Release Dut: November 3, 1987



105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210 TELEPHONE (505) 748-1471

S P VATES PRESIDENT

De DeC OL - by Roy John

JOHN A VATES VICE PRESIDENT

B. W. HARPER SEC. - TREAS.

NSL-2438 RULE-104 MI)

October 13, 1987

New Mexico Oil Conservation Division P. O. Box 2088

Santa Fe, NM 87501

ATTENTION: Mr. William LeMay

30 Acre dadicata N/2 Sectur 30 Undergrated Foor Ranch Pre-Permian Cas Poul

RE: Unorthodox location for Dragonfly State Unit #1 660' FNL and 990' FWL of Section 30-T9S-R27E Chaves County, New Mexico

Dear Sir:

Yates Petroleum Corporation respectfully requests an administrative approval for a proposed unorthodox location as provided for under NMOCD Rule 104F.

Our preferred location for this well is 660' FNL and 990' FWL. Our reason for requesting this non-standard location is geological (please note attached Exhibits 1 and 2).

Enclosed please find a copy of the lease map showing offsetting lease operators and a topographical map of the area. Offsetting lease operators have been notified of our intentions by certified mail, via a xerox copy of this letter, along with a waiver stating that they have no objections.

Formations we expect to drill through area: San Andres, Glorieta, Yeso, Abo, Wolfcamp, Pennsylvanian and Ordivician. We expect to TD in Precambrian.

If you should have any questions concerning this matter, please do not hesitate to call. Thank you.

