



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

October 31, 1996

Marathon Oil Company
P. O. Box 552
Midland, Texas 79702
Attention: Walter J. Ducease

Administrative Order DD-156(H)
High Angle/Horizontal Wellbore

Dear Mr. Ducease:

Reference is made to Marathon Oil Company's ("Marathon") application dated September 25, 1996 for authorization to recomplete its existing North Indian Basin Unit Well No. 14 (API No. 30-015-28143) by side tracking off of the vertical wellbore and drilling horizontally in order to further develop the South Dagger Draw-Upper Pennsylvanian Associated Pool underlying the N/2 equivalent of Section 2, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico.

The Division Director Finds That:

- (1) The application has been duly filed under the provisions of Rule 111(D) and (E) of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;
- (2) The North Indian Basin Unit Well No. 14, located 660 feet from the North line and 2310 feet from the East line (Lot 2/Unit B) of said Section 2, was originally drilled to and completed within the South Dagger Draw-Upper Pennsylvanian Associated Pool in January, 1994;
- (3) By Order No. R-5353, as amended by supplemental Orders "A", "L", and "L-1" the Division promulgated "*Special Rules and Regulations For The South Dagger Draw-Upper Pennsylvanian Associated Pool*", which includes provisions for 320-acre spacing and proration units for both oil and gas and well location requirements which provides that wells be no closer than 660 feet to the outer boundary of a 320-acre spacing unit and not closer than 330 feet to any quarter-quarter section line or subdivision inner boundary thereon;
- (4) Further, under Division Order Nos. R-4691-E/R-5353-L-2 and R-4691-F/R-5353-L-3, certain proration units within the South Dagger Draw-Upper Pennsylvanian Associated Pool are subject to additional production limitations and restrictions;
- (5) A high angle/horizontal wellbore should provide Marathon the opportunity to maximize drainage within the Upper Pennsylvanian formation and to allow for the recovery of

additional reserves that might not otherwise be recovered;

- (6) The applicant/operator proposes to recompleat its North Indian Basin Unit Well No. 14 by milling a window in the existing production casing and kick-off from vertical at a depth of approximately 7,600 feet, drill in a westerly direction with a short radius curve (47 degrees per 100 feet), build the curved portion until an angle of 90 degrees, and continue to drill horizontally within the Upper Pennsylvanian formation a lateral distance of approximately 1300 feet;
- (7) Within said Section 2 the following wells, all within Marathon's North Indian Basin Unit, are currently completed within the South Dagger Draw-Upper Pennsylvanian Associated Pool:
 - (a) Well No. 11 (API No. 30-015-28232), located 660 feet from the South line and 1980 feet from the East line (Unit O);
 - (b) Well No. 12 (API No. 30-015-28258), located 660 feet from the South and West lines (Unit M);
 - (c) Well No. 13 (API No. 30-015-28068), located 2050 feet from the North line and 660 feet from the East line (Unit H);
 - (d) Well No. 14 (API No. 30-015-28143), located 660 feet from the North line and 2310 feet from the East line (Lot 2/Unit B);
 - (e) Well No. 15 (API No. 30-015-28305), located 1980 feet from the North line and 1830 feet from the West line (Unit F);
 - (f) Well No. 18 (API No. 30-015-28435), located 2310 feet from the South line and 1650 feet from the East line (Unit J);
 - (g) Well No. 20 (API No. 30-015-28384), located 1650 feet from the South line and 2310 feet from the West line (Unit K);
 - (h) Well No. 23 (API No. 30-015-28578), located 760 feet from the North and West lines (Lot 4/Unit D); and,

- (i) Well No. 26 (API No. 30-015-28752), located 2310 feet from the North line and 660 feet from the West line (Unit E);
- (8) The "project area" as proposed by Marathon, should comprise of Lots 1, 2, 3, and 4 and the S/2 N/2 (N/2 equivalent) of said Section 2, thereby forming a standard 320.28-acre spacing and proration unit for the South Dagger Draw-Upper Pennsylvanian Associated Pool;
- (9) Within the subject 320.28-acre spacing and proration unit, or "project area", Marathon proposes to simultaneously dedicate South Dagger Draw-Upper Pennsylvanian Associated Pool production from the subject North Indian Basin Unit Well No. 14 with the aforementioned North Indian Basin Unit Well Nos. 13, 15, 23, and 26 in units "H", "F", "D", and "E", respectively, of said Section 2;
- (10) As a result of the formation of this N/2 320.28-acre spacing and proration unit, the S/2 of said Section 2 is to be simultaneously dedicate to the Marathon North Indian Basin Unit Well Nos. 11, 12, 18, and 20 in units "O", "M", "J", and "M", respectively, of said Section 2;
- (11) Marathon is to submit within 10-days from the date of this order new O.C.D. Form C-102's for each of the nine North Indian Basin Unit wells described above in Finding Paragraph No. (7) above;
- (12) The applicable drilling window or "producing area" for the North Indian Basin Unit Well No. 14 should include that area within the N/2 equivalent of said Section 2 that is no closer than 660 feet to the outer boundary of the "project area"; and,
- (13) It appearing the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the North Indian Basin Unit Well No. 14 should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Marathon Oil Company ("Marathon"), is hereby authorized to recomplete its North Indian Basin Unit Well No. 14 (API No. 30-015-28143), located 660 feet from the North line and 2310 feet from the East line (Lot 2/Unit B) of Section 2, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico, by milling a window in the existing production casing and kick-off from vertical at a depth of approximately 7,600 feet, drill in a westerly direction with a short radius curve (47 degrees per 100 feet), build the curved portion until an angle of 90 degrees, and continue to drill horizontally within the Upper Pennsylvanian formation a lateral distance of approximately 1300 feet.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said

wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Artesia district office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Artesia offices of the Division upon completion.

(3) The "project area" for said horizontal well shall also correspond with a standard 320.28-acre spacing and proration unit for the South Dagger Draw-Upper Pennsylvanian Associated Pool comprise Lots 1, 2, 3, and 4 and the S/2 N/2 (N/2 equivalent) of said Section 2, whereby South Dagger Draw-Upper Pennsylvanian Associated Pool production from the subject North Indian Basin Unit Well No. 14 is to be simultaneously dedicated with the following four wells all located in said Section 2:

(i) Well No. 13 (API No. 30-015-28068), located 2050 feet from the North line and 660 feet from the East line (Unit H);

(ii) Well No. 15 (API No. 30-015-28305), located 1980 feet from the North line and 1830 feet from the West line (Unit F);

(iii) Well No. 23 (API No. 30-015-28578), located 760 feet from the North and West lines (Lot 4/Unit D); and,

(iv) Well No. 26 (API No. 30-015-28752), located 2310 feet from the North line and 660 feet from the West line (Unit E).

(4) The applicable drilling window or "producing area" for the North Indian Basin Unit Well No. 14 should include that area within the N/2 equivalent of said Section 2 that is no closer than 660 feet to the outer boundary of the "project area".

