

State of New Mexico



JIM BACA
COMMISSIONER



Commissioner of Public Lands

November 21, 1985

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

Express Mail Delivery Use:
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504

Re: In the matter of an application by Monsanto Oil Company for approval
of a non-standard location in Section 36, T-21S, R-23E, Eddy County.
Case No. 8758, Docket 36-85

Attn: Mr. Michael Stogner - Examiner

Gentlemen:

Review of maps and production data concerned with the Indian Basin Field shows that the areal extent of the Cisco reservoir is being reduced by water encroachment due to withdrawal of gas and condensate from the reservoir. The evidence strongly suggests that the water encroachment tends to follow the structural configuration of the field. It is thought that this pattern also reflects the topographic configuration at time of deposition.

Data suggests that the greatest cumulative recoveries in the field will be achieved by the westernmost wells in the field because they are structurally highest in a relatively homogeneous reservoir. Under these conditions, the more gas produced by up-dip wells, the more rapid the water encroachment. Under these conditions, down-dip wells could be denied produceable reserves which could be produced from downdip locations under more controlled conditions. In the case of the Monsanto 1 Lowe-State Well, Section 36, T-21S, R-23E, Eddy County, the location of the well could result in the loss of up to 33% of reservoir area due to premature water encroachment. This condition would also cause significant loss of income to beneficiaries of the tract, held in trust by the State of New Mexico.

If a well were drilled in a non-standard location in the southwesternmost corner of Section 36, maximum benefit from this lease would be assured for both lessee and beneficiaries. It is conservatively estimated that a 35% increase of cumulative production from this lease would result from drilling of a well 330 feet from south and west lines of Section 36. Increase royalty income would be of significant benefit to the school fund.

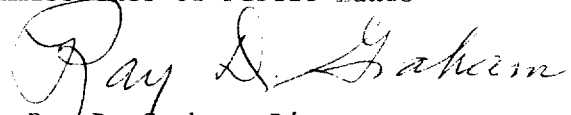
In order to protect the beneficiaries correlative rights, the Commissioner of Public Lands supports the application and recommends approval of a non-standard location in the southwestern corner. A well drilled to the Morrow at this location might

November 21, 1985

also encounter additional gas, which would further increase the salvage value of the lease.

Very truly yours,

Jim Baca
Commissioner of Public Lands

A handwritten signature in cursive script, reading "Ray D. Graham". The signature is written in dark ink and is positioned above the typed name of the signatory.

By: Ray D. Graham, Director
Oil and Gas Division
A/C 505-827-5744

JB: RDG: cw

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*NOT LICENSED IN NEW MEXICO

December 6, 1985

Michael E. Stogner
Hearing Examiner
New Mexico Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico 87501

HAND DELIVERED

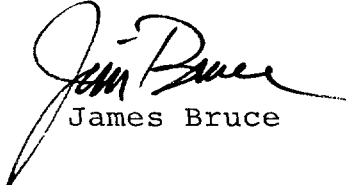
Re: Case No. 8758, Application of
Monsanto Oil Company for an
Unorthodox Gas Well Location,
Eddy County, New Mexico.

Dear Mr. Stogner:

Enclosed is a copy of Monsanto's proposed order in the above
matter.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY


James Bruce

JGB:jr
Enclosure

cc: William F. Carr, Esq. w/encl.
Hal H. Crabb III, w/encl.

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. 8758
Order No. R-_____

APPLICATION OF MONSANTO OIL COMPANY
FOR AN UNORTHODOX GAS WELL LOCATION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on November 22, 1985, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this ____ day of December, 1985, 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, Monsanto Oil Company, seeks approval of an unorthodox gas well location 330 feet from the South line and 330 feet from the West line of Section 36, Township 21 South, Range 23 East, NMPM, Indian Basin-Upper Pennsylvanian and Indian Basin-Morrow Gas Pools, to test the Pennsylvanian and Morrow formations, Eddy County, New Mexico.

(3) That all of said Section 36 is to be dedicated to the well.

(4) That Amoco Production Company, an offset operator to the West with interests in the Indian Basin-Upper Pennsylvanian Gas Pool in Section 35 of Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico, has appeared at the hearing and objected to the proposed unorthodox location.

(5) That neither Arco, an offset operator directly to the south, nor Continental Oil Company, a working interest owner to the southwest of the aforesaid unorthodox location appeared and opposed the location although each company was directly notified of the hearing by Monsanto.