Very truly yours,

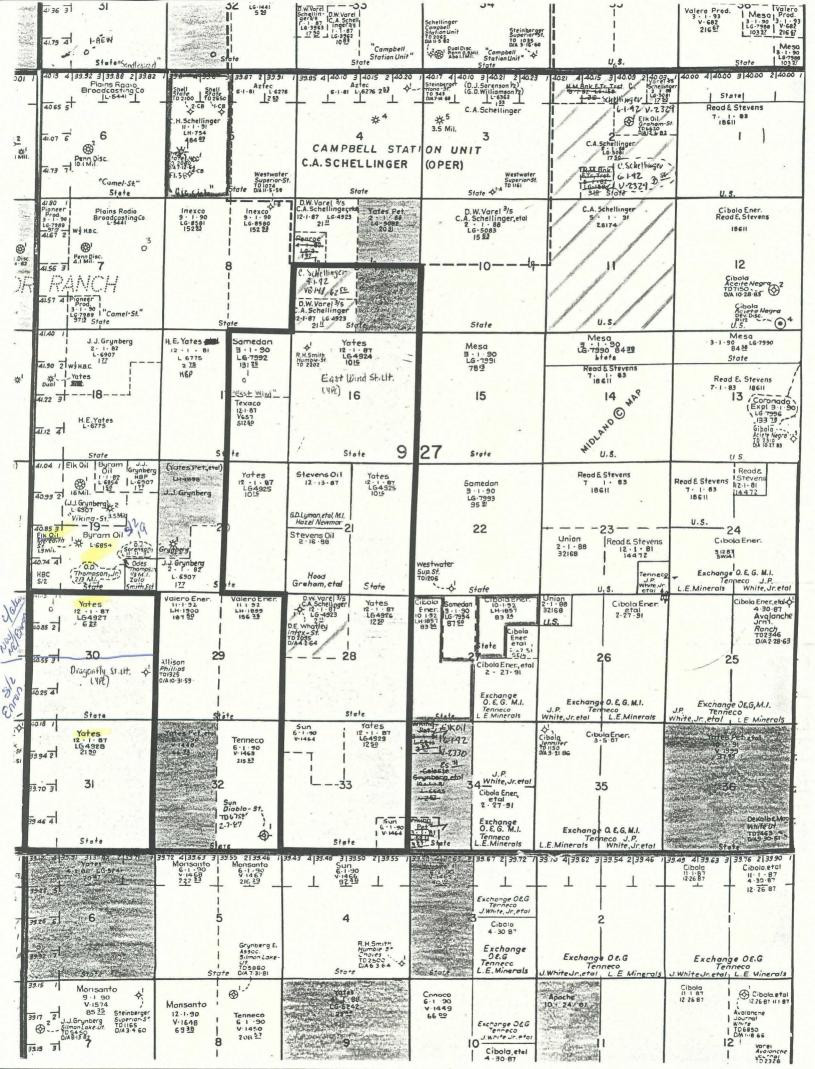
YATES PETROLEUM CORPORATION

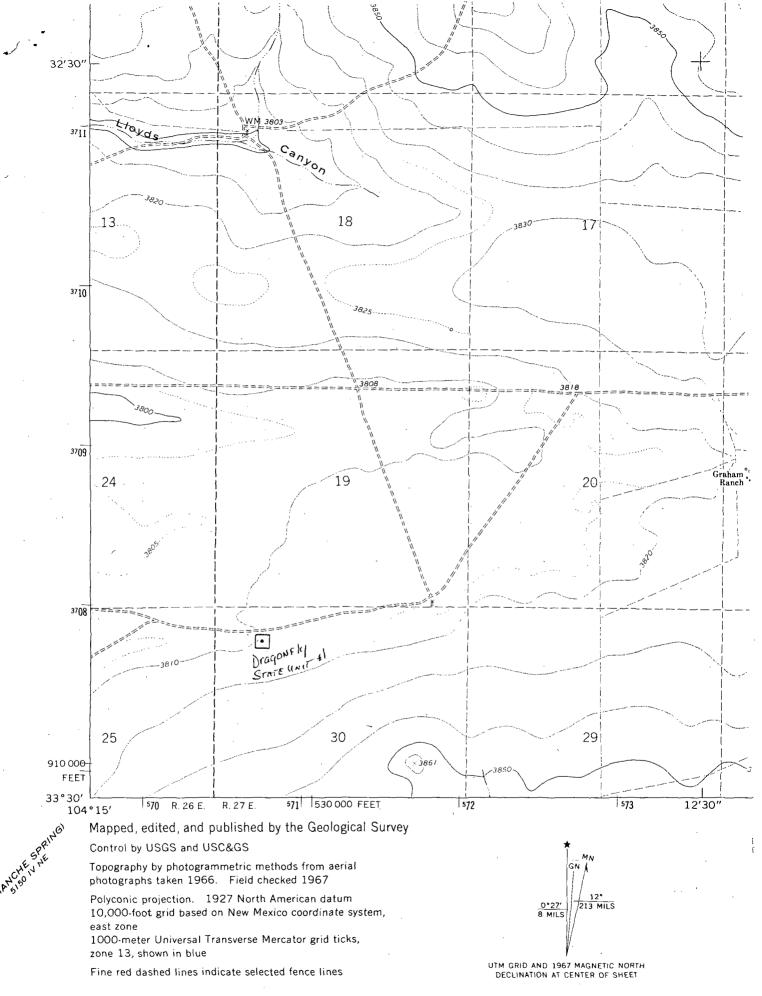
Regulatory Secretary

rj

Enclosures

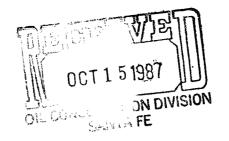
cc: Elk Oil Company Enron Oil & Gas Company 1st Interstate of Lea County, Trustees for the Estate of W. K. Byram







105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210 TELEPHONE (505) 748-1471



S. P. YATES
PRESIDENT

JOHN A. YATES
VICE PRESIDENT

B. W. HARPER
SEC. - TREAS.

October 13, 1987

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

ATTENTION: Mr. William LeMay

RE: Unorthodox location for Dragonfly State Unit #1 660' FNL and 990' FWL of Section 30-T9S-R27E Chaves County, New Mexico

Dear Sir:

Enclosed you will find a copy of the certification showing that I have notified the offset operators of our intentions on the captioned unorthodox location with a xerox copy of the attached letter.

Thank you.

