

CASE 6629: HILLIARD OIL & GAS, INC. FOR
DIRECTIONAL DRILLING, LEA COUNTY, NEW
MEXICO

CASE NO.

6629

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.

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

EXAMINER HEARING

IN THE MATTER OF:

Application of Hilliard Oil & Gas,
Inc. for directional drilling, Lea
County, New Mexico.

CASE
6629

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
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Legal Counsel for the Division
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Santa Fe, New Mexico 87503

For the Applicant:

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I N D E X

EDWARD DAVID

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1 MR. NUTTER: We'll call next Case Number
2 6629.

3 MR. PADILLA: Application of Hilliard Oil
4 and Gas, Inc., for directional drilling, Lea County, New
5 Mexico.

6 MR. KELLAHIN: Tom Kellahin of Santa Fe,
7 New Mexico, appearing on behalf of the applicant, and I have
8 one witness.

9
10 (Witness sworn.)

11
12 EDWARD DAVID
13 being called as a witness and having been duly sworn upon
14 his oath, testified as follows, to-wit:

15
16 DIRECT EXAMINATION

17 BY MR. KELLAHIN:

18 Q Mr. David, would you please state your
19 name, by whom you're employed, and in what capacity?

20 A Edward David. I'm a consulting geologist
21 from Roswell, New Mexico, and I'm employed by Hilliard Oil
22 and Gas.

23 Q Mr. David, have you previously testified
24 before the Oil Conservation Division and had your qualifi-
25 cations as an expert geologist accepted and made a matter of

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1 record?

2 A. Yes, I have testified and they were ac-
3 cepted.

4 MR. KELLAHIN: We tender Mr. David as an
5 expert geologist.

6 MR. NUTTER: Mr. David is qualified.

7 Q. Would you please refer to what we've marked
8 as Exhibit Number One, identify it, and explain what
9 Hilliard Oil and Gas, Inc. is seeking to accomplish?

10 A. The Exhibit One is a land plat, Township
11 9 South, Range 35 East. It shows the acreage outlined in
12 yellow that Hilliard Oil and Gas has under lease, which
13 covers all of Section 20, all of Section 21, and acreage
14 which adjoins it in Section 17.

15 The Hilliard Oil and Gas is seeking authority
16 to directionally drill the Hanson Bonds No. 1, which is
17 located 1650 feet from the north line and 330 feet from the
18 east line of Section 20.

19 Q. That's the well indicated by the arrow?

20 A. That's correct. It's indicated by the
21 arrow.

22 Section 20, Township 9 South, Range 35
23 East, and our proposed TD is in the Devonian and the location
24 of the bottom of the hole target would be within 100 feet of
25 a point 1325 feet from the north line and 430 feet from the

1 east line of Section 20.

2 Q While you're looking at Exhibit Number One,
3 would you identify for us the -- the Examiner, any other
4 Devonian wells in the area?

5 A Yes. In addition to the subject well, the
6 Hanson No. 1 Bonds, which was a Devonian failure in Section
7 20, there's an east offset in Section 21 which was drilled
8 by Hilliard Oil and Gas. It's the Hilliard No. 1 Glenn.
9 It's located in the southwest of the northwest of 21.

10 There are other wells in the Devonian to
11 the southwest in Section 19 and Section 30.

12 Q There's a well located in the northwest
13 of the northeast quarter of Section 20. What is that well?

14 A That's an abandoned San Andres oil producer.

15 Q If I understand you correctly, Mr. David,
16 the proposal is to re-enter this old Devonian well and to
17 directionally drill or deviate from that wellbore at some
18 point and to bottom the well, then, at a location northwest
19 of the surface location for that particular --

20 A That is correct.

21 Q Would you turn to Exhibit Number Two and
22 identify that?

23 A Exhibit Number Two is a structure map con-
24 toured on top of the Devonian. It has a contour interval of
25 50 feet and a scale of 1-inch-to-2000-feet.

1 In this area the acreage under lease by
2 Hilliard is outlined in yellow; also spotted on this map are
3 only the wells which have penetrated the Devonian formation
4 in the mapped area.

5 The top of the Devonian is highlighted in
6 yellow and there are four wells in the mapped area which have
7 penetrated the Devonian.

8 Q Would you summarize for the Examiner what
9 information you have used in order to compile this structure
10 map?

11 A First, we used the four Devonian points
12 wells which are shown in the area. In addition to this we
13 had seismic data available in the area, which is the basis
14 for faulting and the orientation of our structural axis in
15 the area.

16 Also we have a dipmeter survey on the
17 Hanson No. 1 Bonds in Section 20.

18 Q Your exhibit shows the existence of some
19 faults in this area. Would you describe those for us?

20 A The first fault would be a fault which
21 trends roughly northeast-southwest and it cuts the Devonian
22 and Woodford sections in the Hanson No. 1 Bond in Section
23 20.

24 As you look at this Hanson No. 1 Bonds
25 you notice that there are two Devonian tops. We had a re-

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1 peat section of the Devonian. Both the Upper Devonian and
2 Lower Devonian tops are shown on the map.

3 So this well is known to exist by this
4 particular well. Also there is a fault bounding the structure
5 to the north, which goes through Section 17, and this is
6 based on seismic data.

7 Q Would you explain to us why Hilliard is
8 seeking to re-enter and deviate an existing wellbore rather
9 than simply drilling a new well?

10 A Well, the primary reason is the savings in
11 cost. We feel that estimated cost to a casing point of re-
12 entering this well, the Hanson No. 1 Bonds, would approximate
13 \$272,000.

14 On the other hand, if we were to drill a
15 new well in the area without a re-entry, it would approxi-
16 mately cost \$230,000 additional, which would run the cost of
17 a new well probably in excess of \$500,000.

18 Q And based upon those costs, Mr. David,
19 would it be economically feasible for Hilliard to drill a
20 new well to test the Devonian in this area as opposed to
21 re-entering this old well and directionally drilling?

22 A It might be economically feasible, but it
23 would certainly make better economics to re-enter this one.
24 It would result in a substantial savings.

25 Q What particular pool, if any, are we in

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1 at this point?

2 A. There is no pool designation within the
3 area. Both the wells in Section 20 and 21 were dry holes.

4 Q. Without special pool rules, then, this
5 well would be dedicated to a 40-acre tract?

6 A. That is correct.

7 Q. In fact, what do you anticipate to dedicate
8 to the particular well?

9 A. In the event that the well is completed
10 as a Devonian producer, we would propose that the east half
11 of the northeast quarter of Section 20, the 80 acres, be
12 dedicated as a proration unit.

13 Q. Would you please refer to Exhibit Number
14 Three and identify that?

15 A. Exhibit Number Three is a cross section
16 in the mapped area.

17 The cross section has a datum -- the cross
18 section has a datum of -8000 feet. Both the vertical and
19 horizontal scale of 1-inch equal 100-feet.

20 The well on the righthand side, the eastern-
21 most point, subsurface control is the Hilliard No. 1 Glenn,
22 which is located in Section 21.

23 The well on the lefthand side is the pro-
24 posed re-entry in Section 20, the Hanson No. 1 Bonds.

25 You will note that we show on this particu-

1 lar well the proposed directionally drilled hole from 11,200
2 to 12,600.

3 The Hilliard No. 1 Glenn, the well to the
4 east and to the right on the cross section, encountered a
5 normal Woodford Devonian section and found the top of the
6 Devonian to be highly permeable, and it contained both oil
7 and water.

8 We had two drill stem tests, as shown on
9 the cross section. These wells recovered -- or these drill
10 stem tests recovered 500 feet of free oil and 600 feet of
11 free oil, but in addition to this they recovered anywhere
12 from 600 feet of sulphur water to 1000 feet of sulphur water,
13 and it wasn't economically feasible to attempt a completion
14 since it did not appear it would make an economical comple-
15 tion from the Devonian.

16 So the well was plugged and abandoned.

17 The second well on the cross section to
18 the west is the Hanson No. 1 Bonds, the proposed re-entry.
19 This well was entirely different. We found that in this
20 well that we had a repeat of the Woodford formation and the
21 Devonian. The repeats of these are shown on the cross sec-
22 tion. We show the first Woodford, the first Devonian, the
23 second Woodford and the second Devonian in descending order.

24 Our interpretation is that this is a re-
25 verse fault upthrown to the west.

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1 Also, the Devonian rock was different; that
2 is, it was tight. We ran two drill stem tests. DST number
3 one was in the first Devonian. We recovered drilling mud.
4 The second test was in the second Devonian and on that test
5 we recovered only 700 feet of sulphur water, and in addition
6 to that the bottom of the test is where we encountered the
7 porosity. So we found that there was a substantial loss
8 of porosity and permeability when we crossed this fault.

