

Entered December 23, 1977

JAR

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 6000
Order No. R-5591

APPLICATION OF ATLANTIC RICHFIELD
COMPANY FOR A WATERFLOOD PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 20, 1977, at Santa Fe, New Mexico, before the Commission.

NOW, on this 27th day of December, 1977, the Commission, a quorum being present, having considered the testimony, the record, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Atlantic Richfield Company, seeks authority to institute a waterflood project on its East Blinebry Unit, Blinebry Oil and Gas Pool, by the injection of water into the Blinebry formation through 38 injection wells in Sections 11, 12, 13, 14, 23, and 24, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.
- (3) That the majority of the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.
- (5) That the evidence presented indicates that the following wells, all in Township 21 South, Range 37 East, NMPM, are either injection wells for said waterflood project, or are in close proximity to injection wells for said project, and may not be adequately cemented so as to cause water injected into the Blinebry formation to be contained in said formation:

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OPERATOR	LEASE NAME	WELL	UNIT	SECTION
		NO.		
Shell Oil Company	Fields	1	O	12
Shell Oil Company	Smith	1	G	14
Atlantic Richfield Co.	Sarkeys	3	I	23
Imperial American Management Company	Bunin	3Y	A	13
Tenneco Oil Company	Elliott Federal	1	T	1
Continental Oil Co.	Hawk "B-3"	7	Q	3
Continental Oil Co.	Hawk "B-3"	1	X	3
Exxon Co.	State "V"	6	J	10
Aztec Oil & Gas Co.	Dauron	3	A	10
Gulf Oil Corporation	Eubank	8	G	22

(6) That the annular space between the casing and hole in the wells described in Finding No. (5) above could serve as an avenue of water migration from the Blinebry zone to other zones or to the surface.

(7) That to prevent such migration of water from the Blinebry zone, cement bond logs should be run on the wells described in Finding No. (5) above, and any such well not adequately cemented across and above the Blinebry zone in such a manner as to ensure the presence of cement should be recemented throughout the Blinebry formation and a minimum of 500 feet above the top thereof.

(8) That the wells within the project should be equipped to facilitate periodic testing of the annular space between strings of casings.

(9) That 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.

(10) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Atlantic Richfield Company, is hereby authorized to institute a waterflood project on its East Blinebry Unit, Blinebry Oil and Gas Pool, by the injection of water into the Blinebry formation through the following-described wells in Sections 11, 12, 13, 14, 23, and 24, all in Township 21 South, Range 37 East, NMPM, Lea County, New Mexico:

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<u>OPERATOR</u> <u>LEASE</u>	<u>WELL</u> <u>NO.</u>	<u>LOCATION</u>
<u>Atlantic Richfield Company</u>		
Roy Barton	4	1750' FNL & 1980' FEL, Sec. 23
S. J. Sarkeys	2	330' FSL & 2310' FEL, Sec. 23
S. J. Sarkeys	3	2310' FSL & 330' FEL, Sec. 23
<u>J. R. Cone</u>		
Eubanks	1	660' FSL & 660' FWL, Sec. 14
Eubanks	3	1980' FSL & 1830' FWL, Sec. 14
<u>Continental Oil Company</u>		
Lockhart B-11	3	1980' FNL & 330' FWL, Sec. 11
Lockhart B-11	4	330' FNL & 1650' FWL, Sec. 11
Lockhart B-11	6	330' FNL & 330' FEL, Sec. 11
Lockhart B-11	8	660' FSL & 1980' FEL, Sec. 11
Lockhart B-11	11	1980' FSL & 330' FEL, Sec. 11
Lockhart B-11	17	1980' FNL & 1980' FEL, Sec. 11
J. H. Nolan	1	660' FSL & 660' FWL, Sec. 11
J. H. Nolan	3	1980' FSL & 1980' FWL, Sec. 11
Lockhart B-12	4	1650' FNL & 660' FWL, Sec. 12
Lockhart B-13-A	1	660' FSL & 660' FWL, Sec. 13
Lockhart B-13-A	2	1980' FNL & 660' FWL, Sec. 13
Lockhart B-14-A	3	660' FNL & 330' FEL, Sec. 14
Lockhart B-14-A	4	1980' FSL & 330' FEL, Sec. 14
<u>Getty Oil Company</u>		
D. A. Williamson	2	1980' FNL & 660' FWL, Sec. 23
D. A. Williamson	4	660' FNL & 1980' FWL, Sec. 23
<u>Gulf Oil Corporation</u>		
Naomi Keenum	2	660' FSL & 1980' FEL, Sec. 14
Nancy Stephens	2	1980' FNL & 660' FWL, Sec. 24
Nancy Stephens	3	660' FNL & 1980' FWL, Sec. 24
<u>Mobil Oil Corporation</u>		
Stephens Estate	2	660' FSL & 660' FWL, Sec. 24
Williamson	1	660' FNL & 660' FEL, Sec. 23
<u>Moranco</u>		
Owen	1	1980' FNL & 660' FWL, Sec. 14

