen or Mr. Buell?

14 Does anyone have anything they wish to
15 offer in Case Number 6561? The witness may be excused,
16 and we'll take the case under advisement.

17 MR. BUELL: Thank you, Mr. Examiner.

18
19 (Hearing concluded.)
20
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24
25

REPORTER'S CERTIFICATE

I SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6746, heard by me on 6/13/1979.

 Examiner
Oil Conservation Division

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico
13 June 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Amoco Production Com-) CASE
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County, New Mexico.)

BEFORE: Daniel S. Nutter

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 for the Division
State Land Office Building
Santa Fe, New Mexico 87503

For the Applicant: Guy Buell, Esq.
Amoco Production Company
Post Office Box 3092
Houston, Texas 77001

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I N D E X

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Direct Examination by Mr. Buell 4

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E X H I B I T S

Applicant Exhibit One, Map 5

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1 MR. NUTTER: Call next Case 6561.

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4 New Mexico.

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8 Production Company, my name is Guy Buell.

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13 (Witness sworn.)

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16 a very brief opening statement. This is a very simple

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19 half of 21 at an orthodox location in Unit K. We drilled

20 a well approximately 13,000 and it tested gas but it was

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25 tion Division to drill ahead at our own risk. We can

1 affect a savings, our testimony will show, by directionally
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3 rig down into Unit O and drilling a well straight up.

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25 Q (Mr. Buell continuing.) Mr. Allen, let

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2 A. All right, sir, we have 13-3/8ths inch
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1 A. Yes, sir, it is.

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3 Allen, by this program of directionally drilling as we are

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CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Allen, your target area as depicted on Exhibit One is a square, and you mentioned that it was a 330-foot square.

Now the application from Amoco Production Company for the hearing simply stated that they wished a target, being 2310 from the east line and 990 from the south line, and we, when we advertised the case, gave you some latitude there and advertised it as being a target within 100 feet of that point. So, actually, the target area that has been advertised here today would be a 200-foot diameter circle.

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1 application. What we were really trying to do was just to
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4 MR. BUELL: May it please the Examiner,
5 I picked up that discrepancy in the docket notice. I my
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8 location.

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10 that's been advertised.

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15 control over this bottom hole location than if we had
16 drilled a well straight up at a surface orthodox location.

17 MR. NUTTER: I realize that.

18 MR. BUELL: We're going to know precisely
19 where our bottom hole is.

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21 Q. Yes, sir, and you are conducting surveys
22 on the way down to find out where you are, obviously.

23 A. Yes, yes, sir, we are.

24 Q. And you'll survey the well after drilling
25 is completed.

1 A. That is correct, and surveyed it prior
2 to the kickoff, also.

3 Q Okay. Now, you mentioned that you were
4 44 feet south and 80 feet east. Is that of the surface
5 location or of the kickoff point?

6 A. Surface location.

7 Q Okay.

8 A. We do have the bottom location of the
9 kickoff, also, if you would like that.

10 Q Well, we'll get that on survey later.

11 A. Yes, sir.

12 MR. NUTTER: Are there any further ques-
13 tions of Mr. Allen or Mr. Buell?

14 Does anyone have anything they wish to
15 offer in Case Number 6561? The witness may be excused,
16 and we'll take the case under advisement.

17 MR. BUELL: Thank you, Mr. Examiner.

18
19 (Hearing concluded.)
20
21
22
23
24
25

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3080 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6561 heard by me on 6/13 1979.
[Signature] Examiner
Oil Conservation Division

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CERTIFIED SHORTHAND REPORTER
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Santa Fe, New Mexico 87501

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. 6561
Order No. R-6036

APPLICATION OF AMOCO PRODUCTION
COMPANY FOR DIRECTIONAL DRILLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 13, 1979,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 26th day of June, 1979, 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, Amoco Production Company, seeks
approval for the directional drilling of its State "HC" Well
No. 1, the surface location of which is 1980 feet from the South
line and 1980 feet from the West line of Section 21, Township 16
South, Range 35 East, Townsend Field, to a bottom hole location
within 100 feet of a point 990 feet from the South line and 2310
feet from the East line of said Section 21, the S/2 of said
Section 21 to be dedicated to the well.