9 So our feeling is that the reverse fault
10 is responsible, perhaps, for the Devonian being tight in
11 this particular well.

12 Q Would you turn now to Exhibit Number Four?
13 With the information on that exhibit, Mr. David, would you
14 describe for the Examiner how Hilliard proposes to deviate
15 this well?

16 A First, we plan to drill the cement plugs
17 and clean out to 11,800.

18 Q When do you propose to commence the
19 drilling of the well?

20 A I have a rig scheduled to move in the 27th
21 of this month.

22 And at that point we propose to run a
23 directional survey of the hole from surface to 11,800 feet.
24 At 11,800 feet this depth will tie in with the directional
25 survey we'd run on the other well, so that would give us a

1 complete directional survey on the old Hanson No. 1 Bonds.

2 And then we plan to set cement plugs and
3 we propose to directionally drill a new hole from 11,200 to
4 total depth, which would be approximately 12,600 feet.

5 And we also propose to run a directional
6 survey of the new hole. By then, based on that, we would
7 either run 5-1/2 production string if we have a reservoir,
8 or in the vent of a dry hole, plug and abandon it.

9 Q Who's the drilling contractor for Hilliard
10 for the deviated hole?

11 A We use Moranco.

12 Q Would you identify what is marked as Ex-
13 hibit Number Five?

14 A This is a well location and acreage dedi-
15 cation plat, which is a New Mexico standard form C-102.

16 Q Mr. David, were Exhibits One through Five
17 compiled under your direction or prepared by you directly?

18 A The -- yes, with the exception of the
19 last two exhibits, Four and Five, and these were prepared
20 by Hilliard.

21 Q And have you examined information contained
22 on Exhibit Four and Exhibit Five, and to the best of your
23 knowledge, information, and belief, is the information con-
24 tained on those exhibits true and accurate?

25 A That is correct.

1 Q In your opinion will approval of this ap-
2 plication be in the best interests of conservation, the
3 prevention of waste, and the protection of correlative
4 rights?

5 A Yes, it will.

6 MR. KELLAHIN: Mr. Examiner, we move the
7 introduction of Exhibits One through Five.

8 MR. NUTTER: Applicant's Exhibits One
9 through Five will be admitted in evidence.

10 CROSS EXAMINATION

11 BY MR. NUTTER:

12 Q Mr. David, where is the nearest Devonian
13 production to this well?

14 A The nearest pool that's currently pro-
15 ducing would be the Bough-Devonian Field to the east here,
16 approximately one, two, a little over three miles to the
17 northeast.

18 Q These wells up here in Section 13 and 14
19 of Township 9, 35, are Devonian wells?

20 A Yes. Those are in Section 13 and 14 and
21 that would be in Township 9 South, Range 35 East.

22 Q Now, your surface location is 1650 from
23 the north and 330 from the east.

24 A That is correct.
25

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1 Q Of Section 20. And it's my understanding
2 that you would drill northwest in such a manner as to bottom
3 the well at approximately 1325 from the north line, which
4 would be just inside that 40-acre tract, and 430 feet from
5 the east line, which would be 100 feet west of your surface
6 location.

7 A That is correct.

8 Q And all you're trying to do is get across
9 this fault, to test that block on the west side of the
10 fault, is that it?

11 A Yes, that would be basically it and the
12 reason for it is that the Hanson No. 1 Bonds were tight after
13 crossing the fault, so we're trying to get away from that
14 fault in hopes of one, getting a permeable porous section
15 on the upthrown side.

16 Q You feel like that the formation was ori-
17 ginally a porous formation but the action of the faulting
18 is what compressed the rock and made it tight there?

19 A That is correct.

20 Q And so just to get away from the fault,
21 you'd get into the more permeable and porous section of the
22 Devonian?

23 A That is correct.

24 Q Okay. Now, on your Exhibit Number Four
25 it shows the casing that's in this well. Was all this casing

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1 left in the well when the well was plugged?

2 A. Yes, there's been -- we have the 8-5/8ths
3 which is still in the hole set at a depth of 4036 feet.

4 Q. Oh, I see, okay. You had a note here. I
5 was looking for what that asterisk meant. I see it now.
6 All casing was left in the hole.

7 A. Yes. And the 7-7/8ths, that's what we
8 propose to run in the event of production in the Devonian.

9 Q. I see. 7-7/8ths-inch hole, 5-1/2-inch
10 casing.

11 A. Yes, that's correct.

12 Q. Now, you mentioned you'd dedicate the east
13 half of the northeast quarter. Actually, in the absence of
14 pool rules you'd be limited to a 40-acre dedication. So if
15 the well were bottomed in the 40 in which the surface loca-
16 tion is, you'd have the southeast of the northeast dedicated
17 to the well.

18 A. That is correct.

19 MR. NUTTER: Are there any further questions
20 of the witness? He may be excused.

21 Do you have anything further, Mr. Kellahin?

22 MR. KELLAHIN: No, sir.

23 MR. NUTTER: Does anyone have anything they
24 wish to offer in Case Number 6629?

25 We'll take the case under advisement.

RELPORTER'S CERTIFICATE

I, SALLY W. 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 the said transcript is a full, true, and correct
 record of the hearing, prepared by me to the best of my
 ability, from my notes taken at the time of the hearing.

Sally W. Boyd
 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. 6629
 heard by me on 8/22 1979.

[Signature], Examiner
 Oil Conservation Division

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3 MR. PADILLA: Application of Hilliard Oil
4 and Gas, Inc., for directional drilling, Lea County, New
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12 EDWARD DAVID
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23 Q Mr. David, have you previously testified
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9 Hilliard Oil and Gas, Inc. is seeking to accomplish?

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11 9 South, Range 35 East. It shows the acreage outlined in
12 yellow that Hilliard Oil and Gas has under lease, which
13 covers all of Section 20, all of Section 21, and acreage
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16 to directionally drill the Hanson Bonds No. 1, which is
17 located 1650 feet from the north line and 330 feet from the
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19 Q That's the well indicated by the arrow?

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21 arrow.

22 Section 20, Township 9 South, Range 35
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24 of the bottom of the hole target would be within 100 feet of
25 a point 1325 feet from the north line and 430 feet from the

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2 Q While you're looking at Exhibit Number One,
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5 A Yes. In addition to the subject well, the
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8 by Hilliard Oil and Gas. It's the Hilliard No. 1 Glenn.
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13 of the northeast quarter of Section 20. What is that well?

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15 Q If I understand you correctly, Mr. David,
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17 directionally drill or deviate from that wellbore at some
18 point and to bottom the well, then, at a location northwest
19 of the surface location for that particular --

20 A That is correct.

21 Q Would you turn to Exhibit Number Two and
22 identify that?

23 A Exhibit Number Two is a structure map con-
24 toured on top of the Devonian. It has a contour interval of
25 50 feet and a scale of 1-inch-to-2000-feet.

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1 In this area the acreage under lease by
2 Hilliard is outlined in yellow; also spotted on this map are
3 only the wells which have penetrated the Devonian formation
4 in the mapped area.

5 The top of the Devonian is highlighted in
6 yellow and there are four wells in the mapped area which have
7 penetrated the Devonian.

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12 wells which are shown in the area. In addition to this we
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14 for faulting and the orientation of our structural axis in
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16 Also we have a dipmeter survey on the
17 Hanson No. 1 Bonds in Section 20.

18 Q Your exhibit shows the existence of some
19 faults in this area. Would you describe those for us?

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21 trends roughly northeast-southwest and it cuts the Devonian
22 and Woodford sections in the Hanson No. 1 Bond in Section
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24 As you look at this Hanson No. 1 Bonds
25 you notice that there are two Devonian tops. We had a re-

1 peat section of the Devonian. Both the Upper Devonian and
2 Lower Devonian tops are shown on the map.

3 So this well is known to exist by this
4 particular well. Also there is a fault bounding the structure
5 to the north, which goes through Section 17, and this is
6 based on seismic data.

7 Q Would you explain to us why Hilliard is
8 seeking to re-enter and deviate an existing wellbore rather
9 than simply drilling a new well?

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11 cost. We feel that estimated cost to a casing point of re-
12 entering this well, the Hanson No. 1 Bonds, would approximate
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16 mately cost \$230,000 additional, which would run the cost of
17 a new well probably in excess of \$500,000.

18 Q And based upon those costs, Mr. David,
19 would it be economically feasible for Hilliard to drill a
20 new well to test the Devonian in this area as opposed to
21 re-entering this old well and directionally drilling?

22 A It might be economically feasible, but it
23 would certainly make better economics to re-enter this one.
24 It would result in a substantial savings.

