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

APPLICATION OF YATES PETROLEUM CORPORATION FOR APPROVAL OF A UNIT AGREEMENT, LEA COUNTY, NEW MEXICO.

CASE NO. 13535

AFFIDAVIT OF JOHN AMIET

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

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 13535 Exhibit No. 1
Submitted by:
Yates Petroleum Corporation
Hearing Date: August 11, 2005

I, John Amiet, being first duly sworn on oath, states as follows:

1. My name is John Amiet. I reside in Artesia, New Mexico. I am the petroleum geologist employed by Yates Petroleum Corporation ("Yates") who is responsible for the formation of the proposed Ike State Exploratory Unit ("the Unit") comprised of 3016.04 acres, more or less, of State of New Mexico lands situated in Lea County, New Mexico. The horizontal limits of said Unit Area are described as follows:

Township 12 South, Range 34 East, N.M.P.M.

Section 25: NE4, S2 Section 36: All

Township 12 South, Range 35 East, N.M.P.M.

Section 29: S2

Section 30: All

Section 31: Lots 1, 2, 3, 4, E2W2

Section 32: All

- 2. Yates, the designated Unit Operator in the Ike State Exploratory Unit Agreement, proposes the formation of the Unit to test all formations from the surface to the base of the Mississippian formation.
- 3. The initial unit well will be drilled at a standard location 1650 feet from the North line and 900 feet from the West line of Section 30, Township 12 South, Range 35 East, NMPM, Lea County, New Mexico to an approximate depth of 12,800 feet. The estimated costs for this well are \$2,509,700 million. (The AFE is attached as

Yates Exhibit 2).

- 4. <u>Attachment A</u> to the Affidavit is an original copy of the Unit Agreement for the proposed Ike State Exploratory Unit. This agreement is on the New Mexico State Land Office State/Fee Unit Agreement form.
- 5. Attachment B to the Affidavit is the plat to the Unit Agreement that shows the boundaries of the Ike State Exploratory Unit and the location of the initial unit test well.
- 6. Attachment C to this Affidavit is a copy of Schedule B to the Unit Agreement for the Ike State Exploratory Unit that identifies the working interest ownership in the unit area. 87.5% percent of the working interest in the Unit Area is owned by Yates and its affiliated companies and 100% is committed to the Unit.
- 7. The schedule under Attachment C to the Affidavit also identifies the royalty interest in the Unit Area. 100% percent of the royalty interest is owned by the State of New Mexico. Attachment D to this Affidavit is a letter from the New Mexico Commissioner of Public Lands giving preliminary approval of the State Land Office to the proposed Ike State Exploratory Unit. There are no overriding royalty interests in the Unit Area.
 - 8. All of Yates' interest in the Unit Area have been committed to the Unit.
- 9. Attachment E to this affidavit is a Top of Austin Structure Map. Yates is attempting to locate channel sands by utilizing seismic, log correlation, and regional mapping. Although these gas sands can be very productive, the channels are very narrow and limited in aerial extent. Basal Morrow sand channels have proven to be good reservoirs several miles to the north. Yates is attempting to extend this Morrow trend onto the proposed Unit. These interpreted channels are also shown on the map in dark blue. Structure is very important in this area since a major north-south fault cuts across the center of the proposed unit. The faults are shown in heavy black lines on the map. There are pre-existing faults, but much of the structure seems to have occurred after deposition of the Morrow sands.
- 10. Attachment F is Cross Section A-A' and shows two thin basal Morrow sands (shown in yellow) on the Yates Kookabura well and EOG Empanada well logs. The structural influence is very evident on the cross-section. The Empanada well should be an economic well. It has a cumulative production of 5 MBO and 221 MMCF from the Austin (upper Mississippian) in five months. This well also has several uphole sands (shown in yellow) which have potential. The Empanada well is not perforated in the Morrow but Yates believes this basal sand is communicating with the Austin perfs and therefore is the only economic Atoka-Morrow well on the map. The Kookabura well has a thin basal Morrow channel, but the production has been disappointing. The Atoka and Morrow combined have a cumulative production of 2 MBO and 69 MMCF. The cross-

section also shows the Yates Koala well which has encountered several sands but were either tight or wet. This well has produced 1 MBO and 146 MMCF from the Austin. The MWJ Elkins well has produced 11 MBO and 218 MMCF from the Atoka.

- 11. There are six shallow Upper Penn wells located on a structural high in the northwest corner of the Structure Map Several of these wells have had excellent oil and gas production of over 300 MBO and 400 MMCF. The Phillips well (shown on the cross-section) is the only one of the Upper Penn wells which penetrated the Atoka-Morrow. This Upper Penn trend occurs on a structural high and does not appear to cross into the proposed Unit.
- 12. The 320 acres left out of the unit outline on the south side are leased by EOG Resources Inc. EOG is currently drilling a second well on this acreage (E/2 of Section 31), immediately north of the first Empanada well. Therefore, EOG declined to participate in the Unit.
- 13. The unit covers an area that can be reasonably developed under a unit plan.
- 14. The primary target is the Atoka-Morrow formation with Austin (upper Mississippian) and upper Pennsylvanian production possible.
- 14. If the initial unit well is successful, additional wells will be drilled in the Unit Area. Accordingly, approval of the unit agreement will result in the efficient recovery of hydrocarbons.
- 15. Approval of the Ike State Exploratory Unit and the development of the Unit Area pursuant to a unit plan is in the best interest of conservation, the prevention of waste and the protection of correlative rights.

FURTHER AFFIANT SAYETH NOT.

SUBSCRIBED AND SWORN before me on this 9th day of August, 2005.

Juan Roma Notary Public