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

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

CASE NO. 8780 Order No. R-8118

APPLICATION OF MURPHY OPERATING CORPORATION FOR A WATERFLOOD PROJECT, ROOSEVELT COUNTY, NEW MEXICO

# ORDER OF THE DIVISION

# BY THE DIVISION:

This cause came on for hearing at 8 a.m. on December 4, 1985, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 6th day of January, 1986, 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, Murphy Operating Corporation, seeks authority to institute a waterflood project in its Bluitt San Andres Unit, located entirely within the Bluitt-San Andres Associated Pool, by the injection of water into the San Andres formation through the perforated intervals from approximately 4640 feet to 4676 feet in four existing wells as shown on Exhibit "A" attached hereto and made a part hereof, all located in Section 13, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.
- (3) The subject case was consolidated with Division Case No. 8779 for purposes of testimony.
- (4) The project area should consist of that area within the boundary of the Bluitt San Andres Unit Area, as described in Division Order R-8117 issued in said Case No. 8779.

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- (5) The wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (6) The proposed waterflood project should result in the recovery of otherwise recoverable oil, thereby preventing waste.
- (7) The operator should 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.
- (8) Injection should be accomplished through plastic-lined tubing installed in a packer set approximately 100 feet above the uppermost perforation, or in the case of an open hole completion, approximately 100 feet above the casing shoe. The casing-tubing annulus in each injection well should be filled with an inert fluid and a surface pressure gauge or approved leak detection device should be attached to the annulus.
- (9) The injection wells or system should be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the uppermost perforation. The Division Director should have authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.
- (10) Prior to commencing injection operations, the casing in each of the proposed injection 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.
- (11) All wells within the unit area should be equipped with risers or in some other acceptable manner to facilitate the periodic testing of the bradenhead for pressure or fluid production.
- (12) The applicant further proposed the establishment of an administrative procedure for the approval without notice and hearing of the drilling of wells at orthodox and unorthodox locations, and also for the expansion of said waterflood project within the unit boundaries.

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- (13) The project area allowable should be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.
- (14) The subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

### IT IS THEREFORE ORDERED THAT:

- (1) The applicant, Murphy Operating Corporation, is hereby authorized to institute and operate a waterflood project in the Bluitt San Andres Unit Area within the Bluitt-San Andres Associated Pool, Roosevelt County, New Mexico, by the injection of water into the San Andres formation through four injection wells located in Section 13, Township 8 South, Range 37 East, Roosevelt County, New Mexico, and described in Exhibit "A" attached to this order and by reference made a part hereof.
- (2) Injection shall be accomplished through plastic-lined tubing installed in a packer set approximately 100 feet above the uppermost perforation, or in the case of an open hole completion, approximately 100 feet above the casing shoe. The casing-tubing annulus in each injection well shall be filled with an inert fluid and a surface gauge or approved leak detection device shall be attached to the annulus.
- (3) The injection wells or system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the uppermost perforation. The Division Director may administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.
- (4) All wells within the unit area shall be equipped with risers or some other acceptable equipment so as to facilitate the periodic testing of the bradenhead for pressure or fluid production.
- (5) Prior to commencing injection operations, the casing in each of the proposed injection wells shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Hobbs district office.
- (6) The Director of the Oil Conservation Division shall have authority to approve, without notice and hearing, the

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drilling of wells at unorthodox locations anywhere within the boundary of the Bluitt San Andres Unit Area, provided however, no unorthodox location shall be closer than ten feet to any quarter-quarter section line, and provided further, that no such unorthodox location shall be closer than 330 feet to the outer boundary of the Unit area, unless such well is covered by a lease-line agreement with the operator of the lands offsetting such well, and a copy of the lease-line agreement accompanies the application for such unorthodox location, or unless such offset operator has waived objection to the proposed unorthodox location in writing, and his waiver accompanies the application. Applications for such additional producing or injection wells shall be made in accordance with the appropriate General Rules of the Division.

- (7) The operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.
- (8) The subject waterflood project is hereby designated the Bluitt San Andres Unit Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.
- (9) The project area for the Bluitt San Andres Unit Waterflood Project shall comprise the entire area within the Bluitt San Andres Unit as described in Division Order R-8117.
- (10) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.
- (11) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

R. L. STAMETS,

Director

S E A L

# EXHIBIT "A" CASE NO. 8780 ORDER NO. R-8118

# INJECTION WELLS

WELL NAME & NUMBER	LOCATION
Bluitt Federal Well No. 1	Unit I, Section 13
Bluitt Federal Well No. 3	Unit O, Section 13
Baetz Federal Well No. 1	Unit G, Section 13
Baetz Federal Well No. 2	Unit K, Section 13

All wells located in Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.