

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 9740
ORDER NO. R-9078

APPLICATION OF HONDO OIL AND GAS
COMPANY FOR A HORIZONTAL DIRECTIONAL
DRILLING PILOT PROJECT, SPECIAL
OPERATING RULES THEREFOR, SIMULTANEOUS
DEDICATION AND A NON-STANDARD OIL PRORATION
UNIT, LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 6, 1989, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 14th day of December, 1989, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Hondo Oil and Gas Company, seeks the formation of a 159.40-acre non-standard oil spacing and proration unit in the Scharb-Bone Spring Pool comprising Lots 1 and 2 and the S/2 NE/4 (NE/4 equivalent) of Section 6, Township 19 South, Range 35 East, NMPM, Lea County, New Mexico, for the purpose of initiating a horizontal directional drilling pilot project therein and to further promulgate special pool rules and provisions within said pilot project area including the designation of a prescribed area limiting the horizontal displacement of the wellbore and special allowable considerations.

(3) The applicant proposes to re-enter the previously plugged and abandoned Pennzoil United Inc. Atlantic State Well No. 1, to be redesignated as the State "AZ" Well No. 3, located 660 feet from the North and East lines (Unit A) of said Section 6.

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(4) The proposed pilot project area is within the boundaries of the Scharb-Bone Spring Pool which is governed by Special Rules and Regulations, as promulgated by Division Order No. R-2589, as amended, which provides for 80-acre spacing and proration units with wells to be located within 200 feet of the center of a governmental quarter-quarter section or lot.

(5) The applicant further proposes to re-enter, complete and drill said well in the following unconventional manner:

Drill through the surface plugs and clean wellbore out to the top of the 9 5/8-inch intermediate casing stub at approximately 1050 feet; tie said intermediate casing string back to the surface casing prior to drilling out the remaining plugs below this point to a depth of approximately 10,595 feet. The Bone Spring will then be evaluated to determine the proper direction for a lateral step-out. A cement plug will be placed at the kick-off point and a 90-degree turn to horizontal utilizing a medium radius curve (500 foot radius) will be drilled in a southwesterly direction, wherefrom a 1500 feet horizontal section will complete the drilling portion of the wellbore. A 5 1/2-inch pre-perforated string of casing will be placed in the horizontal portion of the wellbore. At the base of the curved portion of the wellbore, an inflatable packer will be placed and the remaining 5 1/2-inch (non-perforated portion) casing will be cemented back to an adequate depth.

(6) To allow for "flexibility", to minimize risk and maximize the success of such a completion, the applicant is requesting the designation of a prescribed area limiting the horizontal displacement of the wellbore such that the producing interval of the well cannot be any closer than 330 feet to the NE/4 (equivalent) quarter section lines of said Section 6.

(7) Testimony and evidence in this case indicate that the applicant has given proper notice of the application to all offsetting operators and no such offsetting operators or interested parties appeared and/or objected to the proposed drilling and horizontal completion of this well or of the proposed designated prescribed area for such well.

(8) The applicant testified that this type of well completion should increase the effective drainage area in the Bone Spring formation and should thereby maximize recoverable reserves, increase productivity in said zone by intersecting more natural fractures and porosity, and improve the economics of such a completion, all resulting in the recovery of a substantially greater amount of oil from the Bone Spring formation than would be recovered by a conventional well completion, thereby preventing waste.

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(9) Currently there is an existing Scharb-Bone Spring Pool producing well within the proposed project area operated by the applicant, this being the State "AZ" Well No. 2 located 1980 feet from the North line and 660 feet from the East line (Unit H) of said Section 6, to which Lot 1 and the SE/4 NE/4 are dedicated.

(10) Since the project area consists of essentially two 80-acre proration units, the applicant proposed that the project be assigned an allowable of 797 barrels of oil per day, which is equal to the normal allowable assigned to a standard 80-acre oil proration unit in the Scharb-Bone Spring Pool times 1.9925 or the product of 159.40 divided by 80.

(11) For the purpose of assignment of allowable and the reporting of production, the applicant proposes to simultaneously dedicate the Bone Spring production from the NE/4 (equivalent) of said Section 6 to the proposed horizontal well and to the State "AZ" Well No. 2.

(12) The non-standard proration unit should not become effective until such time as the horizontal wellbore is completed and placed on production and will cease at such time as the horizontal wellbore is properly plugged and abandoned.

(13) The applicant should be required to determine the actual location of the kick-off point prior to directional drilling operations. Also, the applicant should notify the supervisor of the Hobbs District Office of the Division of the proposed direction of the deviated hole and of the date and time of commencement of the directional drilling in order that the same may be witnessed.

(14) The applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of the drilling operations on the well and submit a copy of said survey to both the Santa Fe and Hobbs Offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The application of Hondo Oil and Gas Company for a horizontal directional drilling pilot project consisting of Lots 1 and 2 and the S/2 NE/4 (NE/4 equivalent) of Section 6, Township 19 South, Range 35 East, NMPM, Scharb-Bone Spring Pool, Lea County, New Mexico, forming a non-standard 159.40-acre oil spacing and proration unit is hereby approved.

