



207 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210  
TELEPHONE (505) 748-1331

March 11, 1982

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

Attention: Mr. Richard Stamets

Re: Pending Application for Approval  
of Unorthodox location - Federales  
"BO" #10, E/2 Sec. 32, T17S, R25E,  
Eddy County, New Mexico

990 N  
1980 E

Gentlemen:

Enclosed is the geological information supporting our pending application for administrative approval of the unorthodox location of our proposed Federales "BO" #10 Well. There are no offsetting operators except Yates Petroleum Corporation.

We would appreciate your consideration of this application at your earliest convenience. If you require any further information, please contact me.

Thank you for your assistance.

Yours very truly,

RANDY G. PATTERSON  
Land Department

  
Robert J. Laughlin

RJL/bh  
Enclosure

cc: Mr. W. A. Gressett

NSC-1503

Rule 104 F  
No Offset to  
Immediate to  
Well casing and Perforation  
Formations

S. P. YATES  
PRESIDENT  
MARTIN YATES, III  
VICE PRESIDENT  
JOHN A. YATES  
VICE PRESIDENT  
B. W. HARPER  
SEC. TREAS.

RECEIVED  
MAR 15 1982  
OIL CONSERVATION DIVISION  
SANTA FE

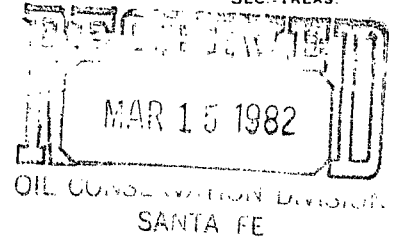
Rec'd  
3-23-82  
DR



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ARTESIA, NEW MEXICO 88210

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PRESIDENT  
MARTIN YATES, III  
VICE PRESIDENT  
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SEC. TREAS.



GEOLOGIC CONDITIONS  
FOR  
UNORTHODOX LOCATION  
OF THE

YATES PETROLEUM CORPORATION #10 FEDERALES "BO"  
990' FNL & 1980' FEL Section 22-T17S-R25E

Yates Petroleum Corporation respectfully requests administrative approval for the unorthodox location of its proposed Federales "BO" #10 to be drilled 990 feet from the North line and 1980 feet from the East line of Section 22, Township 17 South, Range 25 East, Eddy County, New Mexico. The East half of Section 22 would be dedicated to the well.

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

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

Exhibit #2 is a map showing the subsurface structure on top of the Permo-Penn "Antelope Sink Zone". The contour interval is 100 feet. The large well spots are Permo-Penn and Morrow penetrations. Well spots colored in red indicate Permo-Penn

"Antelope Sink Zone" bank facies producers. It may be noted that production from the Permo-Penn is erratic depending on where the borehole finds adequate porosity and permeability.

The structure map shows that there is a small anticline with almost 100 feet of closure below parts of section 14, 15, 22 and 23. The Yates #9 Jackson Estate "BY" is a better than average Permo-Penn producer holding the West half of Section 22. It is anticipated that the proposed unorthodox location would find improved porosity and permeability near the apex of the closure because of higher marine energy when the deposit was laid down and because of earlier hydrocarbon entrapment which would have lessened the effects of deleterious diagenetic cementation.

Exhibit #3 is an annotated excerpt from the Compensated Neutron - Formation Density log of the Yates #9 Jackson Estate "BY" showing the pertinent well tops and intervals picked by correlation.

In summary, the proposed unorthodox location is the best allowable location in the East half of Section 22 which would enable the borehole to encounter a near apical penetration of the Permo-Penn "Antelope Sink Zone" bank facies. It is anticipated that such structurally high penetration of the bank facies would enhance earlier and greater recovery of gas reserves. The well will be drilled through the thin Morrow section in order to check out the basal Pennsylvanian section.

The above discussion of geologic conditions and Exhibits #2 and #3 were prepared by Ray Beck and Exhibit #1 was prepared under his direction. Ray Beck is employed by Yates Petroleum Corporation as a geologist in Artesia, New Mexico, and has been accepted as an expert witness by the New Mexico Oil Conservation Division on numerous occasions.

Verification

STATE OF NEW MEXICO   )  
                                  : ss.  
COUNTY OF EDDY        )

Ray Beck, being first duly sworn upon his oath, deposes and says: that he has read and is familiar with the information and allegations set forth above and that the same are true and correct to the best of his information, knowledge and belief.

