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

CASE NO. 12982 ORDER NO. R-11899

IN THE MATTER OF THE HEARING CALLED BY THE NEW MEXICO OIL CONSERVATION DIVISION ("DIVISION") ON ITS OWN MOTION FOR AN ORDER AUTHORIZING THE DIVISION TO PLUG TWO WELLS LOCATED IN EDDY COUNTY, NEW MEXICO.

### ORDER OF THE DIVISION

### BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on January 9, 2003, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 10th day of February, 2003, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

#### **FINDS THAT:**

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) E. Paul Moran is the last known operator of the Ramuz Well No. 1 (API No. 30-015-00375) located 660 feet from the North line and 1980 feet from the West line (Unit C) of Section 18, Township 23 South, Range 26 East, NMPM, Eddy County, New Mexico. This well was drilled during the period from January-August, 1940 to a total depth of approximately 1,808 feet. The well was subsequently plugged and abandoned by this operator in November 1940.
- (3) Turner and De Vito is the last known operator of the De Vito Well No. 1 located 330 feet from the South line and 1650 feet from the East line (Unit O) of Section 12, Township 23 South, Range 25 East, NMPM, Eddy County, New Mexico. This well was drilled during the period from October-December, 1940 to a total depth of approximately 1,758 feet. The well was presumably plugged and abandoned by this operator at or about the time it was drilled.
- (4) At this time, the New Mexico Oil Conservation Division ("Division") seeks authority to re-enter and re-plug the Ramuz Well No. 1 and the De Vito Well No. 1 in a manner that will ensure that fresh water will be protected.
  - (5) The Division has very limited data concerning these wells; however, the

well data presented by the Division concerning the Ramuz Well No. 1 demonstrate that:

- (a) 8 1/4-inch surface casing was set at a depth of 150 feet and cemented with 25 sacks of cement. The top of cement is located at a depth of approximately 50 feet from the surface;
- (b) after encountering water at a depth of 1,563 feet, 7-inch casing was set at approximately this depth and cemented with an unknown volume of cement; and
- (c) after encountering salt water at total depth, the well was plugged and abandoned as follows:
  - (i) a ten sack cement plug was set at 1,808 feet;
  - (ii) approximately 1,328 feet of 7-inch casing was cut and pulled and the hole was filled with mud from the top of the bottom cement plug to a depth of 225 feet;
  - (iii) a ten sack cement plug was set at a depth of 225 feet; and
  - (iv) 50 feet of 8 1/4-inch casing was cut and pulled and the hole was filled with mud from approximately 187 feet to the surface.
- (6) The well data presented by the Division concerning the De Vito Well No. 1 demonstrate that:
  - (a) 10-inch surface casing was set at a depth of 451 feet and cemented with an unknown volume of cement;
  - (b) 7-inch casing was set at a depth of 1,533 feet and mudded in;
  - (c) the well was drilled to a total depth of 1,758 feet; and

- (d) the well was subsequently plugged and abandoned; however no plugging detail for this well is on record with the Division.
- (7) E. Paul Moran and Turner and De Vito do not currently operate any wells in New Mexico and, according to Division testimony, it is presumed that these individuals are deceased.
  - (8) There is currently no plugging bond in effect for these operators.
  - (9) The Division presented hydrologic data that demonstrate that:
    - (a) the Ramuz Well No. 1 and the De Vito Well No. 1 are located within the City of Carlsbad's Sheep Draw Well Field Wellhead Protection Area, and are also located approximately 2500 feet from the City of Carlsbad's fresh water well field;
    - (b) the City of Carlsbad obtains its fresh water from the Capitan Reef limestone which is present in this area at a depth of approximately 350-400 feet;
    - (c) there is also fresh water present in this area in a shallow alluvial interval that occurs at a depth of approximately 20-200 feet;
    - (d) the Ramuz Well No. 1 and the De Vito Well No. 1 were drilled into the top of the Delaware formation. Native Delaware formation water in this area contains 59,000-190,000 parts per million of chlorides, and 220,000-290,000 parts per million of total dissolved solids; and
    - (e) inadequately plugged wells in this area may provide an avenue by which Delaware formation water, or other native brine water, may escape into the Capitan Reef or shallow alluvial fresh water aquifers.
- (10) The City of Carlsbad has expressed concern to the Division about this situation and the Division is now working in conjunction with the City of Carlsbad to resolve the problem.

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- (11) The evidence presented demonstrates that in their current condition, the Ramuz Well No. 1 and the De Vito Well No. 1 may provide an avenue by which fluid from the Delaware formation or other brine-bearing formation(s) can migrate into the Capitan Reef or shallow alluvial fresh water aquifers.
- (12) The funds necessary to re-enter and re-plug the Ramuz Well No. 1 and the De Vito Well No. 1 are currently available to the Division through the oil and gas reclamation fund.
- (13) In order to protect fresh water resources, the Division should be authorized to re-enter and re-plug the Ramuz Well No. 1 and the De Vito Well No. 1 in a manner that will ensure that these wellbores will not provide an avenue whereby brine water or other contaminants may migrate into fresh water aquifers.

## IT IS THEREFORE ORDERED THAT:

- (1) The New Mexico Oil Conservation Division is hereby authorized to re-enter and re-plug the Ramuz Well No. 1 (API No. 30-015-00375) located 660 feet from the North line and 1980 feet from the West line (Unit C) of Section 18, Township 23 South, Range 26 East, NMPM, and the De Vito Well No. 1 located 330 feet from the South line and 1650 feet from the East line (Unit O) of Section 12, Township 23 South, Range 25 East, NMPM, Eddy County, New Mexico, in such a manner that will ensure that these wells will not provide an avenue whereby brine water or other contaminants may migrate into fresh water aquifers.
- (2) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

LOBI WROTENBERY

Director