25 Q What particular pool, if any, are we in

1 at this point?

2 A There is no pool designation within the
3 area. Both the wells in Section 20 and 21 were dry holes.

4 Q Without special pool rules, then, this
5 well would be dedicated to a 40-acre tract?

6 A That is correct.

7 Q In fact, what do you anticipate to dedicate
8 to the particular well?

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21 most point, subsurface control is the Hilliard No. 1 Glenn,
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25 You will note that we show on this particu-

lar well the proposed directionally drilled hole from 11,200 to 12,600.

The Hilliard No. 1 Glenn, the well to the east and to the right on the cross section, encountered a normal Woodford Devonian section and found the top of the Devonian to be highly permeable, and it contained both oil and water.

We had two drill stem tests, as shown on the cross section. These wells recovered -- or these drill stem tests recovered 500 feet of free oil and 600 feet of free oil, but in addition to this they recovered anywhere from 600 feet of sulphur water to 1000 feet of sulphur water, and it wasn't economically feasible to attempt a completion since it did not appear it would make an economical completion from the Devonian.

So the well was plugged and abandoned.

The second well on the cross section to the west is the Hanson No. 1 Bonds, the proposed re-entry. This well was entirely different. We found that in this well that we had a repeat of the Woodford formation and the Devonian. The repeats of these are shown on the cross section. We show the first Woodford, the first Devonian, the second Woodford and the second Devonian in descending order.

Our interpretation is that this is a reverse fault upthrown to the west.

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1 Also, the Devonian rock was different; that
2 is, it was tight. We ran two drill stem tests. DST number
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4 The second test was in the second Devonian and on that test
5 we recovered only 700 feet of sulphur water, and in addition
6 to that the bottom of the test is where we encountered the
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8 of porosity and permeability when we crossed this fault.

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CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (606) 471-2462
Santa Fe, New Mexico 87501

1 complete directional survey on the old Hanson No. 1 Bonds.

2 And then we plan to set cement plugs and
3 we propose to directionally drill a new hole from 11,200 to
4 total depth, which would be approximately 12,600 feet.

5 And we also propose to run a directional
6 survey of the new hole. By then, based on that, we would
7 either run 5-1/2 production string if we have a reservoir,
8 or in the vent of a dry hole, plug and abandon it.

9 Q Who's the drilling contractor for Hilliard
10 for the deviated hole?

11 A We use Moranco.

12 Q Would you identify what is marked as Ex-
13 hibit Number Five?

14 A This is a well location and acreage dedi-
15 cation plat, which is a New Mexico standard form C-102.

16 Q Mr. David, were Exhibits One through Five
17 compiled under your direction or prepared by you directly?

18 A The -- yes, with the exception of the
19 last two exhibits, Four and Five, and these were prepared
20 by Hilliard.

21 Q And have you examined information contained
22 on Exhibit Four and Exhibit Five, and to the best of your
23 knowledge, information, and belief, is the information con-
24 tained on those exhibits true and accurate?

25 A That is correct.

1 Q In your opinion will approval of this ap-
2 plication be in the best interests of conservation, the
3 prevention of waste, and the protection of correlative
4 rights?

5 A Yes, it will.

6 MR. KELLAHIN: Mr. Examiner, we move the
7 introduction of Exhibits One through Five.

8 MR. NUTTER: Applicant's Exhibits One
9 through Five will be admitted in evidence.

10 CROSS EXAMINATION

11 BY MR. NUTTER:

12 Q Mr. David, where is the nearest Devonian
13 production to this well?

14 A The nearest pool that's currently pro-
15 ducing would be the Bough-Devonian Field to the east here,
16 approximately one, two, a little over three miles to the
17 northeast.

18 Q These wells up here in Section 13 and 14
19 of Township 9, 35, are Devonian wells?

20 A Yes. Those are in Section 13 and 14 and
21 that would be in Township 9 South, Range 35 East.

22 Q Now, your surface location is 1650 from
23 the north and 330 from the east.

24 A That is correct.
25

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (665) 471-2482
Santa Fe, New Mexico 87501

1 Q Of Section 20. And it's my understanding
2 that you would drill northwest in such a manner as to bottom
3 the well at approximately 1325 from the north line, which
4 would be just inside that 40-acre tract, and 430 feet from
5 the east line, which would be 100 feet west of your surface
6 location.

7 A That is correct.

8 Q And all you're trying to do is get across
9 this fault, to test that block on the west side of the
10 fault, is that it?

11 A Yes, that would be basically it and the
12 reason for it is that the Hanson No. 1 Bonds were tight after
13 crossing the fault, so we're trying to get away from that
14 fault in hopes of one, getting a permeable porous section
15 on the upthrown side.

16 Q You feel like that the formation was ori-
17 ginally a porous formation but the action of the faulting
18 is what compressed the rock and made it tight there?

19 A That is correct.

20 Q And so just to get away from the fault,
21 you'd get into the more permeable and porous section of the
22 Devonian?

23 A That is correct.

24 Q Okay. Now, on your Exhibit Number Four
25 it shows the casing that's in this well. Was all this casing

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (665) 471-2452
Santa Fe, New Mexico 87501

1 left in the well when the well was plugged?

2 A Yes, there's been -- we have the 8-5/8ths
3 which is still in the hole set at a depth of 4036 feet.

4 Q Oh, I see, okay. You had a note here. I
5 was looking for what that asterisk meant. I see it now.
6 All casing was left in the hole.

7 A Yes. And the 7-7/8ths, that's what we
8 propose to run in the event of production in the Devonian.

9 Q I see. 7-7/8ths-inch hole, 5-1/2-inch
10 casing.

11 A Yes, that's correct.

12 Q Now, you mentioned you'd dedicate the east
13 half of the northeast quarter. Actually, in the absence of
14 pool rules you'd be limited to a 40-acre dedication. So if
15 the well were bottomed in the 40 in which the surface loca-
16 tion is, you'd have the southeast of the northeast dedicated
17 to the well.

18 A That is correct.

19 MR. NUTTER: Are there any further questions
20 of the witness? He may be excused.

21 Do you have anything further, Mr. Kellahin?

22 MR. KELLAHIN: No, sir.

23 MR. NUTTER: Does anyone have anything they
24 wish to offer in Case Number 6629?

25 We'll take the case under advisement.

REPORTER'S CERTIFICATE

I, SALLY W. 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 the said transcript is a full, true, and correct
 record of the hearing, prepared by me to the best of my
 ability, 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. 6629
 heard by me on 8/22 1979
 [Signature], Examiner
 Oil Conservation Division

SALLY WALTON BOYD
 CERTIFIED SHORTHAND REPORTER
 3020 Plaza Blanca (SOS) 471-2402
 Santa Fe, New Mexico 87501



BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Thomas Kellahin
Kellahin & Kellahin
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: CASE NO. 6629
ORDER NO. R-6089

Applicant:

Hilliard Oil & Gas, Inc.

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

UJR/fd

Copy of order also sent to:

Hobbs OCD	<u>X</u>
Artesia OCD	<u>X</u>
Aztec OCD	

Other

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. 6629
Order No. R-6089

APPLICATION OF HILLIARD OIL & GAS,
INC. 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 August 22, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 28th day of August, 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, Hilliard Oil & Gas, Inc. seeks approval for the directional drilling of its Hanson Bonds Well No. 1, the surface location of which is 1650 feet from the North line and 330 feet from the East line of Section 20, Township 9 South, Range 35 East, Lea County, New Mexico.

(3) That the applicant seeks authority to re-enter said well, to directionally survey the hole from the surface to a depth of 11,800 feet, and to directionally drill from a kick-off point at a depth of 11,200 feet to a total depth of approximately 12,600 feet in the Devonian formation, bottoming said well within 100 feet of a point 1325 feet from the North line and 430 feet from the East line of said Section 20.

(4) That the 40-acre tract under which said well is bottomed should be dedicated to said well in the Devonian formation.

-2-

Case No. 6629
Order No. R-6089

(5) That the applicant should be required 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 approval of the subject application will permit the drilling of the proposed well and will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Hilliard Oil & Gas, Inc., is hereby authorized to directionally drill its Hanson Bonds Well No. 1 located 1650 feet from the North line and 330 feet from the East line of Section 20, Township 9 South, Range 35 East, to a Devonian bottom hole location within 100 feet of a point 1325 feet from the North line and 430 feet from the East line of said Section 20.

PROVIDED HOWEVER, that prior to such directional drilling, applicant shall directionally survey said well from the depth of 11,800 feet to the surface and shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe Office of the Division, Box 2088, Santa Fe, New Mexico 87501.

PROVIDED FURTHER, 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, 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.