(5) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F and Order Nos. R-5353, as amended by supplemental Orders "A", "L", "L-1", "L-2", "L-3", R-4691-E, and R-4691-F.

(6) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY
Director

SEAL

WJL/MES/kv

cc: Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad

DD- NIBU-14

Rec: 9-26-96

Susp: 10-16-96

Released - 10/31/96

October 31, 1996

Marathon Oil Company
P. O. Box 552
Midland, Texas 79702

Attention: Walter J. Dueease

156

Administrative Order DD-*****^(H)
High Angle/Horizontal Wellbore

Dear Mr. Dueease:

Reference is made to Marathon Oil Company's ("Marathon") application dated September 25, 1996 for authorization to recomplete its existing North Indian Basin Unit Well No. 14 (API No. 30-015-28143) by side tracking off of the vertical wellbore and drilling horizontally in order to further develop the South Dagger Draw-Upper Pennsylvanian Associated Pool underlying the N/2 equivalent of Section 2, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico.

The Division Director Finds That:

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- (2) The North Indian Basin Unit Well No. 14, located 660 feet from the North line and 2310 feet from the East line (Lot 2/Unit B) of said Section 2, was originally drilled to and completed within the South Dagger Draw-Upper Pennsylvanian Associated Pool in January, 1994;
- (3) By Order No. R-5353, as amended by supplemental Orders "A", "L", and "L-1" the Division promulgated "*Special Rules and Regulations For The South Dagger Draw-Upper Pennsylvanian Associated Pool*", which includes provisions for 320-acre spacing and proration units for both oil and gas and well location requirements which provides that wells be no closer than 660 feet to the outer boundary of a 320-acre spacing unit and not closer than 330 feet to any quarter-quarter section line or subdivision inner boundary thereon;
- (4) Further, under Division Order Nos. R-4691-E/R-5353-L-2 and R-4691-F/R-5353-

L-3, certain proration units within the South Dagger Draw-Upper Pennsylvanian Associated Pool are subject to additional production limitations and restrictions;

- (5) A high angle/horizontal wellbore should provide Marathon the opportunity to maximize drainage within the Upper Pennsylvanian formation and to allow for the recovery of additional reserves that might not otherwise be recovered;
- (6) The applicant/operator proposes to recomplete its North Indian Basin Unit Well No. 14 by milling a window in the existing production casing and kick-off from vertical at a depth of approximately 7,600 feet, drill in a westerly direction with a short radius curve (47 degrees per 100 feet), build the curved portion until an angle of 90 degrees, and continue to drill horizontally within the Upper Pennsylvanian formation a lateral distance of approximately 1300 feet;
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- (10) As a result of the formation of this N/2 320.28-acre spacing and proration unit, the S/2 of said Section 2 is to be simultaneously dedicate to the Marathon North Indian Basin Unit Well Nos. 11, 12, 18, and 20 in units "O", "M", "J", and "M", respectively, of said Section 2;
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IT IS THEREFORE ORDERED THAT:

- (1) The applicant, Marathon Oil Company ("Marathon"), is hereby authorized to recomplete its North Indian Basin Unit Well No. 14 (API No. 30-015-28143), located 660 feet from the North line and 2310 feet from the East line (Lot 2/Unit B) of Section 2, Township 21

South, Range 23 East, NMPM, Eddy County, New Mexico, by milling a window in the existing production casing and kick-off from vertical at a depth of approximately 7,600 feet, drill in a westerly direction with a short radius curve (47 degrees per 100 feet), build the curved portion until an angle of 90 degrees, and continue to drill horizontally within the Upper Pennsylvanian formation a lateral distance of approximately 1300 feet.

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(5) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F and Order Nos. R-5353, as amended by supplemental Orders "A", "L", "L-1", "L-2", "L-3", R-4691-E, and R-4691-F.

(6) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

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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

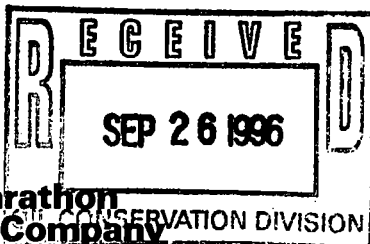
S E A L

WJL/MES/kv

cc: Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad



Marathon
Oil Company OIL CONSERVATION DIVISION



Mid-Continent Region
Production United States

P.O. Box 552
Midland, Texas 79702
Telephone 915/682-1626

September 25, 1996

CERTIFIED MAIL

Mr. Michael E. Stogner
Energy Minerals & Natural Resources Dept.
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Re: Re-enter & Directionally Drill
North Indian Basin Unit #14
SHL: Lot 2, 660' FNL & 2310' FEL
Sec. 2, T-21-S, R-23-E
Eddy County, New Mexico
BHL: Lot 3, 785' FNL & 1661' FWL
Sec. 2, T-21-S, R-23-E
Eddy County, New Mexico

Dear Mr. Stogner;

Marathon Oil Company requests Administrative Approval to re-enter the above referenced Dagger Draw, South (Upper Penn) oil well and drill a directional well.

Marathon proposes to directionally drill from the existing well into the Upper Penn Formation as economics are more favorable to utilize the existing wellbore of North Indian Basin Unit #14. This proposed well shall have a Project Area of 320 acres or the N/2 of Section 2.

To support this request, we submit the following in duplicate:

- 1) Plat indicating Location, Project Area and Offset Operators,
- 2) Vertical Plan View,
- 3) Horizontal Plan View,
- 4) Typelog,
- 5) Offset Operator List,
- 6) Offset Operator Notification,
- 7) Sundry Notification and Drilling Program.

We wish to begin operations on this well by October 25, 1996 to utilize a drilling contractor currently working in the Dagger Draw Area. Please call me at 800/351-1417 if you have any questions.

