



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



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March 12, 1993

KELLAHIN AND KELLAHIN
Attorneys at Law
P. O. Drawer 2265
Santa Fe, New Mexico 87504

RE: CASE NO. 10667
ORDER NO. R-9857

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,

Sally Leichtle
Sally E. Leichtle
Administrative Secretary

cc: BLM - Carlsbad
William Carr
James Bruce

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March 10, 1993

*NOT LICENSED IN NEW MEXICO

Michael E. Stogner
Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87503

Re: Case No. 10,667, The Application of Marathon Oil
Company for Establishment of a Temporary Testing
Allowable, Vacuum-Drinkard Pool, Lea County, New
Mexico

Dear Mr. Stogner:

We are in receipt of Mr. Kellahin's proposed Order in the
above case. On behalf of Exxon Corporation, we assert that the
Order is self-serving and incorrectly states the facts. Simply
put, the temporary testing allowable is totally unnecessary in
order for Marathon to obtain the data it desires, as Marathon's
witnesses admitted. Furthermore, the proposed "findings" in the
Order, with respect to Exxon, are without basis in the record.
Again, we urge the Division to deny the application.

Very truly yours,

HINKLE, COX, EATON, COFFIELD
& HENSLEY


James Bruce

JB:frs

c: William T. Duncan, Jr.
(w/encl.)
William F. Carr, Esq.
W. Thomas Kellahin, Esq.

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*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
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JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285
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March 8, 1993

Michael E. Stogner
Hearing Examiner
Oil Conservation Division
310 Old Santa Fe Trail
Room 219
Santa Fe, New Mexico 87501

HAND DELIVERED

Case No. 10667

RE: Application of Marathon Oil
Company for Establishment of
a Temporary Testing Allowable,
Vacuum-Drinkard Pool, Lea
County, New Mexico

Dear Mr. Stogner:

On behalf of Marathon Oil Company please find
enclosed our Proposed Order of the Division for the
above-referenced case. We have also enclosed a floppy
disk with this order on it for your use.

If you have questions or require anything else
with regard to this matter, please call.

Very truly yours,



W. Thomas Kellahin

WTK/jcl

Enclosures

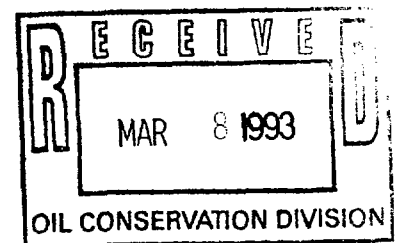
xc: With Proposed Order

Thomas C. Lowry, Esq. - Marathon Oil Co.

James Bruce, Esq.

William F. Carr, Esq.

lrr308.092



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 10667
ORDER NO. R-_____

APPLICATION OF MARATHON OIL COMPANY
FOR ESTABLISHMENT OF A TEMPORARY
TESTING ALLOWABLE, VACUUM-DRINKARD
POOL, LEA COUNTY, NEW MEXICO

MARATHON OIL COMPANY'S
PROPOSED
ORDER OF THE DIVISION

BY THE DIVISION:

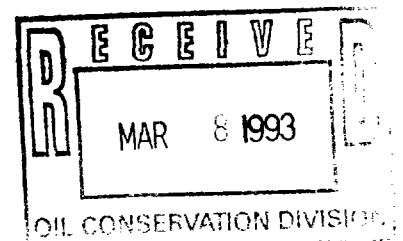
This cause came on for hearing at 8:15 a.m. on February 18, 1993, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this ____ day of March, 1993, 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, Marathon Oil Company ("Marathon"), is the operator of wells in its Warn State a/c 2 Lease ("Project Area") being the W/2 of Section 6, Township 18 South, Range 35 East, NMPM which produce from the Vacuum-Drinkard Pool.



(3) The Vacuum-Drinkard Pool is subject to statewide 40-acre oil spacing with oil production limited to a depth bracket oil allowable of 187 BOPD and a GOR of 2,000 cubic feet of gas per barrel of oil.

(4) Marathon seeks authority to establish a temporary testing allowable for its Warn State a/c 2 Lease Project Area in order to conduct special tests on its Warn State A/C 2 Well No 11 and on any other wells completed or to be completed in Zone (1) and/or Zone (2) in the Vacuum-Drinkard Pool within said Project for the purpose of gathering data to determine: (1) the most efficient producing rate for this particular reservoir or portion thereof and (2) the feasibility of a pressure maintenance project for the Project Area.

