STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

BRUCE KING GOVERNOR

ADMINISTRATIVE ORDER NO. WFX-613

APPLICATION OF PYRAMID ENERGY, INC. TO EXPAND ITS WATERFLOOD PROJECT IN THE PEARL QUEEN POOL IN LEA COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-2729, Pyramid Energy, Inc. has made application to the Division on August 16, 1991, for permission to expand its West Pearl Queen Unit Waterflood Project in the Pearl Queen Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been filed in due form.
- (2) Satisfactory information has been provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection wells are eligible for conversion to water injection under the terms of Rule 701.
- (5) The proposed expansion of the above referenced Waterflood Project will not cause waste nor impair correlative rights.
 - (6) The application should be approved.

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IT IS THEREFORE ORDERED THAT:

The applicant, Pyramid Energy, Inc., be and the same is hereby authorized to inject water into the Queen formation at approximately 4718 feet to approximately 5036 feet through 2 3/8 inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the wells shown on Exhibit "A" attached hereto for purposes of secondary recovery to wit.

The operator 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.

Prior to commencing injection operations into the wells, the casing in each well shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus in each well shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than .2 psi/ft. of depth to the uppermost perforation, as shown on Exhibit "A".

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Queen formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-2729 and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

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PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

Approved at Santa Fe, New Mexico, on this 18th day of September, 1991.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMA

Director

SEAL

cc: Oil Conservation Division - Hobbs

EXHIBIT "A" DIVISION ORDER NO. WFX-613 WEST PEARL QUEEN UNIT WATERFLOOD PROJECT APPROVED INJECTION WELLS

ing Injection ze Pressure	/8" 947 PSIG	/8" 954 PSIG	/8" 950 PSIG	/8" 944 PSIG	/8" 944 PSIG	/8" 946 PSIG	/8" 946 PSIG	/8" 953 PSIG	/8" 955 PSIG	/8" 954 PSIG	/8" 952 PSIG	/8" 947 PSIG	/8" 951 PSIG	/8" 950 PSIG	2 3/8" 958 PSIG		
Packer Depth Tubing Size	4700' 2 3/8"	4700' 2 3/8"	4700' 2 3/8"	4675' 2 3/8"	4675' 2 3/8"	4700' 2 3/8"	4700' 2 3/8"	4740' 2 3/8"	4750' 2 3/8"	4725' 2 3/8"	4725' 2 3/8"	4700' 2 3/8"	4700' 2 3/8"	4700' 2 3/8"	4750° 2 3		
Injection Perforations P.	4734' - 4968'	4770' - 4912'	4752' - 4998'	4718' - 4857'	4720' - 4916'	4730' - 4939'	4728' - 4957'	4764' - 5011'	4774' - 5021'	4772' - 5019'	4758' - 4996	4735' - 4870'	4755' - 5028'	4748' - 5036'	4789° - 5020°		
S.T.R	28-19S-35E	29-19S-35E	29-19S-35E	28-19S-35E	28-19S-35E	28-19S-35E	28-19S-35E	29-19S-35E	32-19S-35E	32-19S-35E	33-19S-35E	33-19S-35E	33-19S-35E	33-19S-35E	32-19S-35E		
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Location	1580' FNL & 660' FWL	1980' FNL & 660' FEL	1980' FSL & 660' FEL	1980' FSL & 1980' FWL	990' FSL & 660' FEL	660' FSL & 1980 FEL	660' FSL & 660' FWL	660' FSL & 1980' FEL	660' FNL & 1980' FEL	660' FNL & 660' FEL	660' FNL & 1980' FWL	660' FNL & 660' FEL	1980' FNL & 1980' FEL	1980' FNL & 660' FWL	1980' FNL & 1980' FEL		
Well Number	WPQU No. 109	WPQU No. 110	WPQU No. 119	WPQU No. 121	WPQU No. 123	WPQU No. 124	WPQU No. 126	WPQU No. 128	WPQU No. 138	WPQU No. 139	WPQU No. 141	WPQU No. 143	WPQU No. 145	WPQU No. 147	WPQU No. 149		