Very truly yours,

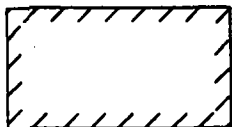
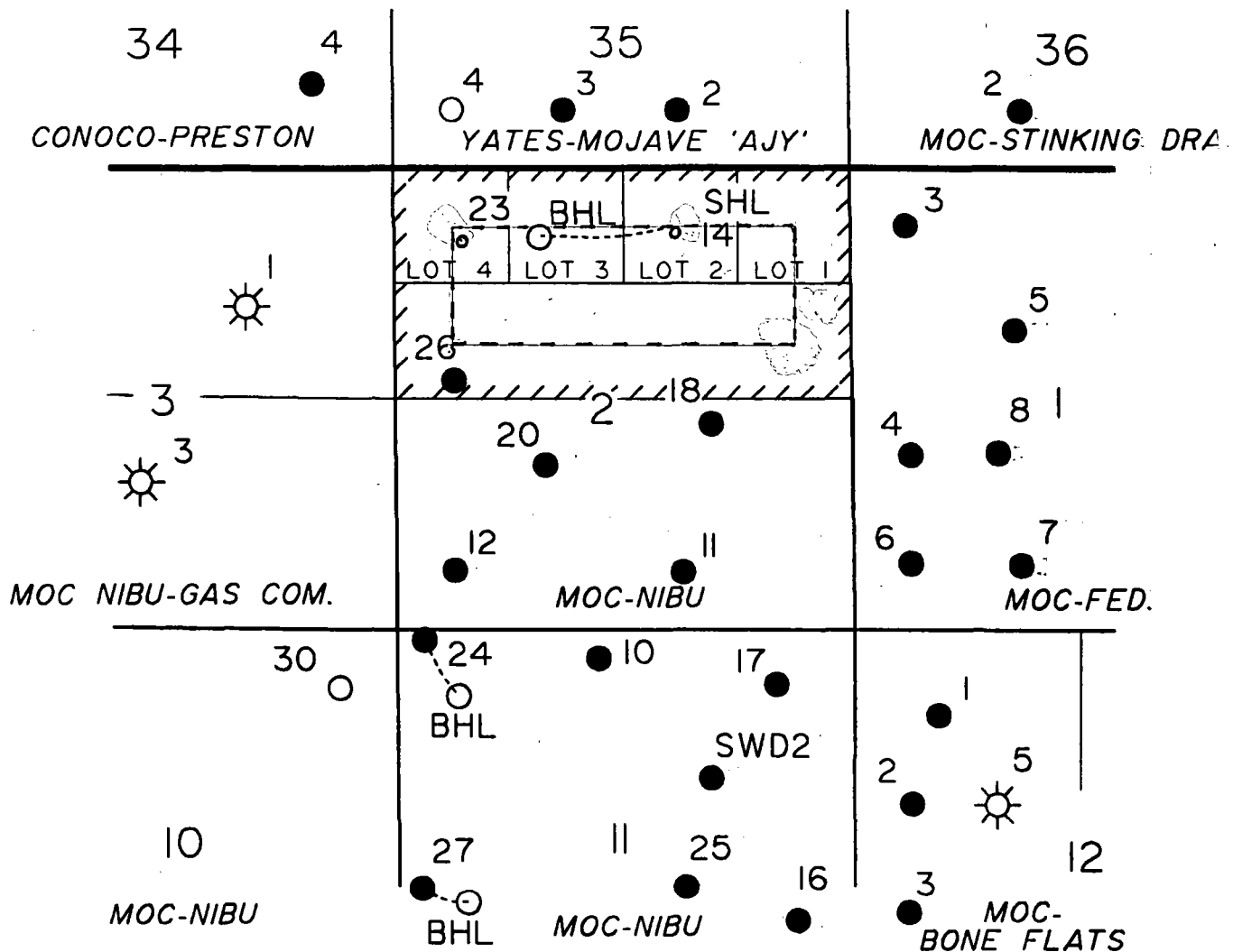
Walter J. Dueease
MARATHON OIL COMPANY

EDDY CO., NEW MEXICO SOUTH DAGGER DRAW UPPER PENN. ASSOCIATED POOL

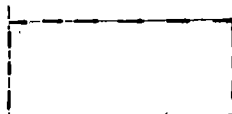
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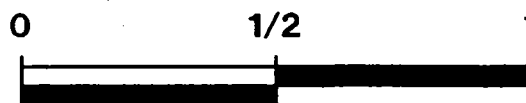


320 ACRE
PRORATION UNIT / PROJECT AREA



PRODUCING AREA

MARATHON OIL COMPANY
MID-CONTINENT REGION



MILE

MARATHON OIL COMPANY

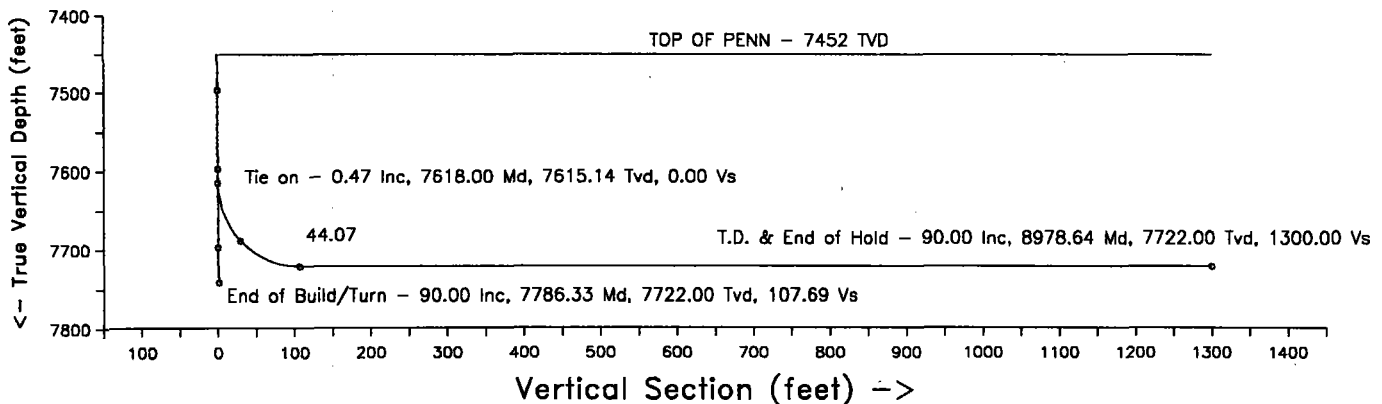
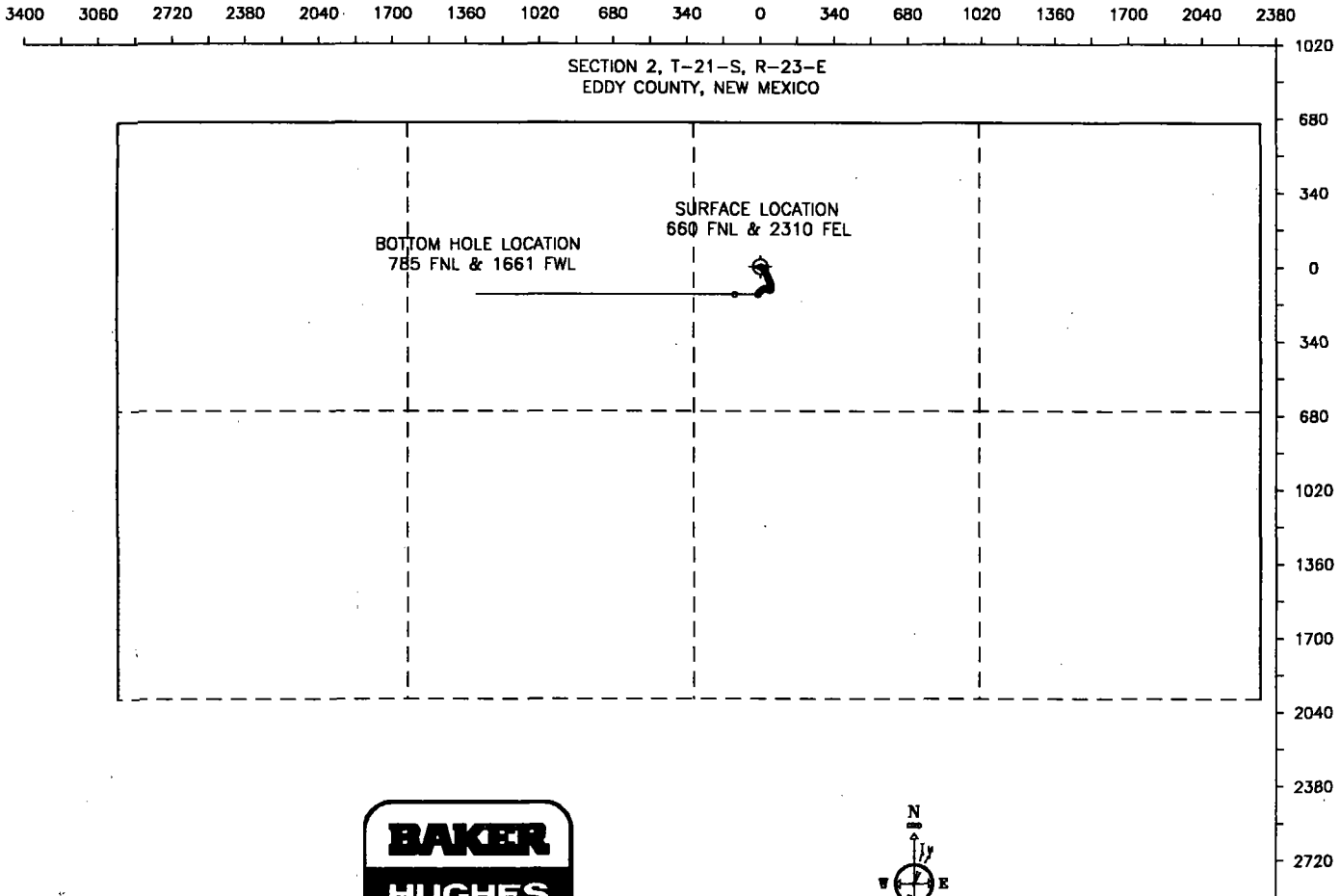
Structure : NIBU NO.14