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<u>OPERATOR</u> <u>LEASE</u>	<u>WELL</u> <u>NO.</u>	<u>LOCATION</u>
<u>Shell Oil Company</u>		
Andrews	2	990' FNL & 1980' FWL, Sec. 14
Sarkeys	1	660' FSL & 660' FWL, Sec. 23
Sarkeys	2	1980' FSL & 1980' FWL, Sec. 23
Smith	1	1980' FNL & 1980' FEL, Sec. 14
<u>Continental Oil Company</u>		
Lockhart B-12	6	330' FNL & 1980' FWL, Sec. 12
Lockhart B-12	9	1980' FNL & 2310' FEL, Sec. 12
Lockhart B-13-A	4	1980' FSL & 1980' FWL, Sec. 13
Lockhart B-13-A	6	1980' FNL & 1980' FEL, Sec. 13
<u>Shell Oil Company</u>		
Chesher	1	1980' FSL & 1980' FWL, Sec. 12
Chesher	2	660' FSL & 660' FWL, Sec. 12
Fields	1	660' FSL & 2310' FEL, Sec. 12
<u>Summit Energy, Inc.</u>		
Gulf Bunin	2	660' FNL & 1650' FWL, Sec. 13

(2) That injection into each of said wells should be through internally coated tubing, set in a packer which shall be located as near as practicable to the uppermost perforation; that the casing-tubing annulus of each injection well shall be tested for leaks, be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device, and that the injection wells or system shall be equipped in such a manner as to limit wellhead injection pressure to no more than 1140 psi.

(3) That the Secretary-Director of the Commission may administratively authorize a pressure limitation in excess of 1140 psi upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.

(4) That the wells within the project area shall be equipped with risers or in another acceptable manner such as to facilitate the periodic testing of the bradenhead for pressure or fluid production.

(5) That before the Shell Oil Company Fields Well No. 1 in Unit O of Section 12, Shell Oil Company Smith Well No. 1 in Unit G of Section 14, and Atlantic Richfield Company Sarkeys Well No. 3 in Unit I of Section 23, all in Township 21 South,

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Range 37 East, may be converted to injection, the operator shall cause cement bond logs to be run on each of said wells and shall further cause any such well found to be inadequately cemented across and above the Blinebry zone to be recemented in such a manner as to ensure the presence of cement throughout the Blinebry formation and a minimum of 500 feet above the top thereof.

(6) That within 6 months after initiation of injection within the project, the operators of the following wells, all in Township 21 South, Range 37 East, NMPM, shall cause cement bond logs to be run in the wells and shall further cause any such well found to be inadequately cemented across and above the Blinebry zone to be recemented in such a manner as to ensure the presence of cement throughout the Blinebry formation and a minimum of 500 feet above the top thereof:

OPERATOR	LEASE NAME	WELL NO.	UNIT	SECTION
Imperial American Management Company	Bunin	3Y	A	13
Tenneco Oil Company	Elliott Federal	1	T	1
Continental Oil Co.	Hawk "B-3"	7	Q	3
Continental Oil Co.	Hawk "B-3"	1	X	3
Exxon Co.	State "V"	6	J	10
Aztec Oil & Gas Co.	Dauron	3	A	10
Gulf Oil Corporation	Eubank	8	G	22

(7) That the operators shall notify the Commission's Hobbs district office of the date and time of operations required by Orders Nos. (5) and (6) of this Order so that the Commission may at its option witness such operations.

(8) That the operator of the project, or of any affected nearby property, shall immediately notify the supervisor of the Commission'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 around any producing well, the leakage of water or oil from any plugged and abandoned well within the project area or any other evidence of fluid migration from the injection zone, and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(9) That the subject waterflood project is hereby designated the Atlantic Richfield East Blinebry Unit Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(10) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in

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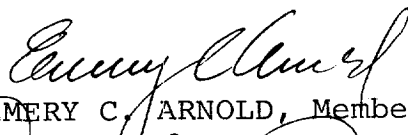
accordance with Rules 704 and 1115 of the Commission Rules and Regulations.

(11) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman


EMERY C. ARNOLD, Member


JOE D. RAMEY, Member & Secretary

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