Very truly yours,

YATES PETROLEUM CORPORATION

Regulatory Secretary

rj

Enclosures

P-580 493 671

RECORD TOTAL CERTIFIED MAIL THE COVERAGE PROVIDED TOTAL STORAGHOUSE MAIL

(Coe Reverse) Sent to Elk Oil Company P. O. Box 310 Roswell, NM 88201 Mr.je Joseph J. Kelly lertified Fee pecial Delivery Fee estricted Delivery Fee Hirr Teceipt showing whom and Date Delivered Thirm Rose pt showing to whom, ite, and Address of Delivery ITAL Postage and Fees Postmark or Date October 14, 1987 Unortho letter - Dragonfly

P-580 493 670:

RECEIPT FOR CERTIFIED MAIL-NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse)

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P-580 493 669

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(See Reverse) 1st Interstate of Lea County Trustees for the Estate of Www.Kod Byram P.O. Box 147
P.O. State and ZIP Code
Hobbs, NM 88240 Postage Certified Fee Special Delivery Fee | Restricted Delivery Final Return Receipt showing to whom and Date Delivered Return Receipt chowing to whom. Date and Address of Delivery TOTAL Postage and Fees Postmark or Date October 1 , 1987 Unortho letter for Dragonfly State Unit #1



S. P. YATES
PRESIDENT

JOHN A. YATES
VICE PRESIDENT

B. W. HARPER
SEC. - TREAS.

105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210 TELEPHONE (505) 748-1471

OCT 3 0 1987

OIL CONSERVATION DIVISION
SANTA FE

October 13, 1987

RE: Unorthodox location for Dragonfly State Unit #1 660' FNL & 990' FWL of Section 30-T95-R27E Chaves County, New Mexico

Please sign and return one (1) copy to Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, to the attention of Rusty Jernigan, and one (1) copy to the New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501, to the attention of Mr. William LeMay, if you have no objections to the proposed unorthodox location listed above.

WAIVER

As an offset operator, Enron Oil & Gas Company, has no objections to the proposed unorthodox location for the captioned well.

Signature

B. H. MORRISON, Agent and Attorney-in-Fact

Title

10-27-87

Date



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (\$05),748-137 [2]

OIL CONSERV

J. J.

S. P. YATES
PRESIDENT

JOHN A. YATES
VICE PRESIDENT

B. W. HARPER
SEC. - TREAS.

October 13, 1987

RE: Unorthodox location for Dragonfly State Unit #1 660' FNL & 990' FWL of Section 30-T9S-R27E Chaves County, New Mexico

Please sign and return one (1) copy to Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, to the attention of Rusty Jernigan, and one (1) copy to the New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501, to the attention of Mr. William LeMay, if you have no objections to the proposed unorthodox location listed above.

WAIVER

As an offset operator, BYROM OIL COMPANY, has no objections to Yates Petroleum Corporation proposing an unorthodox location no closer than 660' FNL of Section 30, Township 9 South, Range 27 East, Chaves County, New Mexico, provided the spacing unit is a lay down 320, being a N/2 dedication.

BYROM OIL COMPANY

Signature

7//A

November 16, 1987

ELK OIL COMPANY **BOX 310** ROSWELL, NEW MEXICO 88201 JOSEPH J. KELL PRESIDENT (505) 623-3190 November 12, 1987 New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501 Attn: Mr. William LeMay Gentlemen: As per instructions of Yates Petroleum on October 13, Section 30, T-9S, R-27E, Chaves County, New Mexico. If there are any questions, please advise. Yours very truly,

1987, enclosed please find copy of Waiver of Unorthodox location for Yates Dragonfly State Unit #1 located in

ELK OIL COMPANY

President

JJK/rm Encl.



PRESIDENT JOHN A. YATES VICE PRESIDENT B. W. HARPER SEC. - TREAS.

105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210 TELEPHONE (505) 748-1471

October 13, 1987

RE: Unorthodox location for ? Dragonfly State Unit #1 5 660' FNL & 990' FWL of Section 30-T9S-R27E Chaves County, New Mexico

Please sign and return one (1) copy to Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, to the attention of Rusty Jernigan, and one (1) copy to the New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501, to the attention of Mr. William LeMay, if you have no objections to the proposed unorthodox location listed above.

