

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

API NO. (assigned by OCD on New Wells)
30-015-22694

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.
352350

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL ☐ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☒

b. Type of Well:

OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. Name of Operator
Marathon Oil Company

7. Lease Name or Unit Agreement Name
INDIAN HILLS ST COMM

3. Address of Operator
P.O. Box 552 Midland, Tx. 79702

8. Well No.
2

4. Well Location
Unit Letter P : 660 Feet From The SOUTH Line and 660 Feet From The EAST Line
Section 36 Township 20-S Range 24-E NMPM EDDY County

10. Proposed Depth

9190'

11. Formation

STRAWN

12. Rotary or C.T.

13. Elevations (Show whether DP, RT, GR, etc.)
GL 3656'; KB 3643'

14. Kind & Status Plug. Bond
BLANKET

15. Drilling Contractor

16. Approx. Date Work will start
12/23/92

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
	11-3/4"	42#	410'	500	SURFACE
	8-5/8"	32# & 24#	3000'	900	SURFACE
	4-1/2"	11.6#	9750'	650	4360'

MARATHON OIL COMPANY IS PROPOSING TO ABANDON THE MORROW ZONE & RECOMPLETE THE STRAWN USING THE ATTACHED PROCEDURE.

APPROVAL VALID FOR 180 DAYS
PERMIT EXPIRES 6-30-93
UNLESS DRILLING UNDERWAY

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Thomas M. Price TITLE ADVANCED ENGINEERING TECH DATE 12/22/92

TYPE OR PRINT NAME THOMAS M. PRICE

TELEPHONE NO. 915/682-1621

(This space for State Use)

APPROVED BY Mark Reddy TITLE Geologist DATE 12-31-92

CONDITIONS OF APPROVAL, IF ANY:

WORKOVER PROCEDURE

INDIAN HILLS STATE COMM NO. 2

660' FSL & 660' FEL
SECTION 36, T-20-S, R-24-E
EDDY COUNTY, NEW MEXICO
AFE NO. 44955

Date: October 13, 1992

Purpose: Abandon the Morrow formation and recomplete to the Strawn.

Status: Shut-in

TD: 9,747' PBTD: 9,659' KB: 3,643' GL: 3,656'

Surface Casing: 11-3/4", 42#, H-40, ST&C set at 410'. Cemented with 300 sxs of 50/50 PozMix, 6% gel. Tailed with 200 sxs of Class "C" with 2% CaCl. Circulated to surface.

Intermediate Casing: 8-5/8", 24#/32#, K-55, ST&C set at 3,000'. Cement with 600 sxs 50/50 PozMix "C" with 6% gel and tailed with 300 sxs of Class "C" neat with 2% CaCl. Circulated to surface.

Production Casing: 4-1/2", 11.6#, N-80, LT&C set at 9,750. Cemented with 650 sxs of 50/50 PozMix with additives. Ran temperature survey. TOC at 4,360'.

Tubing & Packer: 2-3/8", 4.7#, N-80, EUE (296 jts.)
1.10'x 2-3/8", EUE, Seating Nipple.
Baker Lok-Set 4-1/2" (3.66"), 11.60# set with 12,000# compression.

Present Completions: 9,581'-9,587' (1 JSPF), 9,602'-9,605',
(Morrow) 9,608'-9,610' (1 JSPF). Reperf: 9,602'-
9,610' (1 JSPF). 9,387'-9,390', 9,501',
9,518', 9,525'-9,528' (1 JSPF).

Pressure Information: Shut-in Tubing Pressure - 1,540 psig.
(Morrow) Shut-in Casing Pressure - 1,540 psig

1. Test safety anchors to 22,500 lbs. Move in and rig up Pulling Unit.
2. Nipple up kill truck to wellhead and kill well down 2-3/8" tubing with 2% KCl. Nipple up kill truck and load tubing/casing annulus with 2% KCl.
3. Nipple down wellhead. Nipple up 6" 900 series hydraulic BOPs with 2-3/8" pipe rams and a double valved riser spool. (Note: Keep kill truck tied to riser spool valve in the event the well tries to flow.)
4. Release 4-1/2" Baker Lok-set Packer at 9,293' and pull out of the hole with 2-3/8", 4.7#, N-80 tubing (296 jts.).
5. Rig up wireline company. Rig up lubricator and test to 2,000 psi. Run in the hole with a 4-1/2" CIBP to 9,225' and set the CIBP. Run in the hole and dump 35' of class "C" cement on top of the CIBP. Pull out of the hole and rig down wireline company.
6. Load hole and close blind rams. Pressure test CIBP to 500 psi and hold for 30 minutes. Record pressure test using a chart recorder as per state requirements.

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7. Run in the hole with a 4-1/2" Baker Lok-set Packer, 1.10' Seating Nipple and 2-3/8" 4.7#, N-80, EUE tubing to 8,600'. Circulate the hole with clean 2% KCl water with clay stablizer (126 BBLs).
8. Pull up to ±8,400' and set the Baker Lok-set Packer with 12,000# of compression.
9. Nipple down the BOPs and Nipple up the wellhead. Drop standing valve and test 2-3/8" tubing to 5,500 psi. Retrieve the standing valve. Pressure test wellhead.
10. Rig up swabbing assembly and swab fluid level down to the Seating Nipple.
11. Run flow lines, tie in test separator and rig up flair. Close adjustable choke.
12. Rig up wireline company. Rig up lubricator and test to 3,000 psi. Run in the hole and perforate the Strawn under balanced from 8,503' to 8,528' with 6 JSPF (132 holes) using a decentralizied thru-tubing gun. Pull out of the hole and rig down wireline company.
13. Open adjustable choke and flow test well through testing equipment. Evaluate well for acid stimulation. If stimulation is required go to step 14.
14. Rig up service company. Nipple up tree saver. Treat the Strawn from 8,503' to 8,529' with 3,000 gals of MOD-101 Acid with 3,000 gals CO₂ (50 Quality Foamed Acid). Maximum treating pressure is 5,500 psi.
16. Flow back well and test. Allow well to stabilize for 5 to 7 days. Shut-in well and run a build-up test. Conduct a Four Point test as per state requirements.
17. Install meter run, tie into sales line and place well on production.