(3) That said well was drilled vertically to a total depth
of 13,001 feet, and encountered gas in the Morrow formation but
not in commercial quantities.

(4) That the applicant proposes to plug said well back to
a depth of 8400 feet, set a whipstock, and directionally drill
in a southeasterly direction, bottoming said well in the Morrow
formation as described above.

-2-

Case No. 6561
Order No. R-6036

(5) That the applicant should be required to determine the subsurface location of the kick-off point prior to directional drilling, and to determine the subsurface location of the bottom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said well is to be completed as a producing well.

(6) That the aforesaid directional drilling, if accomplished in accordance with the above Findings, may result in the recovery of otherwise unrecoverable gas, thereby preventing waste, will not impair but will protect correlative rights, and should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amoco Production Company, is hereby authorized to directionally drill its State "HC" Well No. 1, the surface location of which is 1980 feet from the South line and 1980 feet from the West line of Section 21, Township 16 South, Range 35 East, Townsend Field, to a bottom hole location within 100 feet of a point 990 feet from the South line and 2310 feet from the East line of said Section 21, the S/2 of said Section 21 to be dedicated to the well.

PROVIDED HOWEVER, that subsequent to the above-described directional drilling, should said well be a producer, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the kick-off point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Division's Hobbs District Office of the date and time said survey is to be commenced.

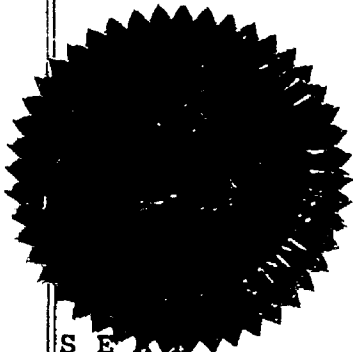
(2) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depths in addition to measured depths.

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

-3-

Case No. 6561
Order No. R-6036

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



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

S E R

fd/

ATWOOD, MALONE, MANN & COOTER

A PROFESSIONAL ASSOCIATION

LAWYERS

JEFF D. ATWOOD [1883-1960]
ROSS L. MALONE [1910-1974]

P. O. DRAWER 700
SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO 88201
[505] 622-6221

RECEIVED
JUN 7 - 1979
OIL CONSERVATION DIVISION
SANTA FE
ROSS L. MALONE
RUSSELL L. MANN
PAUL J. COOTER
BOB F. TUNNEY
JOHN W. BASSETT
ROBERT E. SABIN
BRIAN W. COPPLE
RANDAL W. ROBERTS
STEVEN L. BELL

June 6, 1979

Mr. Joe Ramey
Secretary Director
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: Examiner Hearing - Wednesday, June 13, 1979
Cause No. 6561

Dear Mr. Ramey:

We would appreciate your filing the enclosed
Entry of Appearance for Amoco Production Company in Cause
No. 6561.

Your assistance is greatly appreciated.

Very truly yours,


Charles F. Malone

CFM:sgs
Enc.

cc: Guy Buell, Esquire
w/enc.



BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION)
OF AMOCO PRODUCTION COMPANY FOR)
DIRECTIONAL DRILLING, LEA COUNTY,)
NEW MEXICO.) No. 6561

ENTRY OF APPEARANCE

The undersigned hereby enter their appearance on
behalf of Amoco Production Company with Guy Buell and Richard
Merrill of Houston, Texas.

ATWOOD, MALONE, MANN & COOTER, P.A.

By Charles Malone
Post Office Drawer 700
Roswell, New Mexico 88201

Dockets Nos. 24-79 and 25-79 are tentatively set for hearing on June 27 and July 11, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - WEDNESDAY - JUNE 6, 1979

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6495: (DE NOVO)

Application of Amax Chemical Corporation for the amendment of Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-111-A to extend the boundaries of the Potash-Oil Area by the inclusion of certain lands in Sections 23 and 24, Township 19 South, Range 29 East, Sections 1, 4, 5, 6, 7, 11, 12, 13, 14, 19, 20, 23, 24, and 29, Township 19 South, Range 30 East, and Sections 7, 8, 17, 18, and 19, Township 19 South, Range 31 East, all in Eddy County, New Mexico.

Upon application of Amax Chemical Corporation this case will be heard De Novo pursuant to the provisions of Rule 1220.