(5) Marathon proposes a temporary testing allowable for a maximum of six-months commencing on April 1, 1993 and ending on October 1, 1993 during which period any of its project wells completed in the Zone (1) and/or Zone (2) of the Vacuum-Drinkard Pool shall be allowed to produce at its capacity provided said production is confined to either of those two zones.

(6) Marathon proposes that the volume of oil accruing at the end of the testing period in excess of the maximum depth bracket allowable be identified as potential "over production" with this case being reopened and a determination made by the Division as to whether that over production is canceled or is required to be made up and if so in what manner.

(7) Marathon notified all operators in the pool with Texaco USA Inc. ("Texaco") and Exxon USA Inc. ("Exxon") appearing in opposition to granting the application.

(8) Marathon offered to amend its application in this case to provide a similar testing allowable opportunity to all operators in the pool but Texaco refused said offer and still opposes the application.

(9) Within the six month testing period, Marathon proposes to conduct:

(a) A pressure draw-down test to determine reservoir volume and permeability for a duration of not in excess of 2 months;

(b) A variable rate test to determine the maximum efficient rate of production for a duration of not in excess of 3.5 months; and

(c) An interference test to determine inter-well communication for a duration of approximately 2 weeks.

(10) In support of this application, Marathon provided the following testimony and evidence:

(a) A substantial number of wells have been drilled through the pool and provide significant geologic data from which to accurately project the reservoir in so far as it underlies the Project Area and the adjoining spacing units of Texaco and Exxon;

(b) The production within Vacuum-Drinkard Pool is obtained from four production zones, identified by Marathon's nomenclature as Zone (1) for the shallowest zone down through Zone (4) as the deepest producing zone in the pool;

(c) Isopach maps establish that Zones (1) and (2) is a carbonate reservoir with apparently limited extent;

(d) Historically production in the pool has been obtained from Zone (3) and Zone (4);

(e) Recently, Marathon and now Texaco have obtained production from Zone (1) and/or Zone (2);

(f) A spinner survey test of the Warn State a/c 2 Lease Well No 11 established that the current production in that well is from Zone (2);

(g) PVT analysis of fluid samples from the Warn State A/C 2 Lease Well No 11 coupled with Marathon's uncontested geologic interpretation established that Zone (2) of the pool is a solution gas drive reservoir with a reservoir bubble point pressure of 2350 psig and a reservoir solution GOR of 750 scf/stb. (See Marathon Exhibit 13);

(h) The current producing gas oil ratio of the Warn a/c 2 lease Well No 11 is 850 cubic feet of gas to a barrel of oil and increasing the producing rate from the pool should not increase the GOR;

(i) Current reservoir pressure as measured in the Warn State a/c 2 Lease Well No. 11 is still above the bubble point;

(j) In order to obtain the reservoir drawn down data, it is necessary to produce the well in excess of the top allowable in order to obtain a minimum stable flow rate; (See Marathon Exhibit 12)

(k) Structural maps establish that there is no structural enhancement to provide an opportunity for gravity drainage;

(l) There is no evidence to demonstrate that a single gas cap was originally present in this reservoir;

(m) Increasing the withdrawal rate from the reservoir during the test should not create a gas cap;

(n) The Pool is not rate sensitive, there is no water drive or gravity drainage affects upon production;

(o) There is no evidence of a fracture system in this carbonate reservoir which would be extensive enough to affect correlative rights if this application is approved;

(p) Of the Marathon wells in the Project Area only the Warn A/C 2 State Well No 11 with an optimum stabilized producing rate of 380 BOPD is capable of production in excess of the depth bracket allowable of 187 BOPD;

(q) Without the approval of the requested capacity allowable testing, producing the Warn State a/c State Lease Well No 11 at rates within the depth bracket allowable limits will not provide adequate reservoir data to determine either the ultimate appropriate rate of production for the pool or the feasibility of a pressure maintenance project;

(r) The maximum volume of oil to be produced during the test period above the allowable from the Warn State A/C Lease No 11 Well is estimated to be 23,000 BO which assumes that the well will not decline in its projected optimum stabilized daily producing rate of 380 BOPD over the entire 6 month test period; and

(s) There are adequate surface facilities within the Project Area for handling the additional testing allowable production.

(11) Exxon opposed the granting of the application but did not introduce any geologic or engineering evidence or testimony in support of its position.

(12) Texaco opposed the granting of the application with the testimony of a petroleum engineer but did not introduce any geologic or engineering evidence in support of its position.

