

STATE OF NEW MEXICO  
MINERALS AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION  
P. O. BOX 2000  
SANTA FE, NEW MEXICO 87501

Form L-109  
Revised 10-1-

APPLICATION FOR DISCOVERY ALLOWABLE AND CREATION OF A NEW POOL

NOTE: This form is to be filled and attachments made in accordance with the provisions of Rule 309.  
If discovery is claimed for more than one zone, separate forms must be filed for each.

Operator Name Classification Medano VA State Well Location Unit Letter K 1947 Feet from The South Line and 1986 Feet		Address 105 South 4th Street, Artesia, NM 88210 Well No. 1 County Eddy	
From the West Line of Section 16, Township 23-S, Range 31-E, N.M.P.M. (Specify West Lines if less than in order of preference)			
1. Medano Delaware 2. Los Medanos (Delaware) 3. Sand Dunes North (Delaware)			
Name of Producing Formation Delaware Sand	Perforations 4218-26', 4229-37', 7825-28', 7838-44', 7846-56'	(Date of Filling Form C-104) 11-14-90 (4218-37')	
Is "County Pump" Discovery Previously Filed For This Well in this Pool? No		If Yes, Give Date of Filing Date Well was Spuduled 4/15/71	Date Compl. Ready to Prod. 12/20/90
Total Depth 15000'	Plugged Back Depth 8000'	Depth Casing Shoe 12444'	Tubing Depth 7800'
Elevation (Gr., DE, RKB, RT, etc.) 3381' KB; 3358' GR			
Oil Well Potential (Test to be taken only after all load oil has been recovered) 146 Bbls. Oil Per Day Based On 146 Bbls In 24 Hours; 110 Bbls Water Per Day Based On 110 Bbls			
In 24 Hours; Gas Production During Test 2.5 miles east-southeast	45.5 MCF	Gas-Oil Ratio 312	Method Of Production Pump Chk. Size

NEAREST PRODUCTION TO THIS DISCOVERY (Includes past and present oil or gas producing areas and zones whether this discovery is based on horizontal or vertical separation):					
Pool Name West Sand Dunes Morrow	Name of Producing Formation MORROW	Top of Pay 14011'	Bottom of Pay 14092'	Currently Producing SIWOPLC	
Horizontal Distance and Direction from Subject Discovery Well to the Nearest Well in this Pool 1894' Northwest		Vertical Distance from Subject Discovery Zone to Producing Interval in Pool 6155'			

NEAREST COMPARABLE PRODUCTION (Includes past and present oil or gas production from this pay or formation only):					
Pool Name Sand Dunes Cherry Canyon	Top of Pay 5996'	Bottom of Pay 6125'	Currently Producing Yes		
Horizontal Distance and Direction from Subject Discovery Well to the Nearest Well in this Comparable Pool 2.5 miles east-southeast					

Is "County Pump" Discovery Allowable Requested for Subject Discovery Well? No	If Yes, Give Name, Location, and Depth of Next Deepest Oil Production in this County				
--	--	--	--	--	--

Is the Subject Well Multiple Completion? No	Is Discovery Allowable Requested for other Zone(s)?	If Yes, Name all Such Formations			
--	---	----------------------------------	--	--	--

