



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Marathon Oil Company
P. O. Box 3487
Houston, Texas 77253-3487

Attention: **Mark Mick**
Operations Engineer
msmick@marathonoil.com

April 23, 2004

Joanna Prukop

Cabinet Secretary
Acting Director

Oil Conservation Division

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Administrative Order NSL-4649-A (BHL) (SD)

Dear Mr. Mick:

Reference is made to the following: (i) your application filed with the New Mexico Oil Conservation Division ("Division") on March 31, 2004 (*administrative application reference No. pMES0-409157253*); (ii) my e-mail late Thursday afternoon, April 22, 2004 requesting additional information to support your application; (iii) your e-mail response Friday morning, April 23, 2004 with the requested information; and (iv) the Division's records in Santa Fe, including the file on Division Administrative Orders NSL-4649 (BHL): all concerning Marathon Oil Company's ("Marathon") request for an exception to Rule 2 (b) of the "*Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool*", as promulgated by New Mexico Oil Conservation Division ("Division") Order Nos. R-9922, R-9922-A, R-9922-B, R-9922-C, R-9922-D, and R-9922-E and the "*General Rules and Regulations for the Associated Oil and Gas Pools of Northwest New Mexico and Southeast New Mexico*," as promulgated by Division Order No. R-5353, as amended, for Marathon's existing Indian Hills Unit Well No. 31 (API No. 30-015-31534) to be recompleted as an upper Pennsylvanian infill well to an unorthodox subsurface location within an existing standard 320-acre spacing and proration unit for the Indian Basin-Upper Pennsylvanian Associated Pool (33685) comprising the W/2 of Section 21, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.

This unit is currently simultaneously dedicated to Marathon's:

- (i) Indian Hills Unit Well No. 1 (API No. 30-015-10066), located on the surface 416 feet from the South line and 176 feet from the West line (Unit M) of Section 21 and completed within the Indian Basin-Upper Pennsylvanian Associated Pool at an unorthodox bottom-hole location that is 427 feet from the South line and 30 feet from the West line (Unit M) of Section 21, see Division Administrative Order NSL-4649 (BHL), dated October 3, 2001;
- (ii) Indian Hills Unit Well No. 36 (API No. 30-015-32140), located on the surface 429 feet from the South line and 506 feet from the West line (Unit M) of Section 21, and completed within the Indian Basin-Upper Pennsylvanian Associated Pool at a bottom-hole infill location within Unit "K" of Section 21 that is 1708 feet from the South line and 1608 feet from the West line of Section 21; and
- (iii) aforementioned Indian Hills Well No. 31, which well was initially drilled in early 2001 from a surface location 1093 feet from the North line and 663 feet from the East line (Unit A) of Section 20, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, directionally drilled to the east to a total depth of 8,955 feet (MD), or 8,600 (TVD), at a bottom-hole location 1327 feet from the North line and 1510 feet from the West line (Unit F) of Section 21.

It is the Division's understanding that Marathon now intends to abandon the current Upper Pennsylvanian completion, plug back to a depth of 2,000 feet (MD), kick-off in a southeasterly direction, and continue drilling directionally to a targeted-bottomhole location at an approximate depth 8,570 feet (TVD) 2467 feet from the North line and 496 feet from the West line (Unit E) of Section 21. This new directional wellbore is expected to intersect the top of the Upper-Pennsylvanian interval at an approximate depth of 8,013 feet (MD), or 7,780 feet (TVD) 2286 feet from the North line and 340 feet from the West line (Unit E) of Section 21. The proposed well will be unorthodox in that the entire producing interval will be closer than the standard setback distance of 660 from the South line of Section 21. Further, this new bottom-hole location has been chosen by Marathon to optimize reservoir drainage and minimize geological risk.

This application has been duly filed under the provisions of Division Rule 104.F and Rule 2 (c) of the Division's associated pool rules.

By the authority granted me under the provisions of Division Rule 104.F (2) and the applicable provisions of the special rules governing the Indian Basin-Upper Pennsylvanian Associated Pool, Marathon is hereby authorized to recomplete its Indian Hills Unit Well No. 31 as close as is reasonably possible to the proposed targeted unorthodox penetration point for the Upper-Pennsylvanian interval and bottom-hole well location.

Further, the aforementioned well and 320-acre spacing and proration unit will be subject to all existing rules, regulations, policies, and procedures applicable to the Indian Basin-Upper Pennsylvanian Associated Pool.

Marathon is hereby authorized to simultaneously dedicate production attributed to the Indian Basin-Upper Pennsylvanian Associated Pool from the aforementioned Indian Hills Unit Wells No. 1, 31, and 36. Furthermore, Marathon is permitted to continue producing the allowable assigned the subject 320-acre spacing and proration unit from all three wells in any proportion.

Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,



Michael E. Stogner
Engineer/Hearing Officer

MES/ms

cc: New Mexico Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad
File: NSL-4649 (BHL)