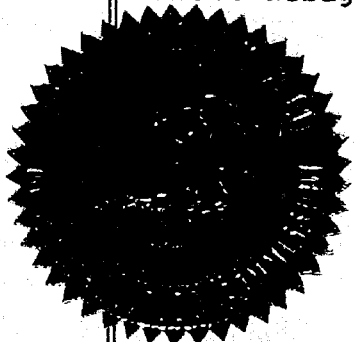
(3) That the 40-acre tract under which said well is bottomed shall be dedicated to said well in the Devonian formation.

-3-

Case No. 6629
Order No. R-6089

(4) 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.



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

fd/

To
Portales

<p>11314 11315 11316 11317 11318 11319 11320 11321 11322 11323 11324 11325 11326 11327 11328 11329 11330 11331 11332 11333 11334 11335 11336 11337 11338 11339 11340 11341 11342 11343 11344 11345 11346 11347 11348 11349 11350 11351 11352 11353 11354 11355 11356 11357 11358 11359 11360 11361 11362 11363 11364 11365 11366 11367 11368 11369 11370 11371 11372 11373 11374 11375 11376 11377 11378 11379 11380 11381 11382 11383 11384 11385 11386 11387 11388 11389 11390 11391 11392 11393 11394 11395 11396 11397 11398 11399 11400 11401 11402 11403 11404 11405 11406 11407 11408 11409 11410 11411 11412 11413 11414 11415 11416 11417 11418 11419 11420 11421 11422 11423 11424 11425 11426 11427 11428 11429 11430 11431 11432 11433 11434 11435 11436 11437 11438 11439 11440 11441 11442 11443 11444 11445 11446 11447 11448 11449 11450 11451 11452 11453 11454 11455 11456 11457 11458 11459 11460 11461 11462 11463 11464 11465 11466 11467 11468 11469 11470 11471 11472 11473 11474 11475 11476 11477 11478 11479 11480 11481 11482 11483 11484 11485 11486 11487 11488 11489 11490 11491 11492 11493 11494 11495 11496 11497 11498 11499 11500 11501 11502 11503 11504 11505 11506 11507 11508 11509 11510 11511 11512 11513 11514 11515 11516 11517 11518 11519 11520 11521 11522 11523 11524 11525 11526 11527 11528 11529 11530 11531 11532 11533 11534 11535 11536 11537 11538 11539 11540 11541 11542 11543 11544 11545 11546 11547 11548 11549 11550 11551 11552 11553 11554 11555 11556 11557 11558 11559 11560 11561 11562 11563 11564 11565 11566 11567 11568 11569 11570 11571 11572 11573 11574 11575 11576 11577 11578 11579 11580 11581 11582 11583 11584 11585 11586 11587 11588 11589 11590 11591 11592 11593 11594 11595 11596 11597 11598 11599 11600 11601 11602 11603 11604 11605 11606 11607 11608 11609 11610 11611 11612 11613 11614 11615 11616 11617 11618 11619 11620 11621 11622 11623 11624 11625 11626 11627 11628 11629 11630 11631 11632 11633 11634 11635 11636 11637 11638 11639 11640 11641 11642 11643 11644 11645 11646 11647 11648 11649 11650 11651 11652 11653 11654 11655 11656 11657 11658 11659 11660 11661 11662 11663 11664 11665 11666 11667 11668 11669 11670 11671 11672 11673 11674 11675 11676 11677 11678 11679 11680 11681 11682 11683 11684 11685 11686 11687 11688 11689 11690 11691 11692 11693 11694 11695 11696 11697 11698 11699 11700 11701 11702 11703 11704 11705 11706 11707 11708 11709 11710 11711 11712 11713 11714 11715 11716 11717 11718 11719 11720 11721 11722 11723 11724 11725 11726 11727 11728 11729 11730 11731 11732 11733 11734 11735 11736 11737 11738 11739 11740 11741 11742 11743 11744 11745 11746 11747 11748 11749 11750 11751 11752 11753 11754 11755 11756 11757 11758 11759 11760 11761 11762 11763 11764 11765 11766 11767 11768 11769 11770 11771 11772 11773 11774 11775 11776 11777 11778 11779 11780 11781 11782 11783 11784 11785 11786 11787 11788 11789 11790 11791 11792 11793 11794 11795 11796 11797 11798 11799 11800 11801 11802 11803 11804 11805 11806 11807 11808 11809 11810 11811 11812 11813 11814 11815 11816 11817 11818 11819 11820 11821 11822 11823 11824 11825 11826 11827 11828 11829 11830 11831 11832 11833 11834 11835 11836 11837 11838 11839 11840 11841 11842 11843 11844 11845 11846 11847 11848 11849 11850 11851 11852 11853 11854 11855 11856 11857 11858 11859 11860 11861 11862 11863 11864 11865 11866 11867 11868 11869 11870 11871 11872 11873 11874 11875 11876 11877 11878 11879 11880 11881 11882 11883 11884 11885 11886 11887 11888 11889 11890 11891 11892 11893 11894 11895 11896 11897 11898 11899 11900 11901 11902 11903 11904 11905 11906 11907 11908 11909 11910 11911 11912 11913 11914 11915 11916 11917 11918 11919 11920 11921 11922 11923 11924 11925 11926 11927 11928 11929 11930 11931 11932 11933 11934 11935 11936 11937 11938 11939 11940 11941 11942 11943 11944 11945 11946 11947 11948 11949 11950 11951 11952 11953 11954 11955 11956 11957 11958 11959 11960 11961 11962 11963 11964 11965 11966 11967 11968 11969 11970 11971 11972 11973 11974 11975 11976 11977 11978 11979 11980 11981 11982 11983 11984 11985 11986 11987 11988 11989 11</p>

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U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-4-65

5A. Indicate Type of Lease
STATE <input type="checkbox"/> FCC <input checked="" type="checkbox"/>

5. State Oil & Gas Lease No.

None

7. Unit Agreement Name

None

8. Farm or Lease Name

BONDS

9. Well No.

1

10. Field and Pool, or Wildcat

Wildcat

12. County

Lea

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work	<input checked="" type="checkbox"/> Re-Enter & Directionally Drill
b. Type of Well	DRILL <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>
OIL WELL <input checked="" type="checkbox"/>	GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>
SINGLE ZONE <input checked="" type="checkbox"/>	MULTIPLE ZONE <input type="checkbox"/>

2. Name of Operator
Hilliard Oil & Gas, Inc.

3. Address of Operator
1190 Midland National Bank Tower, Midland, Texas 79701

4. Location of Well UNIT LETTER H LOCATED 1650 FEET FROM THE North LINE

AND 330 FEET FROM THE East LINE OF SEC. 20 TWP. 9-S RGE. 35-E NMPM

19. Proposed Depth 12,750'	19A. Formation Devonian	20. Rotary or C.T. Rotary
21. Elevations (Show whether D.P., H.T., etc.) 4160' GR	21A. Kind & Status Plug Bond Blanket Bond	21B. Drilling Contractor MORANCO
		22. Approx. Date Work will start August 27, 1979

23. PROPOSED CASING AND CEMENT PROGRAM *All Casing left in hole.

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
15"	12-3/4" O.D.	35#	449'*	525	Circ. to surface
11"	8-5/8" O.D.	24# & 32#	4036'*	1480	Circ. to surface
7-7/8"	5-1/2" O.D.	17#	12750'	250	11,600'

1. Drill cement plugs and clean out hole to 11,800'. Build mud properties.
2. Run directional Survey of hole from surface to 11,800'.
3. Set cement plug and proceed to directionally drill new 7-7/8" hole from 11,200' to total depth. Bottom hole target to be 1325' from North line and 430' from East line of Section 20.
4. Run directional survey of new hole.
5. Drill stem test all significant shows of oil and/or gas.
6. Run open hole logs from total depth to 11,200' (see reverse)

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Hilliard EXHIBIT NO. <u>4</u>
CASE NO. <u>6629</u>

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM IF PROPOSED TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTION FLOW AND PROPOSED NEW PRODUCTION FLOW. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed John A. Weideman Title John A. Weideman, Drilling Engr. Date August 14, 1979
(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

(Cont'd)

7. Set 5-1/2" OD production casing from surface to total depth.
8. In the event of a dry hole, plug and abandon as per Commission requirements.
9. Annular and double ram hydraulic blowout preventers to be installed initially and then pressure tested prior to drilling out cement plug in bottom of 8-5/8" casing string. Preventers to be operated and checked daily.

Hearing on application to intentionally deviate well docketed for August 22, 1979.

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.

