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:

CASE NO. 9220 Order No. R-8524

APPLICATION OF BASIN DISPOSAL, INC. FOR SALT WATER DISPOSAL, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on September 23, 1987, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this <u>l6th</u> day of October, 1987, 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) The applicant, Basin Disposal, Inc., seeks authority to dispose of produced salt water into the Point Lookout member of the Mesaverde formation in a perforated interval to be determined after drilling and running logs in its proposed disposal well to be located 2207 feet from the North line and 1870 feet from the West line (Unit F) of Section 3, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.
- (3) Meridian Oil, Inc. (Meridian), the leasehold operator of the acreage upon which the disposal well is to be located, entered an appearance in this case at the time of the hearing.
- (4) At the time of the hearing the applicant agreed to abide by a request from Meridian to confine injection in the proposed disposal well to the Cliff House member of the Mesaverde formation located at a depth of approximately 3800

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feet and to limit the total depth of the proposed well to 3900 feet.

- (5) An appearance was also made at the hearing by Mr. Joseph Goldberg on behalf of a number of residents who reside in close proximity to the proposed disposal well site whose concern centers around the open air pits the applicant is currently utilizing at the site to dispose of produced water.
- (6) By letter to the Division dated September 9, 1987, which has been entered as part of the record in this case, the applicant has stated that the proposed injection well will be utilized as the primary method of water disposal at the disposal site.
- (7) Evidence presented at the hearing indicates that the Beta Development Company Martin 3 Well No. 1, located 1611 feet from the North line and 790 feet from the West line of Section 3, Township 29 North, Range 11 West, NMPM, which is currently a producing gas well in the Dakota formation, may not be cemented adequately to confine the injection fluid to the proposed injection formation.
- (8) Prior to initiating injection operations into the proposed well, the applicant should be required to perform remedial cement operations on the Martin 3 Well No. 1, or to demonstrate to the supervisor of the Division's Aztec district office that said Martin 3 Well No. 1 is adequately constructed so as to confine the injection fluid to the proposed injection formation.
- (9) Injection should be accomplished through 2 7/8-inch lined tubing installed in a packer set within 100 feet of the uppermost perforation; 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.
- (10) Prior to commencing injection operations, the casing in the subject well should be pressure-tested throughout the interval from the surface to the proposed packer-setting depth to assure the integrity of such casing.
- (11) The injection well or system should be equipped with a pressure-limiting switch or other acceptable device which will limit the wellhead pressure on the injection well

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to no more than .2 psi per foot of depth to the uppermost perforation.

- (12) 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 Mesaverde formation.
- (13) The operator should give advance notification to the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.
- (14) The operator should take all steps necessary to ensure the injected water enters only the proposed injection interval and is not permitted to escape to other formations.
- (15) Approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste due to premature abandonment of existing producing wells.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Basin Disposal, Inc., is hereby authorized to utilize a well to be drilled at a location 2207 feet from the North line and 1870 feet from the West line (Unit F) of Section 3, Township 29 North, Range ll West, NMPM, San Juan County, New Mexico, to dispose of produced salt water into the Cliff House member of the Mesaverde formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer to be set within 100 feet of the uppermost perforation.

PROVIDED HOWEVER THAT, injection shall be limited to the Cliff House member of the Mesaverde formation; the tubing shall be lined; the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak-detection device in order to determine leakage in the casing, tubing, or packer.

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in the subject well shall be pressuretested to assure the integrity of such casing in a manner

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that is satisfactory to the supervisor of the Division's district office at Aztec.

PROVIDED FURTHER THAT, prior to commencing injection operations into the well, the applicant shall cement the production string in the Martin 3 Well No. 1, described in Finding No. (8) above, across, above, and below the injection zone or shall demonstrate to the supervisor of the Division's Aztec district office that said Martin 3 Well No. 1 is adequately constructed so as to confine the injection fluid to the proposed injection formation.

- (2) The applicant shall be required to furnish the Santa Fe office of the Division a copy of the log run on the well and detailed information on the location and extent of perforations in the well.
- (3) The injection well or system shall be equipped with a pressure-limiting switch or other acceptable device that will limit the wellhead pressure on the injection well to no more than .2 psi per foot of depth to the uppermost perforation.
- (4) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injection fluid from the Cliff House member of the Mesaverde formation.
- (5) The operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.
- (6) The operator shall immediately notify the supervisor of the Division's Aztec 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.
- (7) The applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702, 703, 704, 705, 708, and 1120 of the Division Rules and Regulations.

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- (8) The applicant shall, insofar as is practical, utilize the disposal well as the primary means of disposing produced salt water at the site.
- (9) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

 ${\tt DONE}$ at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY Director

SEAL