New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson

Joanna Prukop Cabinet Secretary Reese Fullerton Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



Administrative Order IPI-340 April 29, 2009

Occidental Permian Ltd. 5 Greenway Plaza, Suite 110 Houston, Texas 77210-4294

Attention: Mr. Mark Stephens

RE: Injection Pressure Increase Request

South Hobbs Grayburg San Andres Unit (19552) Township 19 South, Range 38 East, NMPM, Lea, New Mexico Grayburg San Andres Pool (31920)

Reference is made to your request on behalf of Occidental Permian Ltd. (OGRID 157984) received by the Division April 17, 2009, to increase the surface injection pressure limit on the eighty (80) injection wells (named blow).

The original permitted maximum pressure on these wells was governed by Rule 15 in Division Order No. R-4934 issued in Case No. 5372 on December 3, 1974. Rule 15 states that the surface injection pressures at the well head of all injection wells in the Project shall be kept low enough so that the surface injection pressure plus the hydrostatic head of the fluid currently injected does not exceed 200 percent of the original bottomhole pressure of the Hobbs Grayburg San Andres Pool, 1525 psig.

It is our understanding these wells need the additional surface injection pressure to balance injection and withdrawal rates in order to optimize waterflood operations. The basis for granting this pressure increase is the Step Rate Tests run by Occidental on 8 of these wells in 2008.

Occidental Permian Ltd. is hereby authorized to utilize up to <u>1100 psi</u> as the maximum surface injection pressure on the wells shown below, provided the tubing, size, type, setting depths and perforation depths do not change, but is prohibited from injecting at pressures that would induce fracturing in individual wells.:



Well			Well		
SHGSAU	API	LOCATION	SHGSAU	API	LOCATION
No. 11	30-025-07635	S. 6, T-19-S, R-38-E	No. 120	30-025-26115	S. 5, T-19-S, R-38-E
No. 13	30-025-07624	S. 5, T-19-S, R-38-E	No. 121	30-025-26116	S. 4, T-19-S, R-38-E
No. 22	30-025-07587	S. 3, T-19-S, R-38-E	No. 127	30-025-28331	S. 34, T-18-S, R-38-E
No. 26	30-025-07641	S. 6, T-19-S, R-38-E	No. 128	30-025-28332	S. 3, T-19-S, R-38-E
.No. 27	30-025-07631	S. 5, T-19-S, R-38-E	No. 129	30-025-28333	S. 34, T-18-S, R-38-E
No. 29	30-025-07620	S. 5, T-19-S, R-38-E	No. 152	30-025-28355	S. 9, T-19-S, R-38-E
No. 30	30-025-07613	S. 5, T-19-S, R-38-E	No. 170	30-025-26623	S. 4, T-19-S, R-38-E
No. 31	30-025-07597	S. 4, T-19-S, R-38-E	No. 172	30-025-28543	S. 9, T-19-S, R-38-E
No. 32	30-025-07610	S. 4, T-19-S, R-38-E	No. 173	30-025-28733	S. 10, T-19-S, R-38-E
No. 34	30-025-07599	S. 4, T-19-S, R-38-E	No. 174	30-025-26622	S. 3, T-19-S, R-38-E
No. 36	30-025-07588	S. 3, T-19-S, R-38-E	No. 176	30-025-28974	S. 6, T-19-S, R-38-E
No. 39	30-025-07634	S. 5, T-19-S, R-38-E	No. 182	30-025-27628	S. 5, T-19-S, R-38-E
No. 40	30-025-07623	S. 5, T-19-S, R-38-E	No. 187	30-025-07621	S. 5, T-19-S, R-38-E
No. 42	30-025-12514	S. 4, T-19-S, R-38-E	No. 192	30-025-24447	S. 5, T-19-S, R-38-E
No. 43	30-025-07601	S. 4, T-19-S, R-38-E	No. 193	30-025-28984	S. 5, T-19-S, R-38-E
No. 45	30-025-07607	S. 4, T-19-S, R-38-E	No. 206	30-025-29519	S. 6, T-19-S, R-38-E
No. 47	30-025-07593	S. 3, T-19-S, R-38-E	No. 207	30-025-29520	S. 5, T-19-S, R-38-E
No. 50	30-025-07632	S. 5, T-19-S, R-38-E	No. 208	30-025-29521	S. 5, T-19-S, R-38-E
No. 51	30-025-07633	S. 5, T-19-S, R-38-E	No. 209	30-025-29522	S. 8, T-19-S, R-38-E
No. 53	30-025-07612	S. 4, T-19-S, R-38-E	No. 213	30-025-29752	S. 5, T-19-S, R-38-E
No. 54	30-025-07608	S. 4, T-19-S, R-38-E	No. 215	30-025-29753	S. 4, T-19-S, R-38-E
No. 55	30-025-07611	S. 4, T-19-S, R-38-E	No. 216	30-025-29754	S. 4, T-19-S, R-38-E
No. 56	30-025-07609	S. 4, T-19-S, R-38-E	No. 217	30-025-29755	S. 4, T-19-S, R-38-E
No. 58	30-025-07594	S. 3, T-19-S, R-38-E	No. 218	30-025-29756	S. 4, T-19-S, R-38-E
No. 61	30-025-07652	S. 8, T-19-S, R-38-E	No. 229	30-025-31420	S. 4, T-19-S, R-38-E
No. 63	30-025-07662	S. 9, T-19-S, R-38-E	No. 230	30-025-31421	S. 4, T-19-S, R-38-E
No. 64	30-025-07669	S. 9, T-19-S, R-38-E	No. 233	30-025-31422	S. 4, T-19-S, R-38-E
No. 66	30-025-07672	S. 10, T-19-S, R-38-E	No. 235	30-025-31423	S. 4, T-19-S, R-38-E
No.67	30-025-07676	S. 10, T-19-S, R-38-E	No. 238	30-025-31424	S. 4, T-19-S, R-38-E
No. 68	30-025-07679	S. 10, T-19-S, R-38-E	COOP No. 1	30-025-28304	S. 6, T-19-S, R-38-E
No. 71	30-025-07670	S. 9, T-19-S, R-38-E	COOP No. 2	30-025-28305	S. 4, T-19-S, R-38-E
No. 72	30-025-07667	S. 9, T-19-S, R-38-E	COOP No. 3	30-025-28306	S. 4, T-19-S, R-38-E
No. 73	30-025-07671	S. 9, T-19-S, R-38-E	COOP No. 4	30-025-28307	S. 4, T-19-S, R-38-E
No. 76	30-025-07678	S. 10, T-19-S, R-38-E	COOP No. 5	30-025-28308	S. 34, T-18-S, R-38-E
No. 83	30-025-07668	S. 9, T-19-S, R-38-E	COOP No. 6	30-025-28309	S. 34, T-18-S, R-38-E
No. 84	30-025-07659	S. 9, T-19-S, R-38-E	COOP No. 9	30-025-28968	S. 34, T-18-S, R-38-E
No. 87	30-025-12765	S. 10, T-19-S, R-38-E	COOP No. 10	30-025-28969	S. 34, T-18-S, R-38-E
No. 90	30-025-20167	S. 9, T-19-S, R-38-E	COOP No. 11	30-025-28970	S. 34, T-18-S, R-38-E
No. 112	30-025-25127	S. 3, T-19-S, R-38-E	COOP No. 12	30-025-28971	S. 34, T-18-S, R-38-E
No. 119	30-025-07653	S. 8, T-19-S, R-38-E	COOP No. 13	30-025-28972	S. 3, T-19-S, R-38-E

IPI-340 April 29, 2009 Page 3

This approval is subject to your being in compliance with all other Division rules, including but not limited to Division Rule 5.9.

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers, or is causing waste of oil and gas.

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

Sincerely,

Mark E. Fesmire, P.E.

Director

MEF/tw

cc:

Oil Conservation Division - Hobbs

File: R-4943