Form 3160-5
(August 1999)

NMOCD

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMLC064391B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM71145

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

8. Well Name and No.
INDIAN HILLS GASCA 3

2. Name of Operator
MARATHON OIL COMPANY
Contact: CHARLES E KENDRIX
E-Mail: CEKENDRIX@MARATHONOIL.COM

9. API Well No.
30-015-10553-00-S1

3a. Address
P O BOX 3487
HOUSTON, TX 77253

3b. Phone No. (include area code)
Ph: 713-296-2096
Fx: 713-499-6750

10. Field and Pool, or Exploratory
UPPER PENN

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 29 T21S R24E SENW 1980FNL 1650FWL

RECEIVED
MAR 18 2005
OCD-ARTESIA

11. County or Parish, and State
EDDY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Workover Operatic
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Marathon Oil Company is proposing to add perforations to the existing Indian Basin Upper Penn Associated pool. Please see attachment for details of work to be performed.

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

Electronic Submission #54895 verified by the BLM Well Information System
For MARATHON OIL COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by ARMANDO LOPEZ on 03/15/2005 (05AL0126SE)

Name *(Printed/Typed)* CHARLES E KENDRIX — Title ENGINEERING TECHNICIAN

Signature (Electronic Submission) — Date 03/15/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ALEXIS C SWOBODA — Title PETROLEUM ENGINEER — Date 03/16/2(

Conditions of approval, if any, are attached. Approval of this notice 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.

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Recompletion Procedure to Add Perforations

INDIAN HILLS UNIT GAS COM # 3
Upper Penn

Surface Location: 1,980' FNL, 1,650' FWL Sec. 29, T-21-S, R-24-E
Indian Basin Field, Eddy Co, NM

Date: March 7th, 2005

Purpose: Add perforations to existing Upper Penn perforations

Current Status: Well is producing, but production is falling off rapidly due to declining reservoir pressure and the fact that there is no ESP in the well.

WBS#: RW.05.11733.CAP

AFE Cost: $217,500

WI: 93.32385% **NRI:** 78.98607%

Elevation/Depths: GL: 3,686' KB: 3,704' TD: 9,535' PBTD: 7,699'

Surface Casing: 13-3/8" 54# K-55 set at 240'. Cemented w/ 150 sx. Did not circulate cement. Cemented down the backside with 150 sx.

Intermediate Casing: 9-5/8" 36# L-80 set at 2,075'. Cemented w/ 1,400 sx. Cemented down the backside to surface.

Production Casing: 7" 23# set at 7,843'. Cemented w/ 380 sx. Cement top at 6,115'

Production Liner: 5 1/2" 17# L-80 set from surface to 7,785', following identified casing leaks from 2,592' to 4,770'. Cemented w/ 100 sx.

Production Tubing: 229 jts. of 2-7/8" 6.5# **J-55**

Perforations: Existing Upper Penn Perforations:
7,260' – 7,300'

Pressure Information: Upper Penn – ~250 psi

Safety:
- Hold daily safety meeting explaining the proposed procedure.
- H_2S concentration - 6,500 ppm
- Keep TIW valve on rig floor at all times.
- Keep kill-string in well at night if tbg is pulled.
- Follow MOC SOP's throughout job.

Note: Use proper PPE when working in and around HCL Acid, this would include but is not limited to splash guards, aprons, and HCl resistant gloves. Record types & volumes of fluids pumped into well for control throughout the job.

1. Rig Supervisor & pulling unit operator inspect the well & location prior to rigging up. Perform all necessary Lock-out/Tag-out to properly secure well. Make sure all associated personnel have proper PPE for the proposed job. Isolate pressure shutdowns. If warranted, test safety anchors to 22,500 lbs.

2. MIRU Pulling Unit. Remove all well-control equipment & store properly.

3. Make sure Geronimo line is staked securely, H_2S monitors are in place, guardrails are in place, & the unit is properly grounded to the wellhead. Check all possible pressure sources prior to opening well. Kill well w/ fresh water.