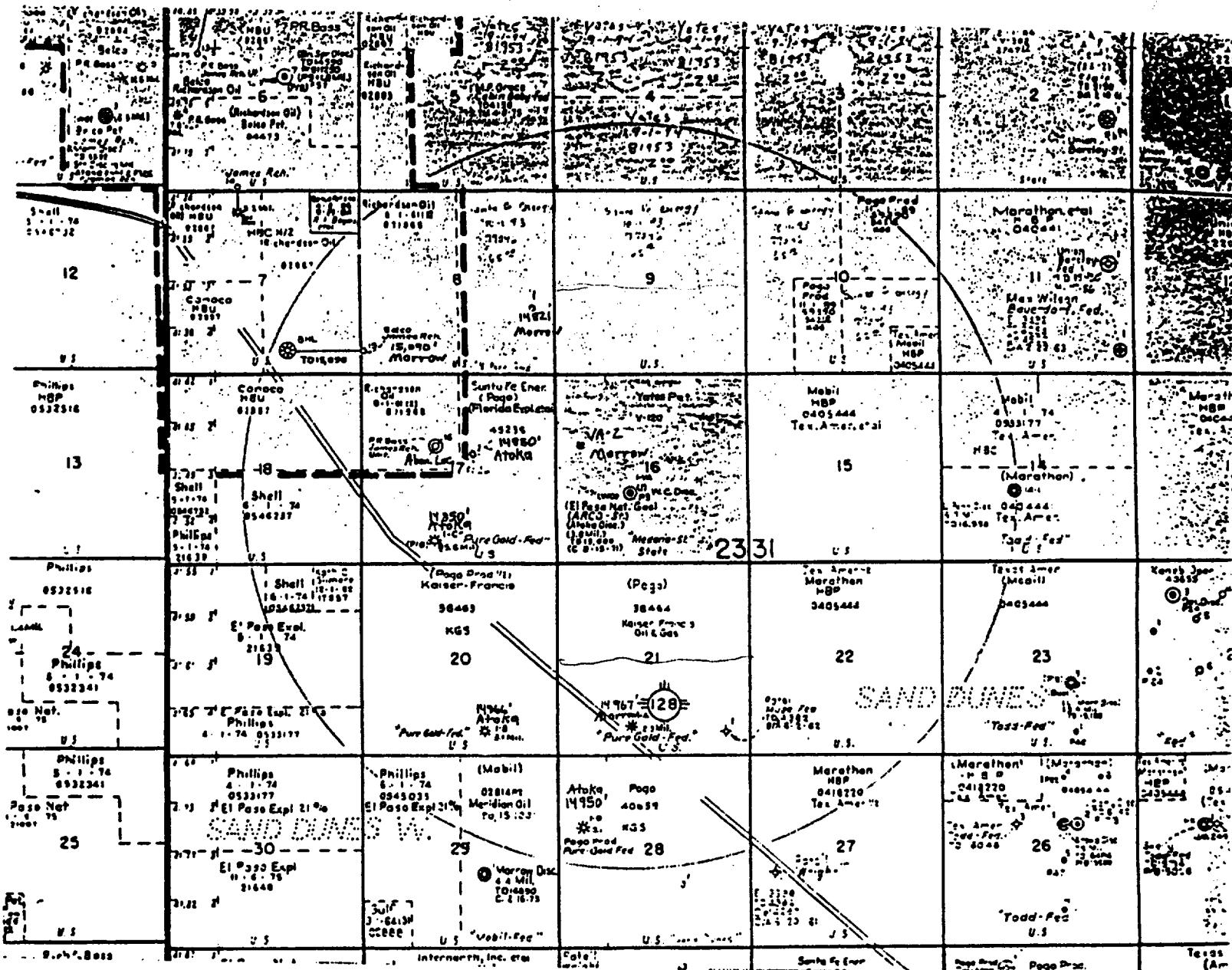
LIST ALL OPERATORS OWNING LEASES WITHIN ONE MILE OF THIS WELL (Attach additional sheet if necessary)					
NAME	ADDRESS				
Santa Fe Energy	550 W. Texas, Ste. 1330, Midland, TX 79701				
Kaiser Francis Oil & Gas	PO Box 84234, Dallas, TX 75284				
Mobil E&P	PO Box 84080, Dallas, TX 75284				
Marathon Oil Company	PO Box 552, Midland, TX 79702				

Attach evidence that all of the above operators have been furnished a copy of this application. Any oil field operator who intends to object to the designation of the subject well as a discovery well, eligible to receive a discovery allowable, must notify the appropriate District Office and the Santa Fe Office Division of such intent in writing within ten days after receiving a copy of this application.

Because of the extensive depth difference between the top and bottom Delaware Sand Intervals (3638'), Yates Petroleum requests the basic depth bracket allowable for the captioned well be based on the average completion depth ( $4218' + 7856' / 2 = 6037'$ ) of 6037' instead of the shallowest perforation depth of 4218'. We have no incentive to develop the shallowest interval based on existing depth bracket allowable rules.

I hereby certify that all rules and regulations of the New Mexico Oil Conservation Division have been followed in the preparation of this application. I further declare that a true and accurate copy of all supply has been furnished for the subject well. If authorized, will be produced from the subject zone in this well attached hereto to this and complete to the best of my knowledge and belief.

CERTIFICATION  
YATES PETROLEUM CORP.  
BEFORE EXAMINER STOGNER  
N.M. O.C.D. CASE NO. 1032  
DATE: 06/13/91  
EXHIBIT NO. 4



ATTACHMENT 1  
Medano VA State #1  
1947' FSL, 1986' FWL  
Unit K, Sec. 16-23S-31E  
Eddy County, New Mexico

Burj  
M.L.B.

ATTACHMENT 2  
Medano VA State #1  
K-16-20S-31E

1. Complete electrical log was filed in 1971 when the well was originally drilled. The tops and bottoms of the producing intervals are shown on the application form C-109. There are no nearby Delaware Sand wells.
2. No subsurface structural map or geologic cross-section is attached for the following reasons:
  - a) The nearest Delaware Sand production is 2.5 miles to the southeast in the Sand Dunes Cherry Canyon pool. The Cherry Canyon member is not productive in the Medano VA State #1.
  - b) The Medano VA State #1 is productive from the Bell Canyon member (4218-37') and the Brushy Canyon member (7825-56') of the Delaware Sand. No other Bell Canyon member or Brushy Canyon member production exists in T23S, R31E.
3. Bottomhole pressure data, reservoir liquid characteristics, core analyses and other reservoir data are not available.