Docket No. 23-79

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 13, 1979

9 A.M. - OIL CONSERVATION DIVISION 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: (1) Consideration of the allowable production of gas for July, 1979, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for July, 1979, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6560: Application of Exxon Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (combination) of its "AB" State Well No. 4 located in Unit A of Section 16, Township 24 South, Range 37 East, to produce gas from the Langlie Mattix Pool and oil from the Fowler-Upper Yeso Pool, through parallel strings of casing cemented in a common well bore.

CASE 6561: Application of Amoco Production Company for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, proposes to directionally drill its State "HC" Well No. 1 located 1980 feet from the South and West lines of Section 21, Township 16 South, Range 35 East, Townsend Field, to a bottom hole location within 100 feet of a point 990 feet from the South line and 2310 feet from the East line of said Section 21, the S/2 of said Section 21 to be dedicated to the well.

CASE 6562: Application of Orla Petco, Inc. for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Ramsey Sand of the Bell Canyon formation through the open hole interval from 2498 feet to 2508 feet in its Courley-Federal Well No. 4 located in Unit J of Section 31, Township 22 South, Range 28 East, Herradura Bend-Delaware Pool.

CASE 6563: Application of Roy L. McKay for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for his North Woolworth Ranch Unit Area, comprising 1,280 acres, more or less, of State lands in Township 23 South, Range 35 East.

CASE 6564: Application of Herndon Oil & Gas Co. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its O. A. Woody Well No. 1 in the center of Unit E, Section 35, Township 16 South, Range 38 East, Knowles-Devonian Pool.

CASE 6565: Application of Lewis B. Burleson, Inc. for compulsory pooling, a non-standard gas proration unit, and an unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Gas Pool underlying the W/2 SE/4 of Section 20, Township 25 South, Range 37 East, to form an 80-acre non-standard gas proration unit to be dedicated to a well to be drilled at an unorthodox location 1650 feet from the South and East lines of said Section 20. 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

- CASE 6566: Application of Lewis B. Burleson, Inc. for an unorthodox well location and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the SW/4 of Section 10, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to a well to be drilled 2310 feet from the South and West lines of said Section 10.
- CASE 6567: Application of Mewbourne Oil Company for an unorthodox well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State 25 Com Well No. 1 660 feet from the South line and 1650 feet from the West line of Section 25, Township 14 South, Range 27 East, Buffalo Valley-Pennsylvanian Gas Pool, the S/2 of said Section 25 to be dedicated to the well.
- CASE 6568: Application of Dallas McCasland for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well spacing requirements and a finding that the drilling of his Woolworth Well No. 5 located in Unit P of Section 28, Township 24 South, Range 37 East, Jalmat Gas Pool, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.
- CASE 6569: Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Lockhart A-17 Well No. 2 located in Unit I of Section 17, Township 21 South, Range 37 East, to produce gas from the Eumont Gas Pool through the casing-tubing annulus and oil from the Blinebry Oil and Gas Pool through tubing.
- CASE 6570: Application of Continental Oil Company for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 228-acre non-standard gas proration unit comprising the SW/4 and S/2.SE/4 of Section 18, Township 21 South, Range 36 East, Eumont Gas Pool, to be simultaneously dedicated to applicant's Lockhart A-18 Wells Nos. 2, 3, and 4, located in Units O, K, and M, respectively, of said Section 18.
- CASE 6571: Application of Continental Oil Company for vertical pool limit redefinition, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order extending the vertical limits of the Langlie Mattix Pool to include the lowermost 165 feet of the Seven Rivers formation and the concomitant contraction of the vertical limits of the Jalmat Gas Pool underlying the following described lands: SW/4 W/2 SE/4 and SE/4 SE/4 of Section 35, Township 23 South, Range 36 East; and NW/4, W/2 NE/4, and SE/4 NE/4 of Section 1, Township 24 South, Range 36 East.
- CASE 6537: (Continued from May 9, 1979, Examiner Hearing)
Application of Harper Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its West Ranger Lake Unit Area, comprising 1,120 acres, more or less, of State lands in Township 12 South, Range 34 East, Lea County, New Mexico.
- CASE 6553: (Continued from May 23, 1979, Examiner Hearing)
Application of The Atlantic Richfield Company for approval of infill drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the Division waived existing well-spacing requirements and found that the drilling of additional wells was necessary to effectively and efficiently drain those portions of the proration units in the Empire Abo Unit located in Townships 17 and 18 South, Ranges 27, 28 and 29 East, which could not be so drained by the existing wells.
- CASE 6572: Application of ARCO Oil and Gas Company to drill a horizontal drainhole, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval to drill and complete its Empire Abo Unit Well No. K-142, located in Unit K of Section 2, Township 18 South, Range 27 East, Empire-Abo Pool, with a single horizontal drainhole of about 200 feet in length in the Abo formation.
- CASE 6573: Application of Mesa Petroleum Company for directional drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the directional drilling of its Well No. 7 in the Nash Unit, the surface location of which would be 685 feet from the North line and 1295 feet from the West line of Section 18, to be vertically drilled to approximately 7,000 feet, and then directionally drilled to a bottom hole location in the Morrow formation within 400 feet of a point 1315 feet from the South line and 1320 feet from the West line of Section 7, all in Township 23 South, Range 30 East.
- CASE 6574: Application of Texas Oil & Gas Corp. for an unorthodox gas well location and compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp through Morrow formations underlying the E/2 of Section 6, Township 17 South, Range 35 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South and East lines of said Section 6. 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. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6535: (Continued from May 23, 1979, Examiner Hearing)