4. Install 11", 3M hydraulic BOPs w/ 2-7/8" pipe rams & blind rams (equipped w/ valved outlets below blinds) & Torus annular. Test pipe rams & blind rams to 250 & 1000 psig.

5. POOH with tubing. **Note: This well currently has J-55 tubing in it!** Unless the tubing is determined to be in excellent condition, lay down the tubing since different 'Condition 2' L-80 tubing will be re-run into the well with the new Centrilift pump.

6. RIH with a bit and scraper and clean-out the well to PBTD. **Note: This well has a 5-1/2" liner set from surface to 7,785'.** Please ensure that the bit is in gauge, to minimize any obstructions when RIH with the perforating guns.

7. RU Baker Atlas. RU frac valve, equalizing line, and 3K lubricator w/ pack-off. Pressure test the lubricator to 1000 psi. The well may be perforated under pressure with kill fluids used as necessary while picking up new guns. **Note: No hard-copy gamma ray log is available in Houston well files. Two printed 5" logs have been sent to Tim Winters and Rick Gaddis in Indian Basin.** Gamma gun correlate the first run to one of these printed logs. Monitor fluid levels between runs. Perforate the following intervals using 3-3/8" guns loaded with 32 gram Predator XP charges @ 4 JSPF.

INTERVAL	FEET
7315' – 7339'	24'
7356' – 7371'	15'
7378' – 7390'	12'
7400' – 7452'	52'
7458' – 7480'	22'
7484' – 7512'	28'
7522' – 7528'	6'
7554' – 7558'	4'
7564' – 7568'	4'
7585' – 7605'	20'
7610' – 7654'	44'
TOTALS:	**231'**

8. RD Baker Atlas and frac valve.

9. RU wireline and make a gauge ring run to make sure that perforating did not cause any casing damage and that the ESP can be RIH without being damaged (i.e. the re-circ line). Verify with Centrilift the maximum O.D. of this pump, and size the gauge ring accordingly. POOH with wireline.

10. If any obstructions are found during gauge run, due to the 5-1/2" liner and the well's lower I.D., re-run a bit and scraper.

11. PU & RIH w/ PPI packer w/ 2' spacings. Verify that forecasted weather conditions will permit running the submersible pump the next day.

12. RU Halliburton. Pressure test surface lines & tubing to 3000 psi. Drop fluid control valve. Acidize perforations between 7260'– 7654' @ 1-2 BPM with 125 gpf of 15% Carbonate Completion Acid for Sour Service. RD Halliburton. **Note: In addition to the newly perforated intervals noted above, also acidize the previously existing perforations:**

INTERVAL	FEET
7260' – 7300'	40'

Therefore, the total net feet for PPI acid treatment is 271', putting the total acid volume at approximately 34,000 gals.

13. POOH and LD PPI packers.

14. RIH w/ sub pump equipment with re-circ line (per BH Centrilift), required subs and **new (Condition 2) L-80 2-7/8" tubing (if appropriate)** – costs for this tubing have been included in the AFE. NOTE: An RBP should not be run. Land the ESP such that the bottom of the pump assembly is at 7,679', which is about 20' off bottom (above PBTD of 7,699). Note also that this puts the pump in-take at about 7,620', which is across the bottom-most open perforation interval from 7,610' – 7,654'. Spool CT string #1 in the well to 7,380' and CT string #2 to 7,590' – these CT string setting depths are based on spacings that put them at about 65' below the highest perforation and 65' above the lowest perforation.

15. Land tbg in seaboard head. Remove Torus annular & BOPs.

16. Connect well to VSD. Notify pumper that well is ready to put online. Ensure all items on pre-startup checklist are done before startup.

17. RDMO. Record types & volumes of fluids pumped for well control throughout job.

PREPARED BY: Mark Mick DATE: March 7th, 2005

xc: K. Tatarzyn B. Coleman R. Gaddis J. Harrison M. Mick T. Winters
D. Redwine