(6) That the Lowe State Well No. 1 in said Section 36, which is located at a standard location 1712 feet from the West line and 1995 feet from the North line of said Section 36, is no longer capable of commercial production.

(7) That to re-enter and re-work the Lowe State Well No. 1 to cause it to be commercially productive is not feasible.

(8) That applicant's proposed well is to be a replacement well for the Lowe State Well No. 1.

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

(10) That water is encroaching upon the Upper Pennsylvanian formation from the north and east, which is causing the gas reserves under said Section 36 to migrate in a southwesterly direction and out of the proration unit. There are no recoverable hydrocarbons in the area of water encroachment.

(11) That due to the migration of gas reserves, a well at a standard location will not afford the mineral owners the opportunity to effectively and efficiently drain reserves underlying Section 36.

(12) That there are approximately 400 productive acres remaining which underly said Section 36.

(13) That the Pennsylvanian formation is homogeneous.

(14) That as of January 1, 1975, the Lowe State No. 1 in said Section 36 had produced 11.3 BCF, and that as of the same date: the offset wells in Sections 30 and 31, Township 21 South, Range 24 East have produced 11.6 and 11.2 BCF respectively; that the offset well in Section 6, Township 22 South, Range 24 East had produced 12.1 BCF; that the offset wells in Sections 1 and 2, Township 22 South, Range 23 East have produced 12.4 and 11.2 BCF respectively; and that the offset wells in Sections 35, 26 and 25, Township 21 South, Range 23 East, had produced 11.9, 11.8 and 7.0 BCF respectively, indicating that lower ultimate recovery from the subject well was not due to inferior reservoir producing characteristics.

(15) That as of January 1, 1985, the Lowe State Well No. 1 in said Section 36 had produced 17 BCF compared to 25.9 BCF produced by Amoco's west offset well in Section 35, confirming

that the inability of the subject well to produce commensurately is due to no other factor but water encroachment.

(16) That weighing the evidence a penalty of 33 1/3% at the proposed unorthodox location is just and reasonable.

(17) That to offset any advantage gained from a well at an unorthodox location, production from the well should be limited to the Upper Pennsylvanian and Morrow formations.

(18) That there was no evidence that a well at the unorthodox location with respect to production from the Morrow formation would adversely affect the correlative rights of offset operators.

(19) That the Morrow formation is a salvage target for the well since the evidence shows that other Morrow wells in the area have very low producing capability.

(20) That pursuant to a letter dated November 21, 1985, the State of New Mexico supports Monsanto Oil Company's application in this case.

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

WHEREFORE ORDERED.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

R. L. STAMETS
Director

S E A L

CAMPBELL & BLACK, P.A.

LAWYERS

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December 10, 1985

Mr. Michael Stogner
Hearing Examiner
Oil Conservation Division
New Mexico Department of
Energy and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87504-2088

Re: Oil Conservation Division Case No. 8758: Application
of Monsanto Company for an Unorthodox Gas Well Location,
Dual Completion and Simultaneous Dedication, Eddy County,
New Mexico.

Dear Mr. Stogner:

Pursuant to your request of November 21, 1985, we enclose a
proposed Order of the Division in the above-referenced case for
Amoco Production Company.

If you need anything further from Amoco to proceed with your
decision in this matter, please advise.

Very truly yours,

William F. Carr
William F. Carr

WFC/cv
enclosure

cc: Owen Lopez, Esq.
(w/enclosure)

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. 8758
Order No. R-

APPLICATION OF MONSANTO COMPANY
FOR AN UNORTHODOX GAS WELL LOCA-
TION, DUAL COMPLETION AND SIMUL-
TANEOUS DEDICATION, EDDY COUNTY,
NEW MEXICO.

PROPOSED ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on November 21, 1985, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this _____ day of December, 1985, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and both 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, Monsanto Company, seeks approval of an unorthodox gas well location for a well to be located 330 feet from the South and West lines of Section 36, Township 21 South, Range 23 East, N.M.P.M., to be dually completed in the Cisco formation (Indian Basin-Upper Pennsylvanian Gas Pool), and the Morrow formation (Indian Basin-Morrow Gas Pool), Eddy County, New Mexico.

(3) That All of said Section 36 is to be dedicated ^{*in both zones*} to the well.

