

Mid-Continent Region
Production United States



P.O. Box 552
Midland, TX 79702-0552
Telephone 915/682-1626

May 18, 1999

Energy Minerals and Natural Resources Department
Oil Conservation Division
811 South First Street
Artesia, New Mexico
Attention Mr. Tim Gum



Re: Federal IB "A" Gas Com #2
SHL: 1980' FSL & 660' FEL
BHL: 700' FNL & 700' FEL
Section 15, T-21-S, R-23-E
Eddy County, New Mexico

Dear Mr. Gum,

Marathon proposes to re-enter and horizontally drill the above referenced well to the South Dagger Draw, Upper Pennsylvanian Associated pool as per the attached horizontal proposal and well procedure. The South Dagger Draw, upper Pennsylvanian Gas Pool requires 320 acre proration units and wells to be located no closer than 660 feet from the outer boundary of the proration unit

This well was drilled and completed in the Upper Penn formation in 1998 and is currently producing 2.6 MMCFPD, 20 BCPD, and 500 BWPD. The horizontal target will test the up dip portion of the Canyon oil bearing porosity zone, expected to be 50' - 100' thick, that intersects the NE/4 of the section. This well should compete with offset producers and increase oil production and increase gas production from this reservoir to utilize the Indian Gas Pool allowable of 9.8 MMCFPD for this 320 acre unit.

This well shall have a 320 acre, E/2 project area and all of the vertical and horizontal portions fall within the producing area of the 660' setback from section lines.

Marathon requests approval to re-enter and horizontally drill this well to a standard BHL in the South Dagger Draw, Upper Pennsylvanian Associated Pool under the provisions of NMOCD rule 111.C.(1).

Should anything additional be required please contact me at (800) 351-1417.

Very truly yours,

A handwritten signature in cursive script that reads 'Walter Dueease'.

Walter Dueease

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

5. LEASE DESIGNATION AND SERIAL NO NM - 0384628	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME SW 280	
8. FARM OR LEASE NAME, WELL NO Federal IBA Gas Com	2
9. API WELL NO 30-015-30041	
10. FIELD AND POOL, OR WILDCAT South Dagger Draw, U. PENN ASSOC.	
11. SEC., T., R., M., OR BLK AND SURVEY OR AREA Sec 15. T-21-S R-23-E	
12. COUNTY OR PARISH Eddy	13. STATE NM

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL **DEEPEN**

b. TYPE OF WELL
OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
Marathon Oil Company

3. ADDRESS AND TELEPHONE NO.
P.O. Box 552 Midland, TX 79702 915/687-8356

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface
1980' FSL & 660' FEL
At proposed prod. zone
700' FNL & 700' FEL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
15 miles NW of Carlsbad

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT (Also to nearest drlg. unit line, if any) 660'	16. NO. OF ACRES IN LEASE 640	17. NO. OF ACRES ASSIGNED TO THIS WELL 320 - E/2
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 3439'	19. PROPOSED DEPTH 7800'	20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3796' GL

22. APPROX. DATE WORK WILL START*

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12.25"	9.625"	36#	1171'	850 - CIRC TO SURF
8.75"	7"	26# & 23#	8500'	1040' - TOC @ 500'

Propose to re-enter well, kick-off in Canyon and horizontally drill to a BHL @ 700' FNL & 700' FEL. No new surface shall be disturbed by this action.

See Attached Procedure for Detail.

* Casing cemented in place.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Walter Duncan TITLE Drilling Supt. DATE 5/18/99

(This space for Federal or State office use)

PERMIT NO _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon
CONDITIONS OF APPROVAL, IF ANY

