

Shahara Oil, LLC

207 W. McKay ♦ Carlsbad, NM 88220 ♦ 505-885-5433 ♦ Fax 505-885-4989

December 14, 1998

Mr. David R. Catanach
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: Order No. R-11027

Dear Mr. Catanach,

The captioned order dated August 3, 1998, authorized Shahara Oil, LLC, to institute a waterflood project on its Beeson "F" Federal Lease covering some 440 acres, more or less in Eddy County, New Mexico, by the injection of water and micro-organisms into the Queen, Grayburg and San Andres formations in the Loco Hills Queen-Grayburg-San Andres Pool. Shahara Oil was directed, however, that prior to commencing such injection operations, the five wells hereafter described should be reentered and replugged in a manner which would insure that those wellbores would not provide a conduit for the injected fluid to escape to other formations or the surface. Subsequent to that order, the writer reviewed those wellbores with you.

This letter is written to further supplement Shahara Oil's Amended application filed in Case No. 11973, memorialize our previous discussions, and report further to you on Shahara Oil's efforts to resolve the problems relating to the plugging of those wells. Those wells are identified and described as follows:

Aston & Fair State No. 1-B Well (Unit K, Sec. 32): Upon further review, this well appears to be outside the ½ mile "area of review."

Yates "A" No. 9 Well (Unit D, Sec. 6): To alleviate any problem with this wellbore, Shahara Oil agrees to limit water injection into the five injection wells in the SW/4 Sec. 31 to no more than 350 barrels of water per day per well for the first six months of the project. After that six month period, Shahara Oil would limit the injection amounts into those wells to no more than the total withdrawals from the four producing wells in that quarter section.

Arnold No. 9 Well (Unit I, Sec. 29): Prior to commencing the injection of water into Well No. F-9 (Unit N, Sec. 29), Shahara Oil would drill a new producing well at a lawful location northeast of the F-9 Well.

Brigham No. 2 Well (Unit I, Sec. 31): Wells numbered F-5 (Unit G, Sec. 31) and F-6 (Unit H, Sec. 31) will become producing wells and not be converted to injection wells as originally proposed. Well No. F-14 (Unit G, Sec. 31) will be reentered and completed as an injection well.

Woolley No. 12-D Well (Unit D, Sec. 33): This well presents a problem because the available records relating to it are sparse. The adjacent Anadarko Federal "T" No. 1 Well (formerly the Woolley No. 1-J Well) in the SE/4 SE/4 Sec. 29 was drilled, deepened, produced, and properly plugged. The reports indicate that 7,887 barrels of oil were produced during its lifetime with no water. An examination of the available logs show poor rock quality throughout the Grayburg and San Andres interval. Initial production in 1942 was ½ BOPD and after deepening and fracing in 1958, production increased to only 6 BOPD.

The Woolley No. 12-D Well was drilled and abandoned with no shows of hydrocarbons. It is approximately 2,000 feet away from Shahara Oil's proposed injection Well No. F-8.

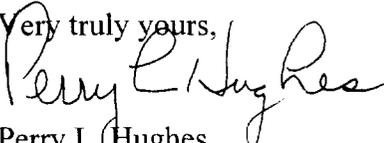
It thus appears that limited or no permeability exists southeast of Shahara Oil's F-8 Well in the area encompassing both the Woolley No. 1-J and Woolley No. 12-D Wells. While the records do not supply definitive information regarding the plugging of the Woolley No. 12-D Well, the writer believes that the plugging is adequate and injection into Shahara Oil's No. F-8 Well will not cause any of the problems of concern.

Production by Shahara Oil will be to the north and west of that Woolley No. 12-D Well and the injected water should move to the northwesterly direction and away from 12-D Well which is southeast of that part of Shahara Oil's project.

In summary, considering (1) the rock quality in the area of the Woolley No. 12-D Well, (2) the distance from Shahara Oil's No. F-8 Well (an injection well) to the Woolley No. 12-D Well, (3) the possibility that the Woolley No. 12-D Well is adequately plugged, and (4) the fact that there was no production from the Woolley No. 12-D Well and only minimal production from the Woolley No. 1-J Well, no further remedial plugging would appear to be warranted. Also, please keep in mind that the Woolley No. 12-D Well is located on land not owned by Shahara Oil.

With this information, Shahara Oil respectfully submits that it has demonstrated that the aforementioned four wells within the "area of review" will not provide a conduit whereby injected fluid may migrate to other formations as set forth in the captioned order.

Should further information be desired, or if a supplemental discussion/hearing should be scheduled, please advise me. Your courtesy to us in this matter is appreciated.

Very truly yours,

Perry L. Hughes
President