Ray Beck  
Ray Beck, Geologist

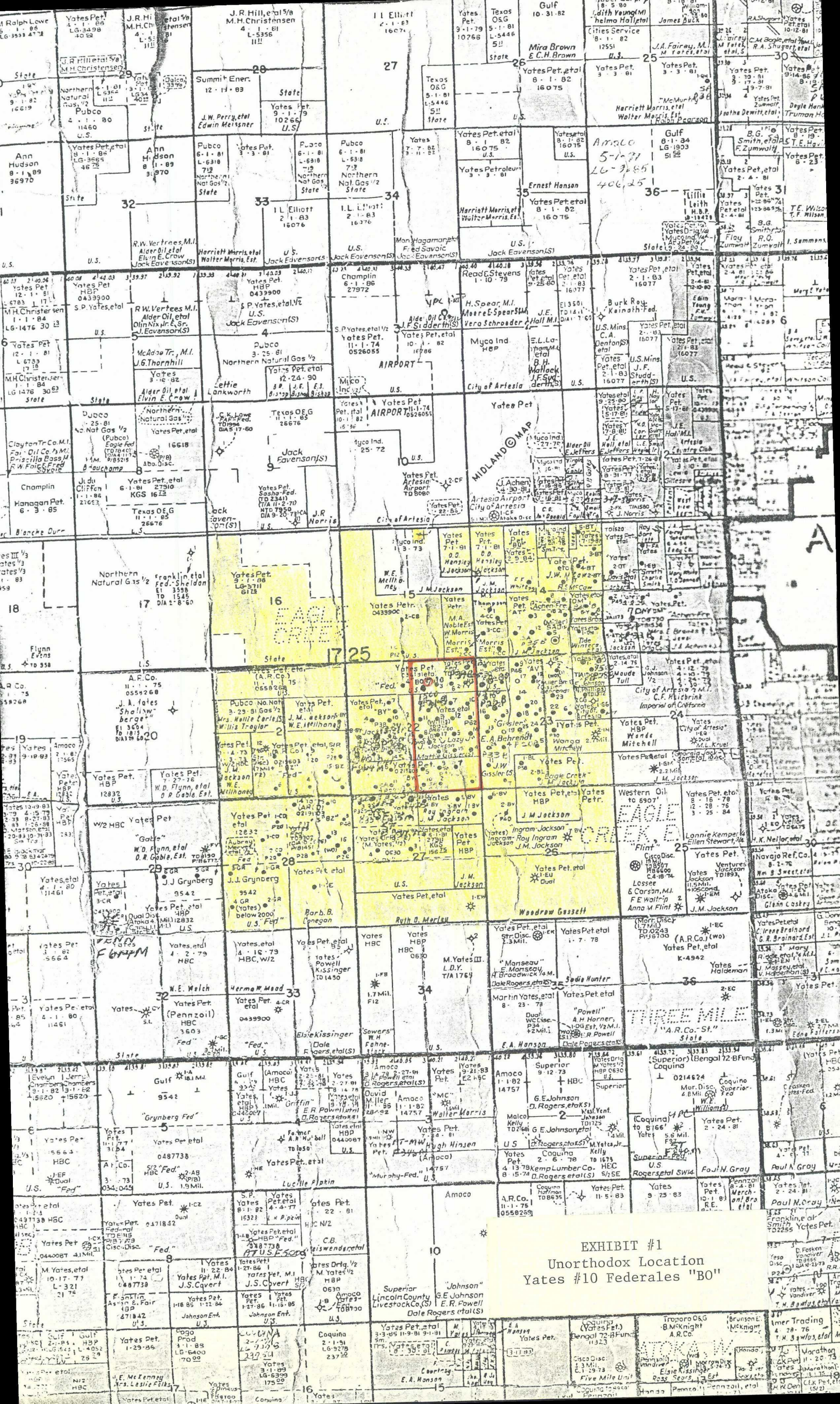
SUBSCRIBED AND SWORN TO AND ACKNOWLEDGED before me this 11th day of March, 1982.

