OCD - Hobbs

SUBSURFACE WATER DISPOSAL, INC.
P.O. BOX 1002
HOBBS, NEW MEXICO 88241-1002

February 23, 1994

Oil Conservation Division
New Mexico Energy, Minerals and
Natural Resources Dept.
P.O. Box 2088
Santa Fe, NM 87501

Re: Application for a Commercial Salt Water Disposal Well, Government "E" #1, 1880 feet from the west line and 610 feet from the south line of Section 25, Township 19 South, Range 34 East, Lea Bone Springs Pool, Lea County, New Mexico

Gentlemen:

Subsurface Water Disposal, Inc. hereby makes application to convert the subject Bone Springs producing well to a Bone Springs water disposal well. (Details of the proposed conversion are outlined on an attached sheet.)

The Government "E" #1 was completed in 1971 as a Bone Springs production well, perforations 9716' to 9720', and is presently operating at its economic limit. Cumulative production totals 182 MBO, 517 MMcf, and 121 MBW.

The closest active Lea Bone Springs producing well is over one mile from this proposed disposal well. The only penetrating wellbore within the one-half mile area of review is a plugged Lea Bone Springs producer located 770 feet from the north and 560 feet from the west lines of Sec. 36, Twp. 19 S., Rge. 34 E. (See attached plat.) The plugging detail for this well is provided on an attached diagramatic sketch.

Overlying oil and gas pools in the area are: the Pearl Seven Rivers (oil and gas) at a depth of 3900 to 4000 feet, the Pearl Queen (oil) at a depth of 4600 to 5200 feet, the Pearl San Andres (oil) at a depth of 5200 to 5300 feet, and the Lea San Andres (oil) at a depth of 6000 to 6100 feet. A listing of all wells within one half mile and their completion interval is provided in an attached tabulation. There are no underlying oil and gas pools in this area.

The applicant requests approval to dispose of produced water in the Bone Springs interval from 9716 feet to 10,240 feet. The disposal system will be a closed system and we request a maximum surface injection pressure of 2000 psi. We anticipate initial disposal by gravity. The maximum disposal volume is estimated at 3000 barrels per day with a monthly average rate of approximately 2000 barrels per day. The produced water that we propose to dispose of will come from various sources in the area, such as: the Yates-Seven Rivers, Queen, Grayburg-San Andres, Delaware, and Bone Springs. An informal survey of oil operators indicated a need for a salt water disposal well in this area. The water produced from the Bone Springs formation has a total solids of 120,000 ppm and a chloride content of 72,000 ppm as shown on the attached