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HAZARDOUS WASTE
PROGRAM

November 28, 1994

Ms. Barbara Hoditschek
New Mexico Environment Department
Hazardous & Radioactive Materials Bureau
525 Camino de Los Marquez
P.O. Box 26110
Santa Fe, NM 87502



RE:

Continued Use of Recovery Well MW-1

Transwestern Pipeline Company Roswell Compressor Station

Dear Ms. Hoditschek,

During our meeting of November 1, 1994, Terri Davis raised a concern with the continued use of recovery well MW-1. The concern is that liquids perched above the uppermost clay layer could migrate down the MW-1 wellbore to the uppermost aquifer. The purpose of this letter is to address this issue.

The MW-1 recovery well was drilled and completed in July 1992. The initial objective of the well was to provide a ground water extraction point for dewatering shallow ground water in the immediate area. This objective was based on information presented in one of the earlier subsurface investigation reports which concluded that a limited volume of shallow ground water was contained within a subsurface basin located beneath the former surface impoundment area. Based on this interpretation of subsurface stratigraphy, the well was screened across the presumed saturated interval, i.e. from 28 feet to 68 feet below ground surface. The initial interpretation of subsurface stratigraphy was disproven in April 1993 with the drilling of several additional soil borings in the immediate vicinity of the former surface impoundments. A more accurate interpretation indicates that the MW-1 well is screened across both the perched zone above the uppermost clay layer and the uppermost aquifer. At this time TPC had similar concerns about the potential for migration of liquids perched above the uppermost clay layer to the uppermost aquifer. Subsequently, TPC made a decision to install a recovery pump in MW-1 in order to recover separate phase hydrocarbon rather than to abandon the well. This decision was based primarily on two considerations: 1) there was a very limited volume of perched liquids above the uppermost clay layer; and 2) a recovery pump placed in MW-1 should be capable of recovering any liquid which might migrate down from the perched zone in addition to liquid which would migrate into the wellbore from the uppermost aquifer.

TPC proposes to continue operation of recovery well MW-1 based on the following considerations:

- 1) The volume of liquids which remain perched above the uppermost clay layer is minimal. This was first indicated in July 1993 with the drilling of seven soil borings in the immediate vicinity of RW-1, which is screened in the uppermost water-bearing zone, and MW-1, six of which indicated no liquid perched above the uppermost clay layer. This has been confirmed with recent measurements of liquid levels in RW-1 which indicate an accumulation of just 1.5 inches of separate phase hydrocarbon in the wellbore;
- 2) Separate phase hydrocarbon liquids are actively being removed from RW-1;
- 3) The pump currently operating in recovery well MW-1 is capable of removing liquids from the MW-1 wellbore at a much greater rate than liquids can reasonably be expected to recharge into the wellbore from both the perched zone and the uppermost aquifer; and
- 4) Elimination of recovery well MW-1 would reduce the current recovery rate of separate phase liquid by approximately 47%.

If you have any questions regarding this response, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick

Projects Group Manager EOC Environmental Affairs

gcr/BK

cp w/enclosures:

Roger Anderson

NMOCD

Santa Fe, NM