(2) The applicant is further authorized to re-enter the previously plugged and abandoned Pennzoil United, Inc. State Well No. 1, to be redesignated the State "AZ" Well No. 3, located 660 feet from the North and East lines (Unit A) of said Section 6 in the unconventional manner as described in Finding Paragraph No. (5) of this order.

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(3) The lateral extent of the horizontal wellbore shall be such that the producing interval of said well can be no closer than 330 feet to the boundary of the assigned spacing and proration unit.

(4) The aforementioned 159.40-acre non-standard oil proration unit shall be simultaneously dedicated to the proposed well and to the existing State "AZ" Well No. 2 located 1980 feet from the North line and 660 feet from the East line (Unit H) of said Section 6; production from the Bone Spring formation from both wells may be produced in any proportion.

(5) Said unit shall be assigned a 1.9925 acreage dedication factor to be assessed toward the normal allowable for said pool.

(6) This non-standard proration unit shall not become effective until such time as the horizontal wellbore is completed and placed on production and shall cease at such time as the horizontal well is properly plugged and abandoned. At all other times the State "AZ" Well No. 2 shall be dedicated to its current proration unit comprising Lot 1 and the SE/4 NE/4 (E/2 NE/4 equivalent).

(7) The kick-off point for the proposed horizontal well shall be determined prior to directional drilling. Also, the operator shall notify the supervisor of the Hobbs District Office of the Division of the proposed direction of the deviated hole and of the date and time the directional drilling commences in order that the same may be witnessed.

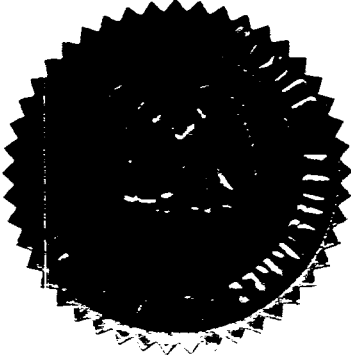
(8) The applicant shall conduct a directional drilling survey on the well during or after completion of horizontal drilling operations.

(9) Upon completion of the horizontal drilling operations on the well, the applicant shall file a copy of said directional drilling survey along with a final report specifying the depth and location of the terminance of said horizontal wellbore to both the Santa Fe and Hobbs Offices of the Division.

(10) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

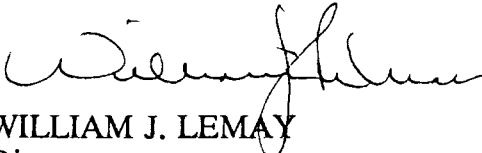
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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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

11/30/89
12/1/89
CASE NO. 9740
ORDER NO. R-9028
12/7/89

APPLICATION OF HONDO OIL AND GAS
COMPANY FOR A HORIZONTAL DIRECTIONAL
DRILLING PILOT PROJECT, SPECIAL
OPERATING RULES THEREFOR, SIMULTANEOUS
DEDICATION AND A NON-STANDARD OIL PRORATION
UNIT, LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 6, 1989, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this _____ day of December, 1989, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Hondo Oil and Gas Company, seeks the formation of a 159.40-acre non-standard oil spacing and proration unit in the Scharb-Bone Spring Pool comprising Lots 1 and 2 and the S/2 NE/4 (NE/4 equivalent) of Section 6, Township 19 South, Range 35 East, NMPM, Lea County, New Mexico, for the purpose of initiating a horizontal drilling pilot project therein and to further promulgate special pool rules and provisions within said pilot project area including the designation of a prescribed area limiting the horizontal displacement of the wellbore and special allowable considerations.

(3) The applicant proposes to re-enter the previously plugged and abandoned Pennzoil United Inc. Atlantic State Well No. 1, to be redesignated as the State "AZ" Well No. 3, located 660 feet from the North and East lines (Unit A) of said Section 6.

(4) The proposed pilot project area is within the boundaries of the Scharb-Bone Spring Pool which is governed by Special Rules and Regulations, as promulgated by Division Order No. R-2589, as amended, which provides for 80-acre spacing and proration units with wells to be located within 200 feet of the center of a governmental quarter-quarter section or lot.

(5) The applicant further proposes to re-enter, complete and drill said well in the following unconventional manner:

Drill ^{through} ~~out~~ the surface plugs and clean wellbore out to the top of the 9 5/8-inch intermediate casing stub at approximately 1050 feet; ^{casing} tie said intermediate string back to the surface ^{Bone Spring} prior to drilling out the remaining plugs below this point to a depth of approximately 10,595 feet. The Bone Spring will then be evaluated to determine the proper direction for a lateral step-out. A cement plug will be placed at the kick-off point and a 90-degree turn to horizontal utilizing a medium-radius curve (500 foot radius) will be drilled in a southwesterly direction, ^{wherefrom} ~~whereby~~ a 1500-foot horizontal section will complete the drilling portion of the wellbore. A 5 1/2-inch pre-perforated string of casing will be placed in the horizontal portion of the wellbore. At the base of the curved portion of the wellbore, an inflatable packer will be placed and the remaining 5 1/2-inch (non-perforated portion) casing will be cemented back to an adequate depth.