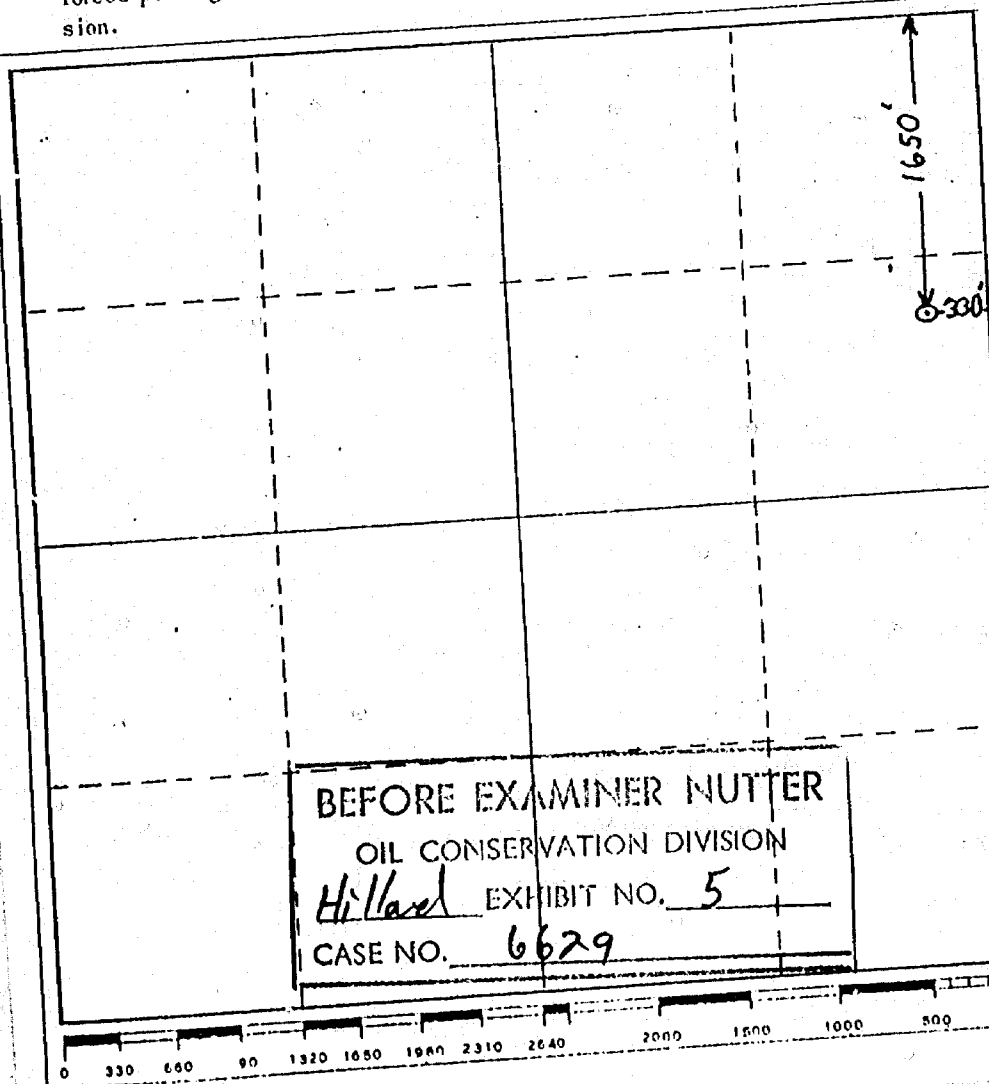
Operator HILLIARD OIL & GAS, INC.		Lease		Well No.	
BONDS					
Unit Letter H	Section 20	Township 9 South	Range 35 East	County Lea	
Actual Postage Location of Well:					
1650 feet from the North line and 330 feet from the East line		Dedicated Acreage: 40 Acres			
Ground Level Elev. 4160'	Producing Formation Devonian		Pool Wildcat		

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 _____

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.

John A. Weideman

Name

John A. Weideman

Position

Drilling Engineer

Company

Hilliard Oil & Gas, Inc.

Date

August 14, 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

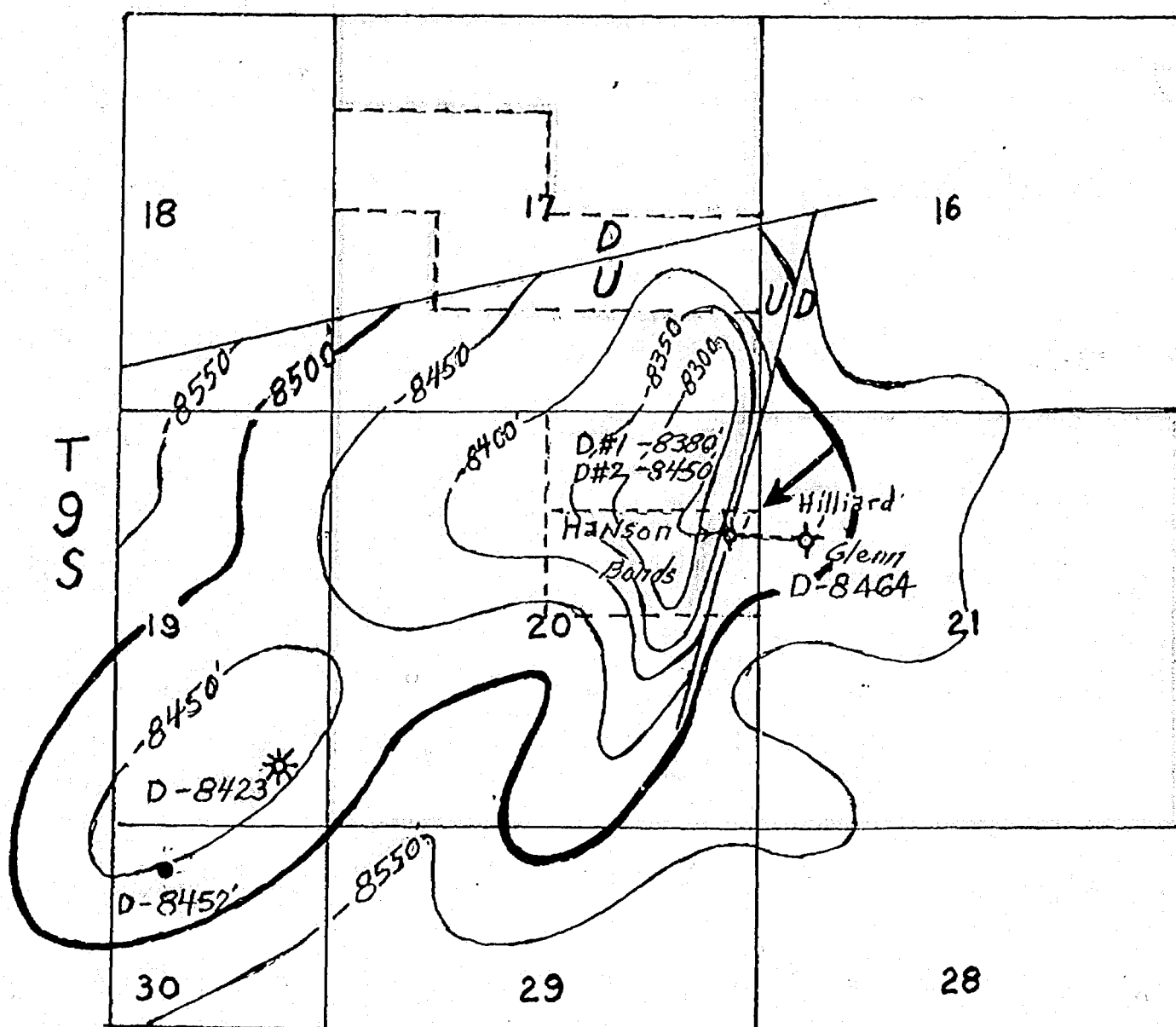
Registered Professional Engineer and/or Land Surveyor

Certificate No.

To
Portals

Exhibit 1
Case 6629

Santa Fe. N. M.



R35E.