Application of Torreon Oil Company for a waterflood project, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the San Luis-Mesaverde Pool by the injection of water into the Menefee formation through two wells located in Section 21, Township 18 North, Range 3 West, Sandoval County, New Mexico.

CASE 6575: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, contracting the vertical limits, and extending the horizontal limits of certain pools in Eddy, Lea, and Roosevelt Counties, New Mexico:

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Cass Draw-Wolfcamp Gas Pool. The discovery well is Black River Corporation Miller Com Well No. 1 located in Unit C of Section 10, Township 23 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM
Section 10: N/2

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Abo production and designated as the Runyan Ranch-Abo Gas Pool. The discovery well is Mesa Petroleum Company Runyan Federal Com Well No. 1 located in Unit E of Section 17, Township 19 South, Range 23 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 23 EAST, NMPM
Section 17: NW/4

(c) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Runyan Ranch-Morrow Gas Pool. The discovery well is Mesa Petroleum Company Gardner State Well No. 1 located in Unit K of Section 8, Township 19 South, Range 23 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 23 EAST, NMPM
Section 8: W/2

(d) EXTEND the Austin-Mississippian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 36 EAST, NMPM
Section 16: SE/4
Section 17: NE/4

(e) EXTEND the Avalon-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 26 EAST, NMPM
Section 28: N/2

(f) EXTEND the Avalon-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 26 EAST, NMPM
Section 21: SW/4
Section 28: N/2

(g) EXTEND the Buffalo-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM
Section 6: N/2

(h) EXTEND the Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 12: S/2
Section 13: N/2

(i) EXTEND the Chaveroo-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 34: SW/4

(j) EXTEND the South Culebra Bluff-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 22: N/2
Section 35: N/2

- (k) EXTEND the Diamond Mound-Atoka Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM
Section 12: N/2
- (l) EXTEND the Dublin Ranch-Morrow Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM
Section 21: E/2
- (m) EXTEND the East Eagle Creek Atoka-Morrow Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM
Section 13: S/2
- (n) EXTEND the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM
Section 19: S/2
- (o) EXTEND the Eumont Gas Pool in Lea County, New Mexico, to include therein:
TOWNSHIP 20 SOUTH, RANGE 36 EAST, NMPM
Section 32: W/2
- (p) EXTEND the Hardy-Blinebry Pool in Lea County, New Mexico, to include therein:
TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
Section 2: E/2 SE/4 and SW/4 SE/4
- (q) EXTEND the Herradura Bend-Delaware Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 5: E/2 NW/4
- (r) EXTEND the Indian Flats-Morrow Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM
Section 25: S/2
Section 36: W/2
- (s) EXTEND the Kennedy Farms-Morrow Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM
Section 10: S/2
Section 11: S/2
Section 16: E/2
- (t) EXTEND the East Lake-Morrow Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM
Section 32: W/2
- (u) EXTEND the Logan Draw-Cisco Canyon Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM
Section 28: W/2
- (v) EXTEND the West Malaga-Morrow Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 24 SOUTH, RANGE 28 EAST, NMPM
Section 16: N/2
- (w) EXTEND the Penasco Draw-Morrow Gas Pool in Eddy County, New Mexico, to include therein:
TOWNSHIP 18 SOUTH, RANGE 24 EAST, NMPM
Section 25: N/2
- (x) EXTEND the South Peterson-Fusselman Pool in Roosevelt County, New Mexico, to include therein:
TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM
Section 31: NW/4