Slot : slot #1

Field : UNKNOWN

Location : EDDY CO., NEW MEXICO

<- West (feet)



Azimuth 270.00 with reference 124.94 S, 9.45 W from structure

Mid-Continent Region
Production United States



**Marathon
Oil Company**

P.O. Box 552
Midland, Texas 79702
Telephone 915/682-1626

NORTH INDIAN BASIN UNIT #14
660' FNL & 2310' FEL, Sec. 2, T-21-S, R-23-E
Eddy County, New Mexico

OFFSET OPERATOR LIST

Yates Petroleum
105 S. 4th Street
Artesia, NM 88210

Conoco, Inc.
10 Desta Drive, Suite 100 West
Midland, TX 79705



**Marathon
Oil Company**

P.O. Box 552
Midland, Texas 79702
Telephone 915/682-1626

September 25, 1996

Mrs. Kathy Porter
Yates Petroleum
105 S. 4th
Artesia, NM 88210

Re: Re-enter & Sidetrack
North Indian Basin Unit #14
Lot 2, 660' FNL & 2310' FEL
Sec. 2, T-21-S, R-23-E
Eddy County, New Mexico
BHL: Lot 3, 785' FNL & 1661' FWL
Sec. 2, T-21-S, R-23-E
Eddy County, New Mexico

Dear Mrs. Porter:

Subject to Administrative Approval by the New Mexico Oil Conservation Division, Marathon Oil Company proposes to re-enter and sidetrack the above referenced Dagger Draw, South (Upper Penn) Oil Well and horizontally drill to an orthodox bottom hole location in the Dagger Draw, South (Upper Penn) at 785' FNL & 1661' FWL, Sec. 2, T-21-S, R-23-E, 7722' TVD, 7786' MD.

As Offset Operator, you are hereby notified of Marathon's intent to horizontally sidetrack the above referenced well. Should you have any objection, you must file a protest in writing with the New Mexico Oil Conservation Division within twenty (20) days of the date of this notice.

If you have no objection to this request, please signify by signing below and returning one executed copy to me in the envelope provided.

Enclosed please find a copy of the Application to Drill as submitted to the Bureau of Land Management.

Should you have any questions, please feel free to call me at (800)351-1417.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Walter J. Dueense'.

Walter J. Dueense
MARATHON OIL COMPANY

YATES PETROLEUM HAS NO OBJECTION TO MARATHON OIL COMPANY'S INTENT TO DIRECTIONALLY SIDETRACK THE NORTH INDIAN BASIN UNIT #14 TO A BHL AT 785' FNL & 1661' FWL, SEC. 2, T-21-S, R-23-E, EDDY COUNTY, NEW MEXICO.

By: _____
Title: _____
Date: _____



P.O. Box 552
Midland, Texas 79702
Telephone 915/682-1626

September 25, 1996

Mr. John Sutey
Conco, Inc.
10 Desta Drive, Suite 100 W
Midland, TX 79705

Re: Re-enter & Sidetrack
North Indian Basin Unit #14
Lot 2, 660' FNL & 2310' FEL
Sec. 2, T-21-S, R-23-E
Eddy County, New Mexico
BHL: Lot 3, 785' FNL & 1661' FWL
Sec. 2, T-21-S, R-23-E
Eddy County, New Mexico

Dear Mr. Sutey:

Subject to Administrative Approval by the New Mexico Oil Conservation Division, Marathon Oil Company proposes to re-enter and sidetrack the above referenced Dagger Draw, South (Upper Penn) Oil Well and horizontally drill to an orthodox bottom hole location in the Dagger Draw, South (Upper Penn) at 785' FNL & 1661' FWL, Sec. 2, T-21-S, R-23-E, 7722' TVD, 7786' MD.

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Very truly yours,

A handwritten signature in cursive script, appearing to read 'Walter J. Dubease'.

Walter J. Dubease
MARATHON OIL COMPANY

CONOCO, INC. HAS NO OBJECTION TO MARATHON OIL COMPANY'S INTENT TO DIRECTIONALLY SIDETRACK THE NORTH INDIAN BASIN UNIT #14 TO A BHL AT 785' FNL & 1661' FWL, SEC. 2, T-21-S, R-23-E, EDDY COUNTY, NEW MEXICO.

By: _____
Title: _____
Date: _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Marathon Oil Company

3. Address and Telephone No.
P.O. Box 552, Midland, TX 79702 915/687-8344

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Lot 2, 660' FNL & 2310' FEL
Sec. 2, T-21-S, R-23-E

5. Lease Designation and Serial No.
NM-04827-B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation
N. Indian Basin Unit

8. Well Name and No.
N. Indian Basin Unit #14

9. API Well No.
30-015-28143

10. Field and Pool, or exploratory Area
S. Dagger Draw, U. Penn

11. County or Parish, State
Eddy NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☒ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Directional Sidetrack
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Propose to re-enter NIBU #14, squeeze existing Canyon perforations, cut window in 7" casing at +/- 7575, drill 1300' of 4 3/4" lateral to BHL at 785' FNL & 1661' FWL, Sec. 2, T-21-S, R-23-E

Mud Program: Csg. Section; F.W. Gel
MW-8.9-9.2 Vis. 38-46
Lateral Section; Produced Water w/XCD Polymer
MW-8.7-9.0 Vis. 28-32

BOPE: 7 1/16" 3m, dual ram w/annular or rotating head (hydraulic).
Well is proposed as an open hole completion.