Exhibit 2
case 6629

WEST BOUGH PROSPECT Lea County, New Mexico HILLIARD OIL & GAS, INC.	
Contour Horizon	Top of Devonian
Contour Interval	50'
Scale	1" = 2,000'
Geologist	E. K. David
Date	8-14-79

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LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease STATE <input type="checkbox"/> FCC <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No. None
7. Unit Agreement Name None
8. Farm or Lease Name BONDS
9. Well No. 1
10. Field and Pool, or Wildcat Wildcat
12. County Lea
19. Proposed Depth 12,750'
19A. Formation Devonian
20. Rotary or C.T. Rotary
21. Elevations (Show whether D.P., R.T., etc.) 4160' GR
21A. Kind & Status Plug. Bond Blanket Bond
21B. Drilling Contractor MORANCO
22. Approx. Date Work will start August 27, 1979

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK					
1a. Type of Work <input checked="" type="checkbox"/> Re-Enter & Directionally Drill					
b. Type of Well DRILL <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>					
OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>					
2. Name of Operator Hilliard Oil & Gas, Inc.					
3. Address of Operator 1190 Midland National Bank Tower, Midland, Texas 79701					
4. Location of Well UNIT LETTER <u>H</u> LOCATED <u>1650</u> FEET FROM THE <u>North</u> LINE AND <u>330</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>20</u> TWP. <u>9-S</u> RGE. <u>35-E</u> NMPM					
19. Proposed Depth 12,750'					
19A. Formation Devonian					
20. Rotary or C.T. Rotary					
21. Elevations (Show whether D.P., R.T., etc.) 4160' GR					
21A. Kind & Status Plug. Bond Blanket Bond					
21B. Drilling Contractor MORANCO					
22. Approx. Date Work will start August 27, 1979					

23. PROPOSED CASING AND CEMENT PROGRAM *All Casing left in hole.

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
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4. Run directional survey of new hole.
5. Drill stem test all significant shows of oil and/or gas.
6. Run open hole logs from total depth to 11,200'

(see reverse)

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM IF DIFFERENT FROM THAT SET FORTH IN PERMIT TO DRILL, DEEPEN OR PLUG BACK. GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTION ZONE. GIVE BLOWOUT PREVENTION PROGRAM, IF ANY.

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

Signed John A. Weideman Title John A. Weideman, Drilling Engr. Date August 14, 1979
(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

Exhibit 4
Case 6629

(Cont'd)

7. Set 5-1/2" OD production casing from surface to total depth.
8. In the event of a dry hole, plug and abandon as per Commission requirements.
9. Annular and double ram hydraulic blowout preventers to be installed initially and then pressure tested prior to drilling out cement plug in bottom of 8-5/8" casing string. Preventers to be operated and checked daily.

Hearing on application to intentionally deviate well docketed for August 22, 1979.

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 HILLIARD OIL & GAS, INC.			Lease BONDS		Well No. 1
Unit Letter H	Section 20	Township 9 South	Range 35 East	County Lea	
Actual Footage Location of Well:					
1650 feet from the North line and		330 feet from the East line			
Ground Level Elev. 4160'	Producing Formation Devonian	Pool Wildcat	Dedicated Acreage: 40 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 _____

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.

	<p align="center">CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>John A. Weideman</i></p> <p>Name John A. Weideman</p> <p>Position Drilling Engineer</p> <p>Company Hilliard Oil & Gas, Inc.</p> <p>Date August 14, 1979</p> <p>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.</p> <p>Date Surveyed _____</p> <p>Registered Professional Engineer and/or Land Surveyor _____</p> <p>Certificate No. _____</p>
	<p align="center">Exhibit 5 Case 6629</p>

To
Portals

Exhibit 1
Case 6629
C.A. 10, 1966, 3

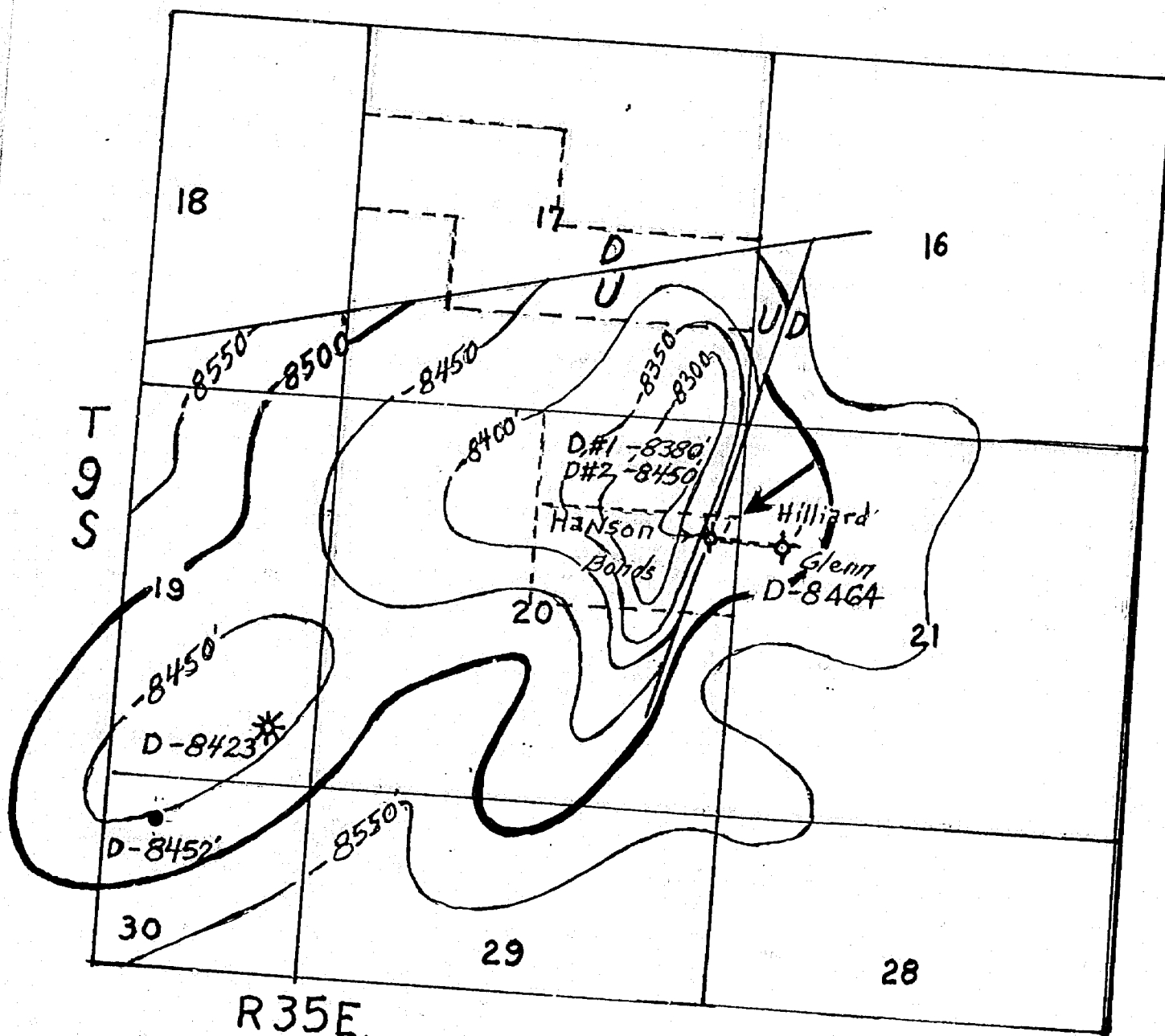


Exhibit 2
case 6629

WEST BOUGH PROSPECT	
Lea County, New Mexico	
HILLIARD OIL & GAS, INC.	
Contour Horizon	Top of Devonian
Contour Interval	50'
Scale	1" = 2,000'
Geologist E. K. David	Date 8-14-79

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FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease
STATE <input type="checkbox"/> REC <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.
None
7. Unit Agreement Name
None
8. Farm or Lease Name
BONDS
9. Well No.
1
10. Field and Pool, or Wildcat
Wildcat
12. County
Lea
19. Proposed Depth
12,750'
19A. Formation
Devonian
20. Rotary or C.T.
Rotary
21. Elevations (Show whether D.P., R.T., etc.)
4160' GR
21A. Kind & Status Plug. Bond
Blanket Bond
21B. Drilling Contractor
MORANCO
22. Approx. Date Work will start
August 27, 1979

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK					
1a. Type of Work <input checked="" type="checkbox"/> Re-Enter & Directionally Drill					
b. Type of Well DRILL <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>					
OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>					
2. Name of Operator					
Hilliard Oil & Gas, Inc.					
3. Address of Operator					
1190 Midland National Bank Tower, Midland, Texas 79701					
4. Location of Well					
UNIT LETTER <u>H</u> LOCATED <u>1650</u> FEET FROM THE <u>North</u> LINE					
AND <u>330</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>20</u> TWP. <u>9-S</u> RGE. <u>35-E</u> NMPM					
21. Elevations (Show whether D.P., R.T., etc.)					
4160' GR					
21A. Kind & Status Plug. Bond					
Blanket Bond					
21B. Drilling Contractor					
MORANCO					
22. Approx. Date Work will start					
August 27, 1979					

23. PROPOSED CASING AND CEMENT PROGRAM *All Casing left in hole.

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
15"	12-3/4" O.D.	35#	449'*	525	Circ. to surface
11"	8-5/8" O.D.	24# & 32#	4036'*	1480	Circ. to surface
7-7/8"	5-1/2" O.D.	17#	12750'	250	11,600'

1. Drill cement plugs and clean out hole to 11,800'. Build mud properties.
2. Run directional Survey of hole from surface to 11,800'.
3. Set cement plug and proceed to directionally drill new 7-7/8" hole from 11,200' to total depth. Bottom hole target to be 1325' from North line and 430' from East line of Section 20.
4. Run directional survey of new hole.
5. Drill stem test all significant shows of oil and/or gas.
6. Run open hole logs from total depth to 11,200'

(see reverse)

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSED TO RE-ENTER OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed John A. Weideman Title John A. Weideman, Drilling Engr. Date August 14, 1979
(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Exhibit 4
Case 6629

(Cont'd)

7. Set 5-1/2" OD production casing from surface to total depth.
8. In the event of a dry hole, plug and abandon as per Commission requirements.
9. Annular and double ram hydraulic blowout preventers to be installed initially and then pressure tested prior to drilling out cement plug in bottom of 8-5/8" casing string. Preventers to be operated and checked daily.