(y) CONTRACT the vertical limits of the Shoe Bar-Pennsylvanian Gas Pool in Lea County, New Mexico, to the Atoka formation only and redesignate said pool as the Shoe Bar-Atoka Gas Pool, and extend the horizontal limits of said pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM
Section 34: SW/4

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
Section 3: N/2

(z) EXTEND the Teague-Abc Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 22: S/2
Section 27: NE/4

(aa) EXTEND the Todd-Wolfcamp Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 35 EAST, NMPM
Section 22: NE/4

(bb) EXTEND the Tomahawk-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 30: W/2

(cc) EXTEND the West Tonto-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM
Section 7: NW/4

(dd) EXTEND the Turkey Track-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM
Section 14: W/2
Section 15: E/2
Section 23: All
Section 24: W/2

(ee) EXTEND the Wantz-Granite Wash Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
Section 3: SE/4
Section 10: NE/4



Amoco Production Company

Houston Region
500 Jefferson Building
Post Office Box 3092
Houston, Texas 77001

J. R. Barnett
Regional Engineering
Manager

May 25, 1979

File: TBM-986.51NM-3290

Re: Request for Hearing to Directionally
Drill the Amoco State "HC" Well No. 1
S/2 Sec. 21, T-16-S, R-35-E
Lea County, New Mexico
Townsend (Morrow) Gas Pool

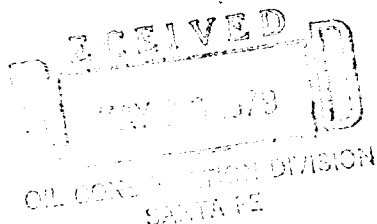
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey (3)

Gentlemen:

Confirming our telephone request to Mr. Richard L. Stamets, Amoco Production Company requests a hearing for approval to directionally drill the State "HC" Well No. 1. The surface location is 1980' FSL and 1980' FWL of Sec 21, T-16-S, R-35-E, Lea County, New Mexico. Target area for the bottom hole location is an orthodox location in Unit "0" of Section 21. The S/2 of Section 21 is dedicated to the subject well.

The State "HC" Well No. 1 has been drilled to a TD of 12,870' as of 5-24-79. Proposed plans are to plug back to 9500' and intentionally deviate in a southeasterly direction to an orthodox location in Unit "0" of Section 21 with the NW corner of the target area being 2310' FEL and 990' FSL of Section 21. Horizontal displacement will be approximately 1400'-1500'.



State of New Mexico
Energy and Minerals Department
Attn: Mr. Joe D. Ramey (3)

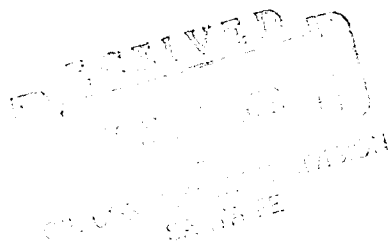
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Page 2
May 25, 1979
Amoco State "HC" Well No. 1
S/2 Sec. 21, T-16-S, R-35-E

Amoco Production Company requests temporary approval to proceed at our own risk pending decision of the Oil Conservation Division after the above requested hearing. This request is made since a drilling rig is on location and anticipated producing horizons at the current permitted location appear to be non-commercial.

A map of the area is attached. Please direct any questions to Mr. Jim Allen, telephone (713) 652-5497, or Mr. Jim Pease, telephone (713) 652-5461.