Proposed activity will utilize the existing pad area and no new surface area will be disturbed. A 50' x 50' reserve pit will be dug in the existing pit area to contain wellbore cuttings. The pit will be lined with 8 mil plastic and restored upon completion.

Please refer to attached Horizontal and Vertical Directional Plan, Drilling Program, and Pad Layout.

14. I hereby certify that the foregoing is true and correct

Signed Walter J. Duman Title Drilling Superintendent Date 9/24/96

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any: _____

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-28143	Pool Code	Pool Name Dagger Draw, South (Upper Penn)
Property Code	Property Name NORTH INDIAN BASIN UNIT	Well Number 14
OGRID No. 14021	Operator Name MARATHON OIL CO.	Elevation 3696'

Surface Location

UL or lot No. Lot 2	Section 2	Township 21 S	Range 23 E	Lot Idn	Feet from the 660'	North/South line NORTH	Feet from the 2310'	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

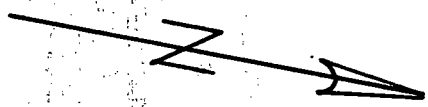
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>Lot 4 40.09 AC.</p> <p>Lot 3 40.08 AC.</p> <p>Lot 1 40.05 AC.</p> <p>Lot 2 40.08 AC.</p> <p>BHL 785' FNL 1661' FWL</p> <p>880'</p> <p>3709.3' 3690.7'</p> <p>2310'</p> <p>3702.4' 3683.4'</p> <p>23</p> <p>26</p> <p>15</p> <p>13</p> <p>18</p> <p>20</p> <p>12</p> <p>11</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>W. J. Arnold</i> Signature T. B. Arnold Printed Name Drilling Supt. Title 8-24-94 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p>AUGUST 18, 1994</p> <p>Date Surveyed Signature & Seal of Professional Surveyor <i>Ronald J. Edson</i> W.O. Num. 8411-1465</p> <p>Certificate No. JOHN W. WEST, 676 RONALD J. EDSON, 3239</p>
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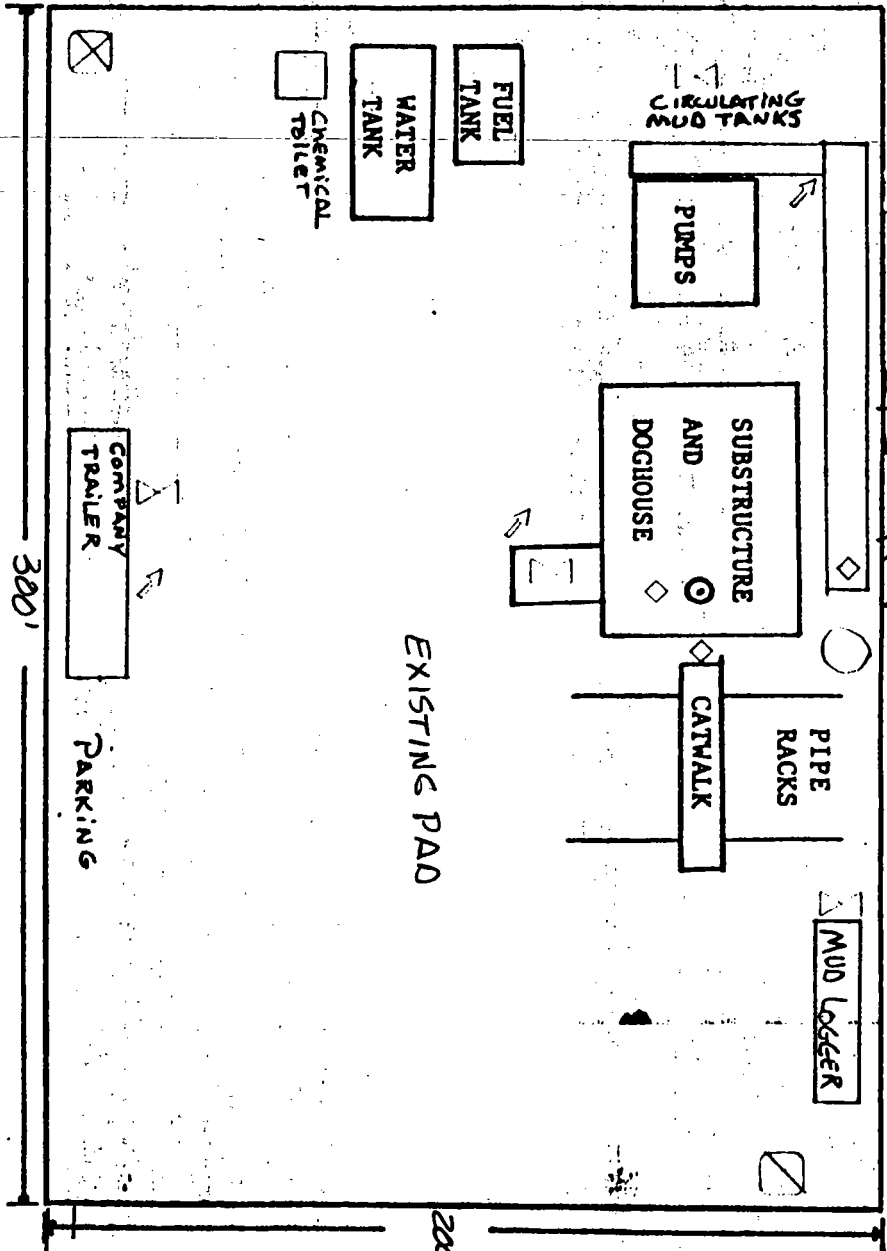
NORTH INDIAN BASIN Unit #14

EXISTING RECLAIMED RESERVE PIT AREA

RESERVE PIT TO BE CONSTRUCTED INSIDE EXISTING RECLAIMED RESERVE PIT AREA



- ◇ H2S Detection Equipment
- ↖ Wind Direction Indicator
- ⌒ Self Contained Breathing Equip.
- ⊗ Briefing Area



Prevailing Wind Direction Southwest

Foot-path for emergency egress

EXISTING ACCESS

NORTH INDIAN BASIN UNIT NO. 14
Unit B, 660' FNL & 2,310' FEL
Section 2, T-21-S, R-23-E
Eddy County, New Mexico

AEE:

Date: September 14, 1996

MOC: WI - 90.6825% NRI - 77.7180%

Purpose: Drill 1200' short-radius lateral

Elevation: GL - 3,696' KB - 3,712' PBTD - 7,773' (CIBP)

Surface Casing: 9 5/8" O.D., 36#, J-55 set at 1,213'. Cement w/ 684 sxs., Circ.