WAIVER

As an offset operator, Elk Oil Company, has no objections to Yates Petroleum Corporation proposing an unorthodox location no closer than 660' FNL of Section 30, Township 9 South, Range 27 East, Chaves County, New Mexico, provided the spacing unit is a lay down 320, being a N/2 dedication.

> ELK OIL COMPANY President TitleNovember 12, 1987

Date

GEOLOGICAL CONDITIONS FOR UNORTHODOX LOCATION OF THE

YATES PETROLEUM CORPORATION - DRAGONFLY STATE UNIT #1 660' FNL & 990' FWL, SECTION 30-T9S-R27E CHAVES COUNTY, NEW MEXICO

Yates Petroleum Corporation respectfully requests administrative approval for the unorthodox location of its proposed Dragonfly State Unit #1 to be drilled 660 feet from the North line and 990 feet from the West line of Section 30, Township 9 South, Range 27 East, Chaves County, New Mexico. The north half of section 30 would be dedicated to the well.

The necessity for this unorthodox location is based upon geological conditions.

Exhibit #1 is a land plat showing the proposed location and its relationship to the surrounding acreage in which Yates has full or partial operating rights. The proration unit is outlined in red.

Exhibit #2 is a map depicting the subsurface structure on top of the Pre-Penn Unconformity. The contour interval is 50'. Datum points are noted by circles and the appropriate datum is listed. Well spots colored in red indicate Ordovician producers. The red outline and the green outline marks the termination of the Mississippian formation and the Ordovician respectfully.

The structure map shows a horst block which is completely fault bounded. Throw on the bounding faults varies from nearly four hundred feet to a slight displacement of less than 50'. Erosion on the uplifted area has resulted in areas where Mississippian and Ordovician sediments have been completely stripped away leaving Pennsylvanian sediments lying unconformably on the Precambrian. The Pre-Pennsylvanian section on the remainder of the horst block consists of Ordovician on Precambrian. A normal sequence of Pennsylvanian resting unconformably on Mississippian occurs on the down thrown side of the bounding faults.

Gas production from the uplifted fault block results from porosity development along the unconformity surface (karst topography) of the Ordovician which is truncated against the Precambrian. The bounding faults are also a trapping mechanism that place the tite Mississippian limestone in juxtaposition with the porous Ordovician dolomite. Therefore a definite relationship exists between production and the structural position. The better Ordovician producers occur above a -2200 subsea datum on top of the Ordovician. Pertinent cumulative production from the Ordovician has been noted to substantiate this relationship. The proposed location was chosen in an attempt to duplicate the Ordovician section as encountered by the Meredith State #1, the highest well, with the best cumulative production.

Exhibit #3, crossection A-A' shows the pertinent well tops and intervals picked by correlation. The mapped subcrop patterns and fault locations are further documented.

Note that the gas/water contact exists in a location where Ordovician porosity on the up thrown side of the fault is lateral to Ordovician porosity on the down thrown side of the fault. It seems that to form an effective seal, the up thrown Ordovician section must be in juxtaposition with the Mississippian.

In summary, the proposed unorthodox location is the best allowable location in the north half of Section 30 wich would enable the borehole to encounter the structure at its highest point possible. It is anticipated that structurally high penetration of the Ordovician formation would enhance earlier and greater recovery of gas reserves. The well will be drilled through to the Precambrian to ensure that the complete section is tested. It is believed that approval of this location would prevent waste and protect correlative rights.

The above discussion of geological conditions and Exhibits #1, #2, and #3 were prepared by Leslie Bentz. Leslie Bentz is employed by Yates Petroleum Corporation as a geologist in Artesia, NM. She has testified before and been approved as an expert witness by the Oil Conservation Division of the State of New Mexico.

Leslie Bentz

Listie Bent

Permian Basin Division Geologist Yates Petroleum Corporation

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