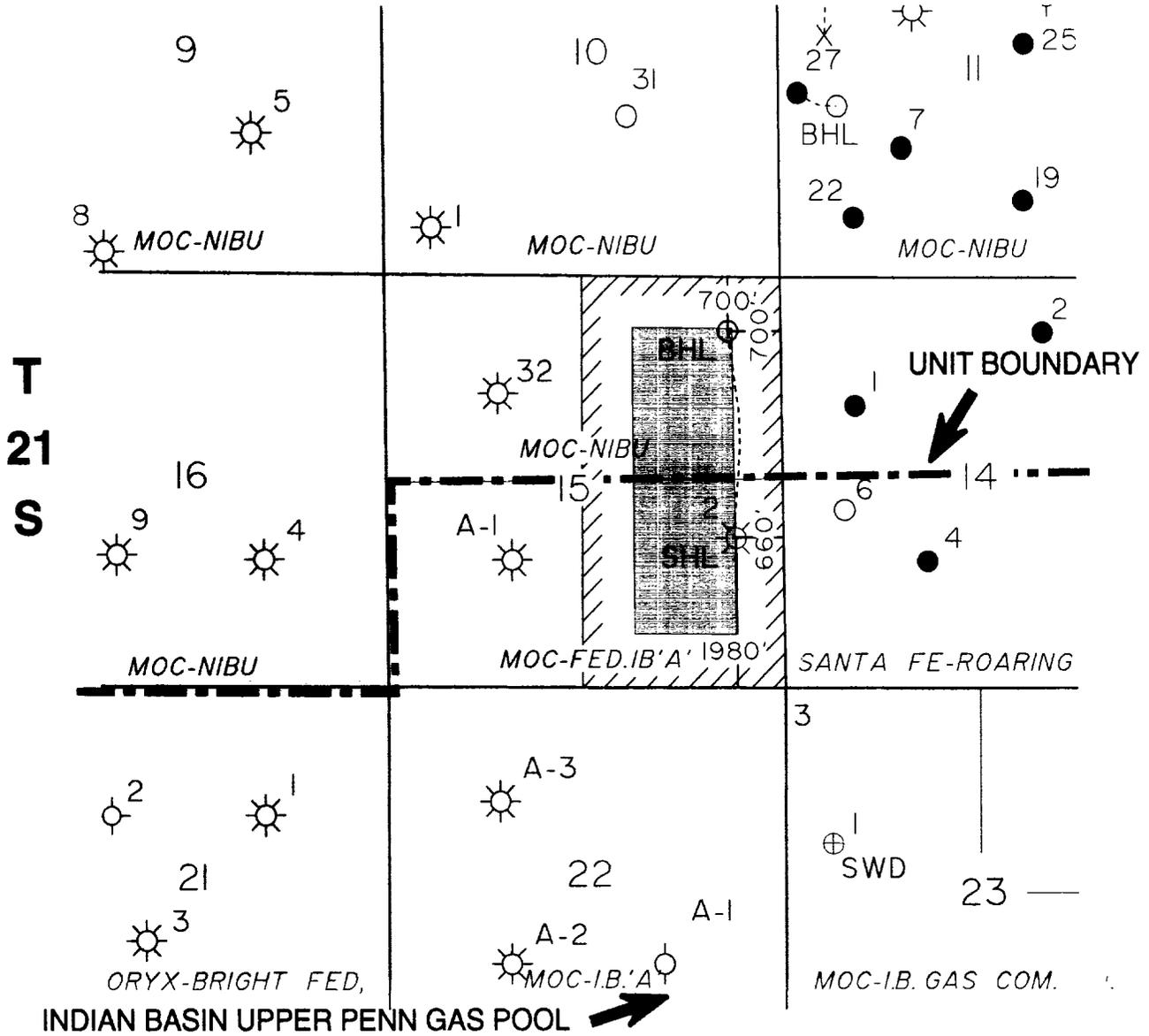
APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

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.

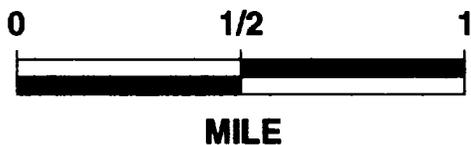
R 23 E

SDD UPPER PENN ASSOC.



 PRODUCING AREA
(660' WITHIN BORDER)

 320 ACRE
PRORATION UNIT &
PROJECT AREA



**MARATHON OIL COMPANY
MID-CONTINENT REGION**

**FEDERAL IB 'A'
GAS COM #2**

SHL - 1980'FSL & 660' FEL

BHL - 700'FNL & 700' FEL

SEC. 15, T-21-S, R-23-E

EDDY COUNTY, NEW MEXICO

Safety:

- Hold daily safety meetings explaining the proposed procedure.
- H2S concentration - 5,000 PPM
- Keep TIW on rig floor for all pipe connections at all times.
- Use 10# Brine to kill well if necessary.