Hearing on application to intentionally deviate well docketed for August 22, 1979.

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 HILLIARD OIL & GAS, INC.			Lease BONDS		Well No. 1
Unit Letter H	Section 20	Township 9 South	Range 35 East	County Lea	
Actual Postage Location of Well:					
1650 feet from the North line and		330 feet from the East line			
Ground Level Elev. 4160'	Producing Formation Devonian	Pool Wildcat	Dedicated Acreage: 40 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 _____

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.

John A. Weideman

Name

John A. Weideman

Position

Drilling Engineer

Company

Hilliard Oil & Gas, Inc.

Date

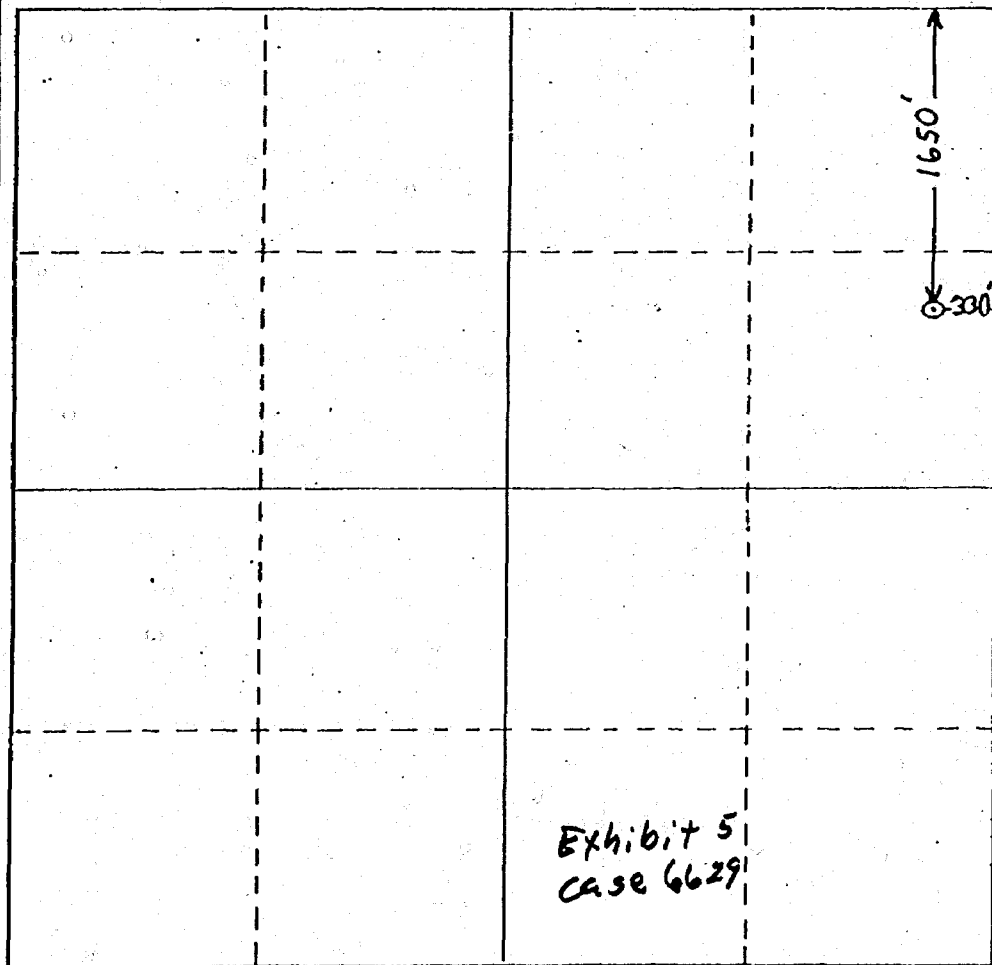
August 14, 1979

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

Registered Professional Engineer and/or Land Surveyor

Certificate No.



**Exhibit 5
Case 6629**



Dockets Nos. 35-79 and 36-79 are tentatively set for September 5 and 19, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 22, 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:

CASE 6545: (Continued from July 25, 1979, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Corinne Grace, Travelers Indemnity Company, and all other interested parties to appear and show cause why the Kuklah Baby Well No. 1 located in Unit G of Section 24, Township 22 South, Range 26 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6626: Application of T. H. McElvain Oil & Gas Properties for pool commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the commingling of Gallup and Dakota production in its Miller B Well No. 6 located in Unit G of Section 12, Township 24 North, Range 7 West.

CASE 6627: Application of Caribou Four Corners, Inc. for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Gallup formation underlying a previously approved 64.32-acre non-standard unit comprising the NW/4 NW/4 and that portion of Lot 5 lying north of the San Juan River, all in Section 18, Township 29 North, Range 14 West, Cha Cha-Gallup Oil Pool, 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. 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 6628: Application of Texaco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Skaggs-Glorieta, Skaggs-Drinkard and East Weir-Blinberry production in the wellbore of its M. B. Weir "B" Well No. 9 located in Unit O of Section 12, Township 20 South, Range 37 East.

CASE 6629: Application of Hilliard Oil & Gas, Inc. for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill its Hanson Bonds Well No. 1 located 1650 feet from the North line and 330 feet from the East line of Section 20, Township 9 South, Range 35 East, to a Devonian bottom hole location within 100 feet of a point 1325 feet from the North line and 430 feet from the East line of said Section 20.

CASE 6630: Application of El Paso Natural Gas Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Basin-Dakota and BS Mesa-Gallup production in the wellbore of its San Juan 27-4 Unit Well No. 37 located in Unit N of Section 33, Township 27 North, Range 4 West.

CASE 6631: Application of Reserve Oil, Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat gas and Langlie Mattix oil production in the wellbore of its Cooper Jal Unit Well No. 149-306 located in Unit J of Section 18, Township 24 South, Range 37 East.

CASE 6632: Application of Mesa Petroleum Company for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Frank State Well No. 1 located in Unit I of Section 7, Township 19 South, Range 23 East, to produce gas from the Abo and Morrow formations, Runyan Ranch Field, through the casing-tubing annulus and through tubing.

CASE 6633: Application of Mesa Petroleum Company for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Yates Federal Com Well No. 1-Y located in Unit J of Section 20, Township 17 South, Range 27 East, to produce gas from the Logan Draw-Cisco Canyon Gas Pool and an undesignated Morrow pool through the casing-tubing annulus and through tubing.

CASE 6634: Application of Durham Inc. for special pool rules or a spacing exception, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Lake Arthur-Pennsylvanian Gas Pool to provide for 320-acre spacing rather than 160 acres. In the absence of objection, this pool will be placed on the standard 320-acre spacing for Pennsylvanian gas pools rather than the present 160-acre spacing. In the alternative applicant seeks to limit the application of the pool's rules to the horizontal limits of the pool, being the SW/4 of Section 31, Township 15 South, Range 27 East.