(6) To allow for "flexibility", to minimize risk and maximize the success of such a completion, the applicant is requesting the designation of a prescribed area limiting the horizontal displacement of the wellbore such that the producing interval of the ~~well~~ ^{well} cannot be any closer than 330 feet to the NE/4 (equivalent) quarter section lines of said Section 6.

(7) Testimony and evidence in this case indicates that the applicant has given proper notice of the application to all offsetting operators and no such offsetting operators or interested parties appeared and/or objected to the proposed drilling and horizontal completion of this well or of the proposed designated prescribed area for such well.

(8) The applicant testified that this type of well completion should increase the effective drainage area in the Bone Spring formation and should thereby maximize recoverable reserves, increase productivity in said zone by intersecting more natural fractures and porosity, and improve the economics of such a completion, all resulting in the recovery of a substantially greater amount of oil ~~from~~ ^{from} the Bone Spring formation than would normally be recovered by a conventional well completion, thereby preventing waste.

(9) Currently there is an existing Scharb-Bone Spring Pool producing well within the proposed project area operated by the applicant, this being the State "AZ" Well No. 2 located 1980 feet from the North line and 660 feet from the East line (Unit H) of said Section 6, ~~to~~ which Lot 1 and the SE/4 NE/4 are dedicated.

(10) Since the project area consists of essentially two 80-acre proration units, the applicant proposed that the project be assigned an allowable of 797 barrels of oil per day, which is equal to the normal allowable assigned to a standard 80-acre oil proration unit in the Scharb-Bone Spring Pool times ~~1.9925~~ ^{the production} or 159.40 divided by 80.

(11) For the purpose of assignment of allowable and the reporting of production, the applicant proposes to simultaneously dedicated the Bone Spring production from the NE/4 (equivalent) of said Section 6 to the proposed horizontal well and to the State "AZ" Well No. 2.

(12) The non-standard proration unit should not become effective until such time as the horizontal wellbore is completed and placed on production and will cease at such time as the horizontal wellbore is properly plugged and abandoned.

(13) The applicant should be required to determine the actual location of the kick-off point prior to directional drilling operations. Also, the applicant should notify the supervisor of the Hobbs District Office of the Division of the proposed direction of the deviated hole and of the date and time of the ^{commencement of} directional drilling in order that the same may be witnessed.

(14) The applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of the drilling operations on the well and submit a copy of said survey to both the Santa Fe and Hobbs Offices of the Division.

IT IS THEREFORE ORDERED THAT:

(1) The application of Hondo Oil and Gas Company for a horizontal directional drilling pilot project consisting of Lots 1 and 2 and the S/2 NE/4 (NE/4 equivalent) of Section 6, Township 19 South, Range 35 East, NMPM, Scharb-Bone Spring Pool, Lea County, New Mexico, forming a non-standard 159.40-acre oil spacing and proration unit is hereby approved.

(2) The applicant is further authorized to re-enter the previously plugged and abandoned Pennzoil United, Inc. State Well No. 1, to be redesignated the State "AZ" Well No. 3, located 660 feet from the North and East lines (Unit A) of said Section 6 in the unconventional manner as described in Finding Paragraph No. (5) of this order.

(3) The lateral extent of the horizontal wellbore shall be such that the producing interval of said well can be no closer than 330 feet to the ~~NE/4 (equivalent) quarter-section lines of said Section 6.~~ *boundary of the assigned spacing and proration unit.*

(4) The aforementioned 159.40-acre non-standard oil proration unit shall be simultaneously dedicated to the proposed well and to the existing State "AZ" Well No. 2 located 1980 feet from the North line and 660 feet from the East line (Unit H) of said Section 6, production from the Bone Spring formation from both wells ~~shall~~ *may* be produced in any proportion.

(5) Said unit shall be assigned a 1.9925 acreage dedication factor to be assessed toward the normal allowable for said pool.

(6) This non-standard proration unit shall not become effective until such time as the horizontal wellbore is completed and placed on production and shall cease at such time as the horizontal well is properly plugged and abandoned. ~~Until and at such time as~~ *At all other times* the State "AZ" Well No. 2 shall be dedicated to its current proration unit comprising Lot 1 and the SE/4 NE/4 (E/2 NE/4 equivalent).

(7) The kick-off point for the proposed horizontal well shall be determined prior to directional drilling. Also, the operator shall notify the supervisor of the Hobbs District Office of the Division of the proposed direction of the deviated hole and of the date and time ~~of~~ *commences* the directional drilling in order that the same be witnessed.

(8) The applicant shall conduct a directional drilling survey on the well during or after completion of horizontal drilling operations.

(9) Upon completion of the horizontal drilling operations on the well, the applicant shall file a copy of said directional drilling survey along with a final report specifying the depth and location of the terminance of said horizontal wellbore to both the Santa Fe and Hobbs Offices of the Division.

(10) 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

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