J. R. Barnett
JCA:jf





Amoco Production Company

Houston Region
600 Jefferson Building
Post Office Box 3092
Houston, Texas 77001

J. R. Barnett
Regional Engineering
Manager

May 25, 1979

File: TBM-986.51NM-3290

Re: Request for Hearing to Directionally
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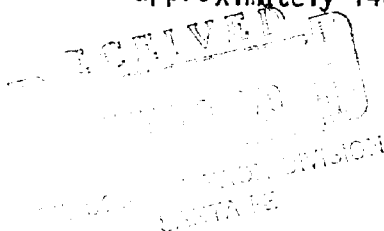
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State of New Mexico
Energy and Minerals Department
Attn: Mr. Joe D. Ramey (3)

File: TBM-986.51NM-3290

Page 2
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S/2 Sec. 21, T-16-S, R-35-E

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JCA:jf



Amoco Production Company

Houston Region
600 Jefferson Building
Post Office Box 3092
Houston, Texas 77001

J. R. Barnett
Regional Engineering
Manager

May 25, 1979

File: TBM-986.51NM-3290

Re: Request for Hearing to Directionally
Drill the Amoco State "HC" Well No. 1
S/2 Sec. 21, T-16-S, R-35-E
Lea County, New Mexico
Townsend (Morrow) Gas Pool

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

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The State "HC" Well No. 1 has been drilled to a TD of 12,870' as of 5-24-79. Proposed plans are to plug back to 9500' and intentionally deviate in a southeasterly direction to an orthodox location in Unit "O" of Section 21 with the NW corner of the target area being 2310' FEL and 990' FSL of Section 21. Horizontal displacement will be approximately 1400'-1500'.

State of New Mexico
Energy and Minerals Department
Attn: Mr. Joe D. Ramey (3)

Page 2
May 25, 1979
Amoco State "HC" Well No. 1
S/2 Sec. 21, T-16-S, R-35-E

File: TBM-986.51NM-3290

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J. R. Barnett
JCA:jf

Phoned in by Jim Allen - Houston
713 652 5497

Application Amco, Production Co.
for Directional Drilling, ~~Lea~~ Townsend
Field, Lea County, New Mexico. Applicant
proposes to plug back its State "H.C."
Well No 1 located 1980 S&W • 21-7165-R35C
to a depth of approx 9500' and to
directionally ~~to~~ drill to a bottom hole
location within 100 feet of a point
990 FSL 2310 FEL of said Section 21.
The S/2 of said section 21 is dedicated.

RL

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. 6561

Order No. A-6036

APPLICATION OF AMOCO PRODUCTION
COMPANY FOR DIRECTIONAL DRILLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 13,
19 79, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of June, 19 79, 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, Amoco Production Company, seeks approval
for the directional drilling of its State "HC" Well No. 1, ^{the surface location of} ~~located~~
1980 feet from the South line and 1980 feet from the West line of

which is

Section 21, Township 16 South, Range 35 East, Townsend Field, to a bottom hole location within 100 feet of a point 990 feet from the South line and 2310 feet from the East line of said Section 21, the S/2 of said Section 21 to be dedicated to the well.

(5) That the applicant should be required to determine the ~~the kick-off point prior to directional drilling, and to determine the subsurface location of the~~ subsurface location of the bottom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said well is to be completed as a producing well.

(6)
IT IS THEREFORE ORDERED:

(1) That the applicant, Amoco Production Company, is hereby authorized to directionally drill its State "HC" Well No. 1, ~~the surface location of which is~~ located 1980 feet from the South line and 1980 feet from the West line of Section 21, Township 16 South, Range 35 East, Townsend Field, to a bottom hole location within 100 feet of a point 990 feet from the South line and 2310 feet from the East line of said Section 21, the S/2 of said Section 21 to be dedicated to the well.

PROVIDED HOWEVER, that subsequent to the above-described directional drilling, should said well be a producer, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the ~~surface~~ ^{kick-off point} with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Division's Hobbs District Office of the date and time said survey is to be commenced.

(3) That said well was drilled ^{vertically} to a total depth of 13,001 feet, and encountered gas in the Morrow formation but not in commercial quantities.

depth of
(4) That the applicant proposes to plug said well back to a 8400 feet, set a whipstock, and directionally drill in a southeasterly direction, bottoming said well in the Morrow formation as described above.

(6) That the aforesaid directional drilling, if accomplished in accordance with the above findings, may result in the recovery of otherwise unrecoverable gas, thereby preventing waste, will not impair but will protect correlative rights, and should be approved.

(2) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depths in addition to measured depths.

(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.