1. Lockout/tagout energy source. RDMO pumping unit. Prepare location as necessary for pulling unit. Test safety anchors to 22,500#, if necessary.
2. MIRU pulling unit. Kill well as necessary. Install rod stripper. Unseat pump and TOOH w/ rods, laying down. Install 7 1/16" 3M dual ram hydraulic BOP (blind rams on bottom and 2 7/8" pipe rams on top) with Torus annular. TOOH w/ tubing.
3. RU wireline company. Install and test lubricator. Make gage ring run to 7,750'. Set top of 7" CIBP at 7,720' MD (5' above casing collar at 7,725'). RD wireline company.
4. TIH w/ 2 7/8" O.D. tubing. Test plug to 1000 psi. Hot water tubing to clean up paraffin. Circulate hole clean w/ fresh water. TOOH w/ 2 7/8" O.D. tubing, laying down. ND BOPE. NU 7 1/16" 3M X 2 7/8" 8rd EUE adapter flange. Install 2 7/8" master valve. RDMO pulling unit.
5. Clean location. Build and line 40' X 40' X 6' dump pit. MIRU horizontal pulling unit package. NU 7 1/16" 3M dual ram hydraulic BOP (with blind rams on bottom and 2 7/8" pipe rams on top) and 7 1/16" 3M annular. Test BOPE to 250/1500 psi. with test plug.
6. TIH w/ 6 1/8" window mill, smooth OD watermelon mill and casing scraper while picking up 2 7/8" O.D., 10.4#, S-135, AOH drillpipe to 7,720' MD. Set 20K on CIBP at 7,720' MD. Adjust tally and TOOH.
7. PU 7" Weatherford 3 Degree "WhipBack" whipstock assembly, starting mill, and orientation sub. TIH w/ 2 7/8" O.D., 10.4#, S-135 AOH drillpipe to 10' above CIBP. RU Wireline unit. RU and run SRG to orient whipstock at 101 degrees azimuth. Land whipstock on CIBP and re-check azimuth. Set whipstock and re-check azimuth. Release starting mill and start casing exit w/ starting mill. TOOH. PU Window mill, and Watermelon mill. TIH. Finish casing exit. TOOH. TIH w/ 6 1/8" bit, watermelon mill, watermelon mill on 2 7/8" DP. Open up casing exit and drill pilot hole to at least 7,720' MD. Window to be cut with fresh water. Circulate hole clean TOOH
8. PU 4 3/4" Reed EHP 53 bit, 3 1/8" MIX motor, 2 7/8" O.D. Monel DC, MWD flow sub, and orienting sub, followed by 2,600' of 2 7/8" O.D., 10.4#, S-135, AOH drillpipe, and 20 - 4 1/8" X 2" DC's on 2 7/8" O.D., AOH drillpipe. **Note - 4 1/8" DC's must drift 2" I.D.**
9. Orient motor to 101 degrees azimuth using SRG gyro. 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 xanthan sweeps as necessary to clean the hole. TOOH.
10. PU 4 3/4" Reed EHP 53 bit, 3 1/8" MIXL motor, 2 7/8" O.D. Monel DC, and MWD flow sub on 2,600' 2 7/8" O.D., 10.4#, S-135, AOH drillpipe, and 20 - 4 1/8" X 2" DC's on 2 7/8" O.D., AOH drillpipe. Drill 1st lateral section as per the attached directional program using fresh water and xanthan sweeps as necessary. Pull back to 8,078' and time drill with left side tool face to sidetrack out of the 1st lateral. Drill 2nd lateral as per the attached directional program. After second lateral is drilled, circulate hole clean and displace hole with 2% KCL water.
11. TIH w/ 7" retrievable bridgeplug on the 2 7/8" tubing. Set bridgeplug at 7650'. ND BOPE, NU wellhead. RDMO Horizontal PU.
12. Clean up location. MIRU pulling unit. PU and RIH to retrieve RBP. TOH with RBP. PU and RIH with 2 7/8" tubing and packer, setting at approximately 7650'. RU swab lubricator. Swab well and evaluate fluid entry. Stimulation will be based upon fluid entry. If the well does not flow, the whipstock will be retrieved and the CIBP @ 7,720' will be knocked to bottom to provide a sump for a rod pump installation.