My commission expires:

6-27-84

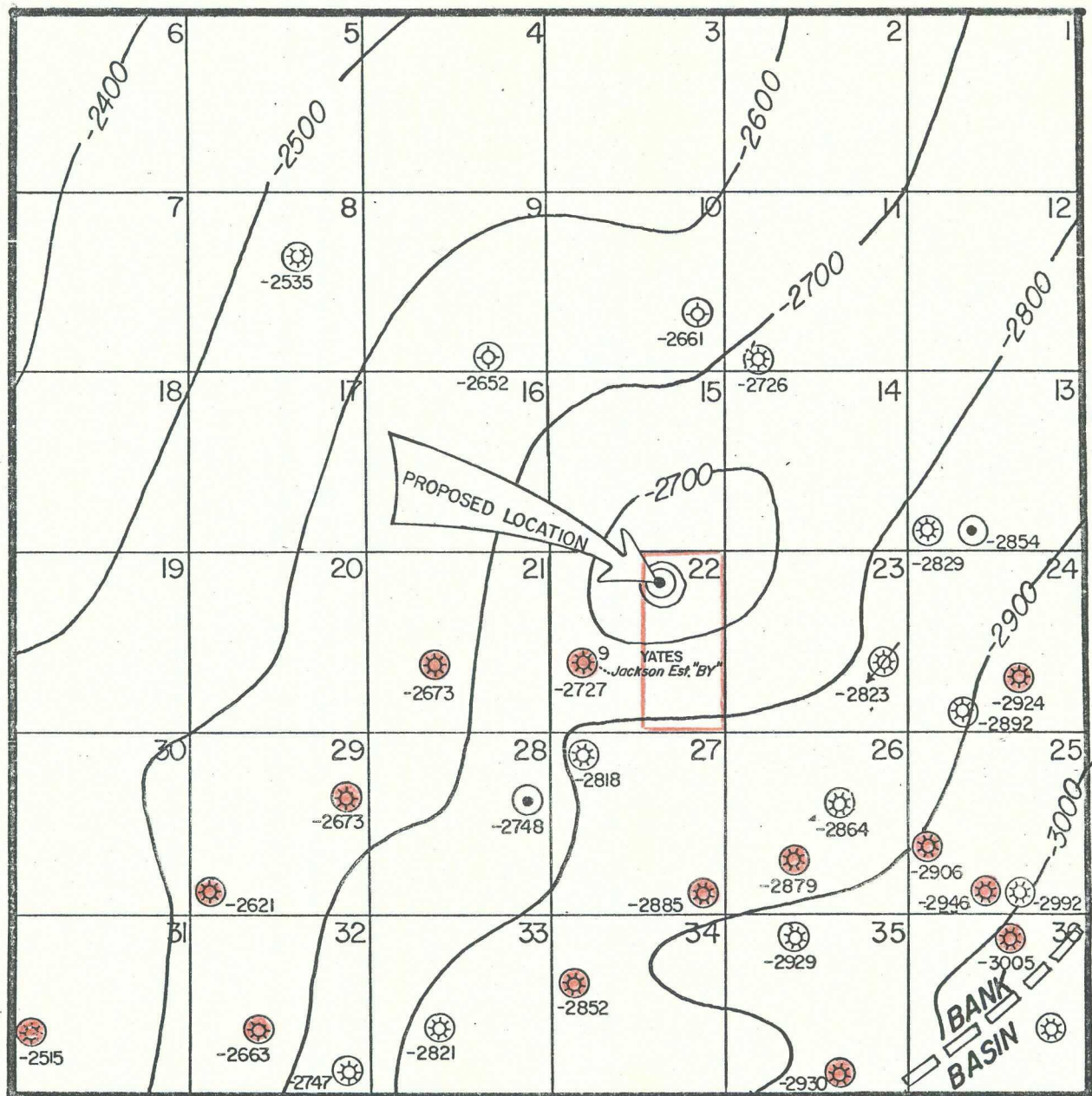
Betty Ruth Hodges  
Notary Public







# R-25-E



T  
17  
S

## LEGEND

- ⊙ Permo-Penn. & Morrow Penetrations
- ⊙-2727 ← Subsea Datum On Top Of Permo-Penn "Antelope Sink Zone"
- ⊗ Permo-Penn Producers
- ⊙ Producing From Horizons Other Than Permo-Penn

—2700— Structural Contours On Top Of Permo-Penn "Antelope Sink Zone"  
C.I.=100 Feet