(4) That said well would be the second well drilled in Section 36, applicant's Lowe State No. 1 Well, located in Unit F of Section 36, having been completed for Cisco and Morrow formation gas production in 1964.

(5) That the Monsanto Lowe State No. 1 Well is no longer capable of commercial production due to water encroachment.

(6) ~~That~~ The proposed well would be the only producing well on the 640-acre spacing unit, and that portion of the application ^{which} ~~that~~ seeks simultaneous dedication of wells on this unit is unnecessary and therefore should be ~~denied~~ dismissed.

(7) ~~That~~ ^{gas well} A well on said unorthodox location will better enable applicant to produce the gas underlying the proration unit in both zones.

~~(8) That the Commissioner of Public Lands has endorsed the drilling of the proposed well in said Section 36, but has not taken a position as to whether or not the proposed well's producing rate should be penalized due to the advantage a well at the proposed location would gain on offsetting spacing or proration units.~~

(9) That an offsetting operator has objected to the proposed location.

(10) That the evidence established that although the Indian Basin-Upper Pennsylvanian Gas Pool does not appear to be a water dry reservoir, part of Section 36 in the Cisco formation is no longer capable of commercial production due to water encroachment, and that the Cisco formation under Section 36 is thinner and it is otherwise less productive than this interval in the offsetting tracts to the South and West.

(11) That both the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Morrow Gas Pool are governed by Special Pool Rules which provide for 640-acre gas well spacing with wells located 1650 feet from the outer boundary of the unit.

(12) That a well at the proposed location is 80% closer to the South line of said Section 36 than permitted by Division Rules and Regulations in both the Cisco formation (Indian Basin-Upper Pennsylvanian Gas Pool) and the Morrow formation (Indian Basin-Morrow Gas Pool).

(13) That a well at the proposed location is 80% closer to the West line of said Section 36 than permitted by Division Rules and Regulations in both the Cisco formation (Indian Basin-Upper Pennsylvanian Gas Pool) and the Morrow formation (Indian Basin-Morrow Gas Pool).

(14) That a well at the proposed location will have an area of drainage in the Cisco and Morrow formations which extends an additional 210 net acres outside Section 36, an amount of acreage equivalent to 33% of a standard proration unit in both the Indian Basin-Upper Pennsylvanian Gas Pool and the Indian Basin-Morrow Gas Pool.

(15) That to offset the advantage gained over the protesting offset operator, production from the well at the proposed unorthodox location should be limited from the Cisco and Morrow formations.

(16) That such limitation should be based upon the variation of the location from a standard location and the 210 net acre encroachment described in Finding No. (14) above, and may be accomplished by assigning a well at the proposed location an allowable limitation factor of 0.36 (20% East/West factor plus 20% North/South factor plus 67% net-acre factor divided by 3).

(17) That the aforesaid production limitation factor should be applied against the well's monthly allowable as set by the Division for both the Cisco formation (Indian Basin-Upper Pennsylvanian Gas Pool) and the Morrow formation (Indian Basin-Morrow Gas Pool).

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

IT IS THEREFORE ORDERED:

(1) That an unorthodox gas well location for a well to be dually completed in the Cisco and Morrow formations is hereby approved for the Monsanto Company well to be located at a point 330 feet from the South and West lines of Section 36, Township 21 South, Range 23 East, N.M.P.M., Indian Basin Upper Pennsylvanian Gas Pool and Indian Basin Morrow Gas Pool, Eddy County, New Mexico.

(2) That All of said Section 36 shall be dedicated to the above-described well.

(3) That said well is hereby assigned a production limitation factor of 0.36 in the Cisco and the Morrow formations.

(4) That the aforesaid production limitation factor shall be applied against the well's monthly allowable as set by the Division in the Cisco formation (Indian Basin-Upper Pennsylvanian Gas Pool) and the Morrow formation (Indian Basin-Morrow Gas Pool).

(5) That the application of Monsanto Company for simultaneous dedication is hereby denied.

- 4 -

Case No. 8758

Order No. R-

(6) 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

R. L. STAMETS, Director

S E A L



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

February 27, 1986

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Mr. Owen Lopez
Hinkle, Cox, Eaton, Coffield
& Hensley
Attorneys at Law
Post Office Box 2068
Santa Fe, New Mexico

Re: CASE NO. 8758
ORDER NO. R-3162

Applicant:

Monsanto Company

Dear Sir:

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

Sincerely,

R. L. STAMETS
Director

RLS/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other William F. Carr