Production Casing: 7" O.D., 23# & 26#, K-55 set at 7,989', DV tool at 6,028'.
Cement 1st stage w/ 475 sxs., circ. 100 sxs. Cement 2nd stage w/
775 sxs., circ.

Tubing: BP MA, perf sub, 10 jts. 2 7/8" O.D., 6.5#, L-80 tubing, 2 7/8" X 7" TAC,
236 jts. 2 7/8" O.D., 6.5#, L-80 tubing, 2 - 2 7/8" O.D., L-80, 6.5# tubing
subs.

Rods/Pump: 2 1/2" X 1 3/4" X 26' Pump w/ 1 1/4" X 8' gas anchor, 1 - 1" N97 rod,
33K shear tool, 154 - 1" N97 rods, 102 - 1.25" FG rods, 1 - 1.25" X 3'
pony rod, 1 1/2" X 24' PR w/ 1 3/4" X 16' PRL.

Perforations: Canyon: 7588' - 7602', 7620' - 7644', 7654' - 7684', 7690' - 7706', and
7716' - 7754'
2nd Canyon (Below CIBP): 7783' - 7800'

Estimated SBHP: 1,900 psi

FL-62 + 0.3% CD-32 + 0.2% SM mixed at 14.8 PPG w/ 1.33 yield. Reverse out tubing and TOO H.

8. PU 6 1/8" bit, 6 - 4 1/2" DC's and TIH on 2 7/8" O.D. tubing. Drill out retainer and cement. Clean out hole to 7900'. Test squeeze to 500 psi. TOO H, laying down.
9. RU Wireline unit. Set CIBP at 7648' (top of plug). RD Wireline unit. ND BPOE, NU wellhead. RDMO pulling unit.
10. Clean location and cover anchors. MIRU drilling rig. Test BOPE to 250/1500 psi. TIH picking up 3 1/2" O.D. drillpipe to 7550'. Mud up with FW gel at 10 PPB and Drill Out at 0.25 PPB in FW for a funnel vis of 40+ and YP of 25+.
11. PU 5.5" Weatherford 3 Degree "WhipBack" whipstock assembly, starting mill, and orientation sub. Space out anchor so that top of whipstock will be at 7610'. TIH w/ 6 - 4 3/4" O.D. DC's on 3 1/2" drillpipe. RU Wireline unit. Run GR-CCL for depth correlation. Desired top of whipstock is 7610'. RU and run SRG to orient whipstock at 270 degrees Az. Set whipstock and release starting mill. Start casing exit w/ starting mill. TOO H. PU Window mill, and Watermelon mill. TIH. Finish casing exit. Dress out window and circulate hole clean. Displace mud system with produced water. TOO H
12. PU 4 3/4" HTC STR-44C bit, 3 3/4" X motor, 3 1/2" O.D. Monel DC, MWD flow sub, and orienting sub, followed by 1500' 2 7/8" O.D., 10.4#, S-135, AOH drillpipe on 3 1/2" O.D., 13.3#, Grade E drillpipe.
13. RU SRG and orient motor for 270 degree Az. kickoff. Control drill 15' at 2-3'/hour for 15 feet. Run SRG gyro survey to confirm orientation. Drill curve section as per the attached directional program. Pump Viscous sweeps as necessary to clean the hole. TOO H.
14. PU 4 3/4" HTC J-44C bit, 3 3/4" XL motor, 3 1/2" O.D. Monel DC, and MWD flow sub on 1500' 2 7/8" O.D., 10.4#, S-135, AOH drillpipe on 3 1/2" O.D., 13.3#, Grade E drillpipe. Drill lateral section as per the attached directional program using FW/MF-55 fluid system. If severe seepage is encountered, mud up with Flowzan(XCD polymer). Circulate hole clean and displace hole with produced water. TOO H, laying down 2 7/8" O.D. drillpipe.

