

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

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

APPLICATION OF MARBOB ENERGY CORPORATION
FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO

Case No. 10465

APPLICATION OF MARBOB ENERGY CORPORATION
FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO

Case No. 10466

Order No. R-9666

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 16, 1992, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 6th day of May, 1992, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) At the time of the hearing both Case Nos. 10465 and 10466 were consolidated for the purpose of testimony, and inasmuch as the subject for both cases involves the same area and both are dependent on the other, one order should therefore be issued in this matter.

(3) In Case No. 10465 the applicant, Marbob Energy Corporation, seeks authority to dispose of produced salt water into the Cedar Lake-Abo Pool through the perforated interval from approximately 6890 feet to 7480 feet in its Turner "B" Well No. 65 located 330 feet from the South line and 1980 feet from the West line (Unit N) of Section 20, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

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(4) Similarly in Case No. 10466, the applicant, Marbob Energy Corporation, seeks authority to dispose of produced salt water into the Cedar Lake-Abo Pool through the perforated interval from approximately 6890 feet to 7230 feet in its Turner "B" Well No. 69 located 380 feet from the North line and 2310 feet from the East line (Unit B) of Section 29, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(5) Both wells were drilled by Sinclair Oil and Gas Company in 1960 and completed and produced from the Cedar Lake-Abo Pool until 1971 when both wells were deemed uneconomical due to water encroachment and have since been carried as temporary abandonments.

(6) The Cedar Lake-Abo Pool is a small barrier type reef trending east-west. In 1963 a total of fourteen wells were producing from the pool, the driving mechanism for the pool was solution gas; however, due to water influx, the pool is virtually depleted at this time.

(7) Currently only one well is producing from the Cedar Lake-Abo Pool, that being the applicant's Fren Oil Company Well No. 19 located in Unit I of Section 19, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(8) There is presently an active salt water disposal well in Unit C of said Section 29; Marbob's Turner "B" Well No. 73, which is injecting Grayburg and San Andres produced waters into the Abo formation under authority of the Division by Order No. R-3378, dated February 12, 1968.

(9) The evidence presented indicates that the portion of the Cedar Lake-Abo Pool in Sections 20 and 29 can receive injected salt waters for disposal purposes without harm to any remaining hydrocarbon production from said pool.

(10) All operators of disposal wells are obligated to take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface via surrounding injection, production, and/or plugged and abandoned wells.

(11) The following described previously plugged and abandoned wells are located within the one-half mile "area of review" for the two proposed disposal wells:

<i>Well Name and Number</i>	<i>Footage Location</i>	<i>P & A Date</i>
Atlantic Richfield Company Turner "B" Well No. 58	1650' FNL - 660' FWL (Unit E)	October, 1971
Sinclair Oil & Gas Company Turner "B" Well No. 75	330' FNL - 660' FWL (Unit D)	January, 1961
both in Section 29, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.		

(12) Prior to commencement of injection into both the Turner "B" Well Nos. 65 and 69, the operator should demonstrate that the wells described in Finding Paragraph No. (11) above have either been re-plugged or have been previously plugged and abandoned in such a manner as to ensure that they do not provide an avenue of escape for fluid from the proposed injection zone and in accordance with a program that is satisfactory to the supervisor of the Division's Artesia District Office.

(13) Prior to commencing injection operations, the casing in the subject wells should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(14) Injection into said wells should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 6800 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(15) The injection wells or pressurization system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 140 psi.

(16) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Abo formation.

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(17) The operator should give advance notification to the supervisor of the Artesia District Office of the Division of the date and time of the installation of injection equipment, of the mechanical integrity pressure tests, and of the conductance of any remedial cement and/or plugging operations in order that the same may be witnessed.

(18) Approval of the subject applications will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

(19) The injection authority granted herein should terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

IT IS THEREFORE ORDERED THAT:

(1) Marbob Energy Corporation, as applicant in both Division Case Nos. 10465 and 10466, is hereby authorized to utilize its Turner "B" Well No. 65 located 330 feet from the South line and 1980 feet from the West line (Unit N) of Section 20, and Turner "B" Well No. 69, located 380 feet from the North line and 2310 feet from the East line (Unit B) of Section 29, both in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico, to dispose of produced salt water into the Cedar Lake-Abo Pool through the following perforated intervals:

Well No. 65	6890 feet to 7480 feet
Well No. 69	6890 feet to 7230 feet.

(2) The applicant shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production or plugged and abandoned wells.

IT IS FURTHER ORDERED THAT:

(3) Injection into the proposed injection wells shall be accomplished through 2 3/8-inch plastic-lined tubing installed in a packer set at approximately 6800 feet; the casing/tubing annulus in each well shall be filled with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak-detection device .

(4) The injection wells or pressurization system shall be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 140 psi.

PROVIDED HOWEVER THAT; injection into the Abo formation through said Turner "B" Well Nos. 65 and 69 *shall not commence* until the following described wells have either been re-plugged or have been previously plugged and abandoned in such a manner as to ensure that they do not provide an avenue of escape for fluid from the proposed injection zone and in accordance with a program that is satisfactory to the supervisor of the Division's Artesia District Office.

<i>Well Name and Number</i>	<i>Footage Location</i>	<i>P & A Date</i>
Atlantic Richfield Company Turner "B" Well No. 58	1650' FNL - 660' FWL (Unit E)	October, 1971
Sinclair Oil & Gas Company Turner "B" Well No. 75	330' FNL - 660' FWL (Unit D)	January, 1961
both in Section 29, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.		

(5) The Director of the Division may, upon proper application, authorize an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Abo formation.

(6) The operator shall give advance notification to the supervisor of the Artesia district office of the Division of the date and time of the installation of injection equipment, of the mechanical integrity pressure tests, and of the conductance of any remedial cement and plugging operations in order that the same may be witnessed.

(7) The operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing, casing or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(8) The applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702, 703, 704, 705, 706, 708 and 1120 of the Division Rules and Regulations.

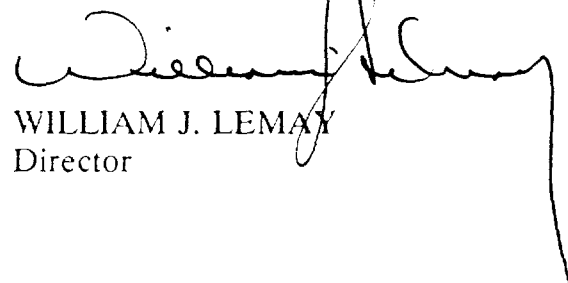
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(9) The injection authority for each of the two subject wells granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the affected well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(10) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

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