(13) Texaco and Exxon did not submit any evidence to challenge Marathon's conclusion that granting the application will not damage the reservoir, reduce ultimate recovery or cause waste.

(14) But both Texaco and Exxon argued that each of their correlative rights may be impaired if the application is granted.

(15) Exxon's only spacing units in the pool which could be affected by this application are located in the Unit A and Unit B of Section 12, T18S, R34E, each of which has a well currently producing from the Abo formation but neither one of which is located within the reservoir limits of Zones (1) and (2).

(16) The probability that Exxon can produce from Zones (1) and (2) is so remote and the potential for uncompensated drainage of Exxon is so speculative, the Division finds that Exxon has no correlative rights at risk in this case.

(17) As to Texaco, while its SE/4 of Section 1, T18S, R34E is mapped to be within a portion of Zones (1) and (2) of the reservoir, it has the opportunity to protect its correlative rights with the recovery of its share of oil from the pool with its Well No 24R currently completed in both Zones (1) and (2) of the pool.

(18) While the potential exists that Texaco's correlative rights may temporarily be affected by Marathon accelerating the recovery of Marathon's share of the oil from the pool, there is no evidence that Texaco's correlative rights will be permanently impaired.

(19) Texaco's contention that its correlative rights in the SE/4 of Section 1 will be impaired is mere speculation at this time and is premature under the facts of this case.

(20) Contrary to the unsupported contentions of Texaco, if the test data establishes a limited reservoir and no drainage beyond Marathon's project area then Marathon has obtained no unfair advantage over Texaco and Texaco's correlative rights have not been impaired. And, in the alternative, if the test data establishes a reservoir large enough to allow the Texaco and Marathon wells to be in communication, then the reservoir will contain sufficient oil to allow Texaco to make up an advantage Marathon may gain during the test.

(21) A resolution of the issue concerning whether Texaco's correlative rights will be impaired in this case can be accurately, adequately and timely addressed by the Division at a hearing held after the completion of the test.

(22) In addition, both Texaco and Exxon argue that the reservoir data could be obtained by Marathon shutting in its Warn A/C State Lease 2 Well No 11 for a pressure build up test.

(23) Marathon argued that it would take more than 2 months of shut in time for the well in order to obtain reliable pressure build up data and that it was not economically practical to shut in that well for such an extended period of time; that the pressure build up test would only substitute for the pressure draw-down test and would not replace the necessity for the interference test or the variable rate test.

(24) The evidence presently available indicates that an increased rate of production from the wells in the Project Area for the test period will not result in damage to the reservoir nor have an adverse effect on the ultimate recovery from the pool.

(25) Within the limits of the testing period, Marathon should be afforded the opportunity and flexibility to obtain the reservoir data necessary to address the issue of maximum efficient rate of production and the feasibility of pressure maintenance.

(26) The approval of the requested test will afford an opportunity to gather reservoir data that cannot otherwise be efficiently and economically obtained.

(27) The proposed temporary testing allowable is necessary in order to obtain data from which to determine the most efficient rate of production for the proper development and depletion of the pool thereby preventing waste and protecting correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The request of Marathon Oil Company for a Temporary Testing Allowable for its Warn State a/c 2 Lease Project ("Project Area") comprising the W/2 of Section 6, T18S, R35E, NMPM is hereby GRANTED subject to the following conditions:

(a) A well qualifying for the test is limited to production from Zone (1) and/or Zone (2) of the Vacuum-Drinkard Oil Pool as identified on Marathon's Exhibit 2 (type log) and must be a well now completed or to be completed in the project area;

(b) The total test period shall be for a maximum of six consecutive months commencing not before April 1, 1993 and ending on or before October 1, 1993;

(c) In order to produce oil from a qualifying well in the project area in excess of the 187 BOPD depth bracket allowable for the pool, Marathon shall within the test period conduct a drawn-down test, interference test and variable rate test for said well; and

(d) During the test period any qualifying well in the project area shall be allowed to produce at its capacity.

(2) This case shall be reopened at an Examiner's hearing to be called after the conclusion of the test in order to determine whether production in excess of the depth bracket allowable shall be canceled or made up.

(3) Jurisdiction of the parties and the subject matter of this cause is retained for the entry of such further orders as the Division may deem necessary.

NMOCD CASE NO. 10667
Order No. R- _____
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DONE at Santa Fe, New Mexico, on the day and year
hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director