SOUTH DAGGER DRAW

TYPE LOG

NIBU NO. 12

74C

3743' KB

UPPER PENN

7500

7600

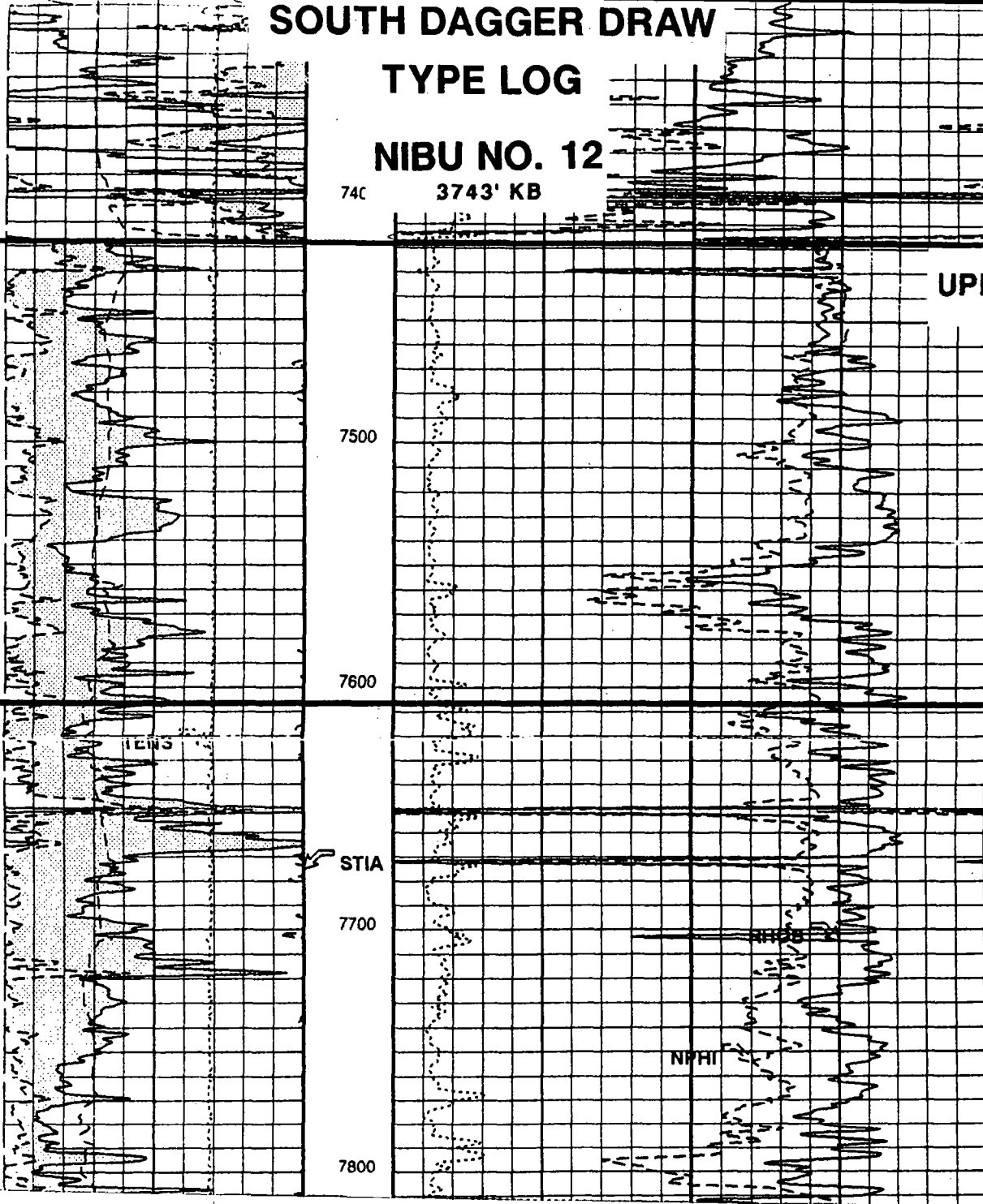
STIA

7700

7800

NPHI

DAGGER DRAW OIL POOL



CMD :
OG6IWCM

ONGARD
INQUIRE WELL COMPLETIONS

10/30/96 11:03:22
OGOMES -EMFI

API Well No : 30 15 28258 Eff Date : 07-01-1995 WC Status : A
Pool Idn : 15475 DAGGER DRAW;UP PENN, SOUTH (ASSOC)
OGRID Idn : 14021 MARATHON OIL CO
Prop Idn : 6411 NORTH INDIAN BASIN UNIT

Well No : 012
GL Elevation: 3727

U/L	Sec	Township	Range	North/South	East/West	Prop/Act (P/A)
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B.H. Locn	: M	2	21S	23E	FTG 660 F S FTG 660 F W	P
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Lot Identifier:

Dedicated Acre: 320.00

Lease Type : S

Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

M0025: Enter PF keys to scroll

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07	PF08	PF09	PF10 NEXT-WC	PF11 HISTORY	PF12 NXTREC

CMD : , ONGARD 10/30/96 11:06:14
OG6C102 C102-WELL LOCATION, DEDICATED ACREAGE PLAT OGOMES -EMFI

API Well No : 30 15 28258 Well No : 12 Eff Date : 07-01-1995
Pool Idn : 15475 DAGGER DRAW;UP PENN, SOUTH (ASSOC)

Prop Idn : 6411 NORTH INDIAN BASIN UNIT

OGRID Idn : 14021 MARATHON OIL CO
GL Elevation : 3727

	U/L	Sec	Township	Range	North/South	East/West	Prop/Act (P/A)
B.H. Locn	M	2	21S	23E	FTG 660 F S	FTG 660 F W	P
OCD U/L							
Lot Identifier:			API County		: 15		

If more than 1 lease of different ownership is dedicated to the
well, have the interest of all owners been consolidated? (Y/N) :
Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

E0009: Enter data to modify record

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07	PF08	PF09 PRINT	PF10 NEXT-WC	PF11 HISTORY	PF12 ACRE

API Well No : 30 15 28258 Eff Date : 03-22-1996
Pool Idn : 15475 DAGGER DRAW;UP PENN, SOUTH (ASSOC)
Prop Idn : 6411 NORTH INDIAN BASIN UNIT Well No : 12
Spacing Unit : 48235 OCD Order : Simultaneous Dedication:
Sect/Twp/Rng : Acreage : 320.00 Revised C102? (Y/N) :
Dedicated Land:

S	Base	U/L	Sec	Twp	Rng	Acreage	L/W	Ownership	Lot	Idn
		I	2	21S	23E	40.00	N	ST		
		J	2	21S	23E	40.00	N	ST		
		K	2	21S	23E	40.00	N	ST		
		L	2	21S	23E	40.00	N	ST		
		M	2	21S	23E	40.00	N	ST		
		N	2	21S	23E	40.00	N	ST		
		O	2	21S	23E	40.00	N	ST		
		P	2	21S	23E	40.00	N	ST		