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM
 Section 4: N/2 and SE/4
 Section 5: N/2
 Section 6: N/2
 Section 9: NE/4
 Section 10: NW/4

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
 Section 19: SW/4
 Section 20: W/2
 Section 31: W/2

(c) CREATE a new pool in San Juan County, New Mexico, classified as a gas pool for Fruitland production and designated as the Farmer-Fruitland Pool. The discovery well is Manana Gas, Incorporated Bobbie Herrera Well No. 1 located in Unit K of Section 4, Township 30 North, Range 11 West, NMPM. Said pool would comprise:

TOWNSHIP 30 NORTH, RANGE 11 WEST, NMPM
 Section 4: SW/4

(d) CREATE a new pool in San Juan County, New Mexico, classified as an oil pool for Pennsylvanian production and designated as the Big Gap-Pennsylvanian Oil Pool. The discovery well is Bass Enterprises Production Company Navajo 20 Well No. 1 located in Unit O of Section 20, Township 27 North, Range 19 West, NMPM. Said pool would comprise:

TOWNSHIP 27 NORTH, RANGE 19 WEST, NMPM
 Section 20: SE/4

(e) EXTEND the Aztec-Fruitland Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM
 Section 29: NE/4

TOWNSHIP 29 NORTH, RANGE 11 WEST, NMPM
 Section 25: SE/4

(f) EXTEND the Aztec-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM
 Section 35: E/2

(g) EXTEND the Bisti-Lower Gallup Oil Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 14 WEST, NMPM
 Section 9: E/2 SE/4
 Section 10: SW/4
 Section 15: N/2 NE/4

(h) EXTEND the Blanco Mesaverde Pool in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM
 Section 4: N/2

TOWNSHIP 26 NORTH, RANGE 2 WEST, NMPM
 Section 30: All (Partial Section)
 Section 31: All (Partial Section)

TOWNSHIP 27 NORTH, RANGE 2 WEST, NMPM
 Section 16: W/2
 Section 20: E/2
 Section 21: NW/4

(i) EXTEND the Blanco-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM
 Section 4: NW/4
 Section 5: NE/4

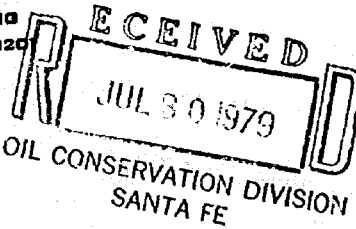
- (q) EXTEND the Harris Mesa-Chacra Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 30 NORTH, RANGE 14 WEST, NMPM
 Section 35: N/2 and SE/4
- (r) EXTEND the Kutz-Fruitland Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 27 NORTH, RANGE 9 WEST, NMPM
 Section 5: NE/4
- (s) EXTEND the Kutz-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 28 NORTH, RANGE 9 WEST, NMPM
 Section 32: E/2
- (t) EXTEND the West Kutz-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM
 Section 32: NE/4
- (u) EXTEND the La Plata-Gallup Oil Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM
 Section 26: SW/4
- (v) EXTEND the West Lin. with Gallup-Dakota Oil Pool in Rio Arriba County, New Mexico, to include therein:
TOWNSHIP 32 NORTH, RANGE 13 WEST, NMPM
 Section 32: N/2 and SW/4
- (w) EXTEND the Otero-Chacra Pool in Rio Arriba and San Juan Counties, New Mexico, to include therein:
TOWNSHIP 24 NORTH, RANGE 3 WEST, NMPM
 Section 6: S/2 (Partial Section)
 Section 18: All (Partial Section)
- (x) EXTEND the Rusty-Chacra Pool in Sandoval County, New Mexico, to include therein:
TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM
 Section 5: N/2
 Section 6: N/2
 Section 24: SE/4
 Section 25: NE/4
- (y) EXTEND the Straight Canyon-Dakota Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM
 Section 3: All
 Section 4: All
 Section 10: N/2 and SE/4
- (z) EXTEND the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 22 NORTH, RANGE 7 WEST, NMPM
 Section 20: SE/4
 Section 21: E/2 and SW/4
- (aa) EXTEND the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM
 Section 14: SE/4
- (ab) EXTEND the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
 Section 29: S/2
 Section 30: E/2
 Section 32: N/2
- (ac) EXTEND the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM
 Section 13: E/2 and SW/4
 Section 14: SE/4
- (ad) EXTEND the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:
TOWNSHIP 27 NORTH, RANGE 13 WEST, NMPM
 Section 18: E/2

PHONE 505/643-1225

LDM Associates

714 PETROLEUM BUILDING
ROSWELL, NEW MEXICO 88201

July 26, 1979



New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Dan Nutter

Case 6629

Gentlemen:

As agent for and on behalf of Hilliard Oil & Gas, Inc., 1190 Midland National Bank Building, Midland, Texas 79701, I request you docket a hearing on August 22, 1979 on applicants request to enter the abandoned Hanson Oil Corporation #1 Bonds located 1650' FNL and 330' FEL Section 20, T9S-R35E, Lea County, New Mexico for the purpose of deviating the hole to be bottomed at 1325' FNL and 430' FEL in the Devonian Formation at a depth of approximately 12,750 feet.

If you need additional information please advise.

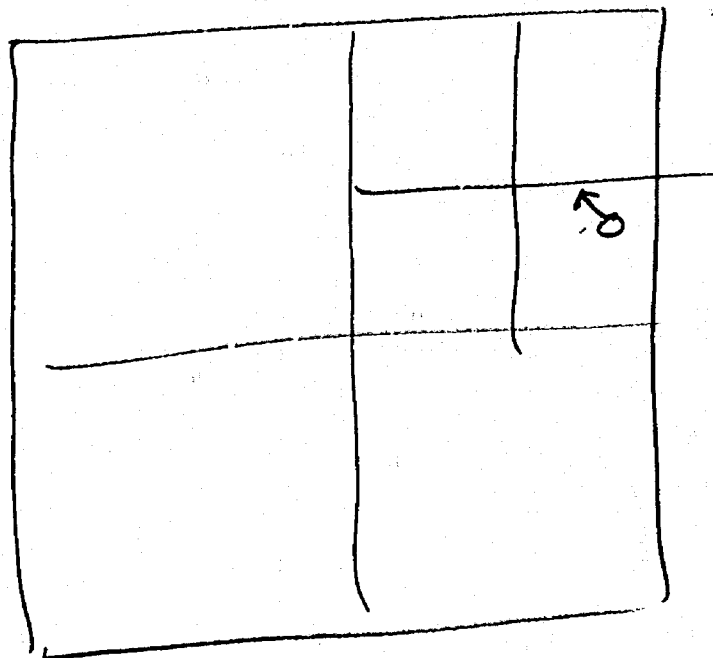
Very truly yours,

Charles C. Loveless, Jr.

CCL/jd

Charlie Lovelass
PO Box 566
Rumlee 88201
Phone 622 1958

Aug 22



Directional drlg
Hilliard Oil & Gas Co
Hanson Bonds Well No 1
surf loc ^{1650'} 1660' FNL 330' FEL
Sec 20, T9S R35E Loc
will go north 3° west 300'
Bottom within 100 feet of a point
1325' FNL & 430' FEL

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. 6629

Order No. R-6089

APPLICATION OF HILLIARD OIL & GAS, INC.
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 August 22
19 79, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of August, 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, Hilliard Oil & Gas, Inc. seeks approval for
the directional drilling of its Hanson Bonds Well No. 1, ^{the surface location of which is} located 1650 feet from

to a depth of 11,800 feet, and to directionally drill from a kick-off point at a depth of 11,200 feet to a total depth of approximately 12,600 feet in the Devonian formation, bottoming said well

the North line and 330 feet from the East line of Section 20, Township 9

South, Range 35 East, Lea County, New Mexico.

authority to re-enter said well, to directionally survey the hole from the surface

(3) That the applicant seeks approval for the directional drilling of said well to a Devonian bottom hole location within 100 feet of a point 1325 feet from the North line and 430 feet from the East line of said Section 20.

40-acre tract under which said well is bottomed

(4) That the ~~SE 1/4 NE 1/4~~ of said Section 20 ~~should~~ be dedicated to the Devonian formation. ~~Pool,~~

and all of Section 20 would then be dedicated to the Devonian formation,

~~Pool.~~

(5) That the applicant should be required 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 approval of the subject application will permit the drilling of the proposed well and will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Hilliard Oil & Gas, Inc., is hereby authorized to directionally drill its Hanson Bonds Well No. 1 located 1650 feet from the North line and 330 feet from the East line of Section 20, Township 9 South, Range 35 East, to a Devonian bottom hole location within 100 feet of a point 1325 feet from the North line and 430 feet from the East line of said Section 20.

~~PROVIDED HOWEVER~~ ^{FURTHER} 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, 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.

~~PROVIDED HOWEVER~~ that prior to such directional drilling, applicant shall directionally survey said well from the depth of 11,800 feet to the surface and shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe Office of the Division, Box 2088, Santa Fe, New Mexico 87501.

(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 the ~~40-acre tract under which said well is bottomed~~ ^{40-acre tract under which said well is bottomed} shall be dedicated to the Devonian formation, ~~Pool,~~ and all of Section 20 shall be dedicated to the ~~formation,~~ ^{said well in the Devonian formation. Pool.}

(4) 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.