E0005: Enter data to modify or PF keys to scroll

```
PF01 HELP      PF02          PF03 EXIT      PF04 GoTo      PF05          PF06 CONFIRM
PF07 BKWD      PF08 FWD      PF09          PF10 LAND      PF11 NXTSEC    PF12 RECONF
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CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

10/18/96 16:41:31
OGOMES -EME8
PAGE NO: 1

Sec : 02 Twp : 21S Rng : 23E Section Type : NORMAL

4 40.09 Federal owned U A	3 40.08 Federal owned U	2 40.06 Federal owned U A	1 40.05 Federal owned U
E 40.00 Federal owned U A	F 40.00 Federal owned U A	G 40.00 Federal owned U	H 40.00 Federal owned U A

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07 BKWD	PF08 FWD	PF09 PRINT	PF10 SDIV	PF11	PF12

~~320.00~~
320.28

.17
.
28

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

10/18/96 16:41:45
OGOMES -EME8
PAGE NO: 2

Sec : 02 Twp : 21S Rng : 23E Section Type : NORMAL

L 40.00 CS E07906 2 02/64 MARATHON OIL CO U	K 40.00 CS E07906 2 02/64 MARATHON OIL CO U A	J 40.00 CS E07906 2 02/64 MARATHON OIL CO U A	I 40.00 CS E07906 2 02/64 MARATHON OIL CO U
M 40.00 CS E07906 2 02/64 MARATHON OIL CO U A	N 40.00 CS E07906 2 02/64 MARATHON OIL CO U	O 40.00 CS E10170 2 06/66 BHP PETROLEUM (AM U A	P 40.00 CS E07906 2 02/64 MARATHON OIL CO U

PF01 HELP
PF07 BKWD

PF02
PF08 FWD

PF03 EXIT
PF09 PRINT

PF04 GoTo
PF10 SDIV

PF05
PF11

PF06
PF12



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

**OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131**

February 13, 1998

**Marathon Oil Company
P.O. Box 552
Midland, Texas 79702-0552
Attention: Thomas M. Price**

Administrative Order NSL-3945

Dear Mr. Price:

Reference is made to the following: (i) Marathon Oil Company's ("Marathon") original application to the Artesia District Office of the New Mexico Oil Conservation Division, dated June 19, 1997; (ii) the provisions of Division Administrative Order DD-156(H); (iii) the records of the Division in Santa Fe; and, (iv) the *"General Rules and Regulations for the Associated Oil and Gas Pools of Northwest New Mexico and Southeast New Mexico/Special Rules and Regulations for the South Dagger Draw-Upper Pennsylvanian Associated Pool,"* as promulgated by Division Order No. R-5353, as amended by supplemental Orders "A," "L," "L-1," "L-2," "L-3," R-4691-E, and R-4691-F, which includes provisions for 320-acre spacing and proration units for both oil and gas and well a location requirement which provides that wells be no closer than 660 feet to the outer boundary of a 320-acre spacing unit and not closer than 330 feet to any quarter-quarter section line or subdivision inner boundary thereon: all concerning Marathon's request of an unorthodox well location in an existing standard 320.28-acre "lay-down" spacing and proration unit for the South Dagger Draw-Upper Pennsylvanian Associated Pool comprising Lots 1, 2, 3, and 4, and the S/2 N/2 (N/2 equivalent) of Section 2, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico. Said 320.28-acre unit was established by Division Administrative Order DD-156(H), dated October 31, 1996, when the orientation of two existing 320-acre, more or less, "stand-up" spacing and proration units in said Section 2 were changed to form two "lay-down" 320-acre, more or less, units in order to accommodate the drilling of a directional horizontal drainhole in Marathon's North Indian Basin Unit Well No. 14 (API No. 30-015-28143), located 660 feet from the North line and 2310 feet from the East line (Lot 2/Unit B) of said Section 2.

At the inception of said Administrative Order DD-156(H) South Dagger Draw-Upper Pennsylvanian Associated Pool oil and gas production from the subject 320.28-acre lay-down spacing and proration unit was simultaneously dedicated to the following five wells all located in the N/2 equivalent of said Section 2:

- (i) North Indian Basin Unit Well No. 13 (API No. 30-015-28068), located 2050 feet from the North line and 660 feet from the East line (Unit H);
- (ii) the aforementioned North Indian Basin Unit Well No. 14;
- (iii) Well No. 15 (API No. 30-015-28305), located 1980 feet from the North line and 1830 feet from the West

line (Unit F);

(iv) Well No. 23 (API No. 30-015-28578), located 760 feet from the North and West lines (Lot 4/Unit D); and,

(v) Well No. 26 (API No. 30-015-28752), located 2310 feet from the North line and 660 feet from the West line (Unit E).

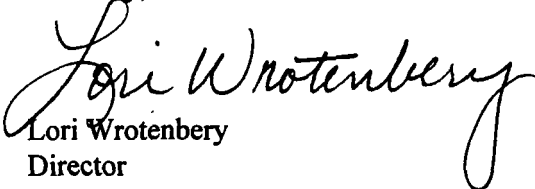
Pursuant to the well location set-back requirements for the South Dagger Draw-Upper Pennsylvanian Associated Pool the location of the North Indian Basin Unit Well No. 26 is considered to be unorthodox for the resulting 320.28-acre lay-down spacing and proration unit.

By the authority granted me under the provisions of RULE 2(C) of said special pool rules and Division General Rule 104.F(2), the unorthodox location of said North Indian Basin Unit Well No. 26 is hereby approved.

The operator shall comply with all applicable requirements and conditions set forth in Division Order Nos. R-5353, as amended by supplemental Orders "A," "L," "L-1," "L-2," "L-3," R-4691-E, and R-4691-F.

Further, all previous provisions of said Division Administrative Order DD-156(H) shall remain in full force and effect until further notice.

Sincerely,


Lori Wrotenberg
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad
File: DD-156(H)



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

**OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131**

February 13, 1998

**Marathon Oil Company
P.O. Box 552
Midland, Texas 79702-0552
Attention: Thomas M. Price**

Administrative Order NSL-3946

Dear Mr. Price:

Reference is made to the following: (i) Marathon Oil Company's ("Marathon") original application to the Artesia District Office of the New Mexico Oil Conservation Division, dated June 19, 1997; (ii) the provisions of Division Administrative Order DD-156(H); (iii) the records of the Division in Santa Fe; and, (iv) the *"General Rules and Regulations for the Associated Oil and Gas Pools of Northwest New Mexico and Southeast New Mexico/Special Rules and Regulations for the South Dagger Draw-Upper Pennsylvanian Associated Pool,"* as promulgated by Division Order No. R-5353, as amended by supplemental Orders "A," "L," "L-1," "L-2," "L-3," R-4691-E, and R-4691-F, which includes provisions for 320-acre spacing and proration units for both oil and gas and well a location requirement which provides that wells be no closer than 660 feet to the outer boundary of a 320-acre spacing unit and not closer than 330 feet to any quarter-quarter section line or subdivision inner boundary thereon: all concerning Marathon's request of an unorthodox well location in an existing standard 320-acre "lay-down" spacing and proration unit for the South Dagger Draw-Upper Pennsylvanian Associated Pool comprising the S/2 of Section 2, Township 21 South, Range 23 East, NMPM, Eddy County, New Mexico. Said 320-acre unit was established by Division Administrative Order DD-156(H), dated October 31, 1996, when the orientation of two existing 320-acre, more or less, "stand-up" spacing and proration units in said Section 2 were changed to form two "lay-down" 320-acre, more or less, units in order to accommodate the drilling of a directional horizontal drainhole in Marathon's North Indian Basin Unit Well No. 14 (API No. 30-015-28143), located 660 feet from the North line and 2310 feet from the East line (Lot 2/Unit B) of said Section 2.

At the inception of said Administrative Order DD-156(H) South Dagger Draw-Upper Pennsylvanian Associated Pool oil and gas production from the subject 320-acre lay-down spacing and proration unit was simultaneously dedicated to the following four wells all located in the S/2 of said Section 2:

- (i) North Indian Basin Unit Well No. 11 (API No. 30-015-28232), located 660 feet from the South line and 1980 feet from the East line (Unit O);
- (ii) North Indian Basin Unit Well No. 12 (API No. 30-015-28258), located 660 feet from the South and West lines (Unit M);
- (iii) North Indian Basin Unit Well No. 18 (API No. 30-015-28435), located 2310 feet from the South line and 1650 feet from the East line (Unit J); and,

(iv) North Indian Basin Unit Well No. 20 (API No. 30-015-28384), located 1650 feet from the South line and 2310 feet from the West line (Unit K).

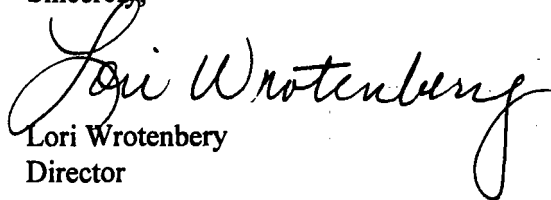
Pursuant to the well location set-back requirements for the South Dagger Draw-Upper Pennsylvanian Associated Pool the location of the North Indian Basin Unit Well No. 18 is considered to be unorthodox for the resulting 320-acre lay-down spacing and proration unit.

By the authority granted me under the provisions of RULE 2(C) of said special pool rules and Division General Rule 104.F(2), the unorthodox location of said North Indian Basin Unit Well No. 18 is hereby approved.

The operator shall comply with all applicable requirements and conditions set forth in Division Order Nos. R-5353, as amended by supplemental Orders "A," "L," "L-1," "L-2," "L-3," R-4691-E, and R-4691-F.

Further, all previous provisions of said Division Administrative Order DD-156(H) shall remain in full force and effect until further notice.

Sincerely,


Lori Wrotenberg
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad
File: DD-156(H)