

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Form C-101
March 4, 2004
Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Marathon Oil Company P.O. Box 3487, Houston Texas 77253-3487		² OGRID Number 14021
		³ API Number 30- 025-29468
⁴ Property Code 6454	⁵ Property Name Mark Owen	⁶ Well No. 9

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
L	35	21-S	37-E		1830'	South	660'	West	Lea

⁸ Proposed 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
⁹ Proposed Pool 1 Penrose Skelly Grayburg (50350)					¹⁰ Proposed Pool 2				

Drilling Pit Location and Other Information

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
Depth to ground water					Distance from nearest fresh water well		Distance from nearest surface water		
¹¹ Work Type Code A		¹² Well Type Code O		¹³ Cable/Rotary		¹⁴ Lease Type Code P		¹⁵ Ground Level Elevation 3383'	
¹⁶ Multiple No		¹⁷ Proposed Depth		¹⁸ Formation		¹⁹ Contractor		²⁰ Spud Date 11/09/1985	

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	9 5/8"	32#	1200	700	0
8 3/4"	7"	23 & 26#	7492	2375	0

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Marathon Oil is proposing to plug back existing completions and re-complete the Mark Owen No.9 to the Penrose Skelly Grayburg. This well is currently producing as a downhole commingle well in the Wantz Abo 62700 & Blinebry 06660. The Abo completion is currently producing 1.3 bbls oil and 12 mcf per day. The Blinebry is producing 4.8 bbls oil and 52 mcf per day. Marathon intends to downhole commingle all three zones after an initial production period in the Grayburg. Please attachment for more details.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐ a general permit ☒, or an (attached) alternative OCD-approved plan ☒.

Signature: **Charles E. Kendrick**

Printed name: **Charles E. Kendrick**

Title: **Engineering Technician**

E-mail Address: **cekendrix@MarathonOil.com**

Date:

07/28/2004

Phone:

713-296-2096

OIL CONSERVATION DIVISION

Approved by:

Title:

PETROLEUM ENGINEER

Approval Date: **AUG 04 2004**

Expiration Date:

Conditions of Approval:

Attached ☐

Permit Expires 1 Year From Approval Date Unless Drilling Underway

Adding

Field: Drinkard

Lease & Well: Mark Owen Well No. 9

Location: Unit L, 1,830' FSL & 660' FWL
Section 35, T-21-S, R-37-E

County & State: Lea County, New Mexico

Status: Active pumping well

TD: 7,500' **PBTD:** 7,330' **KB:** 3,394'

Surface Casing: 9-5/8", 32.3#, H-40 ST&C casing
set @ 1,200'. Cmt'd w/ 700 sks.

Production Casing: 7", 23# & 26# casing
set @ 7,492'. DV tool @ 3,989
1st stage - 800 sks. 2nd stage - 1,255 sks.
Circulated both stages

History:

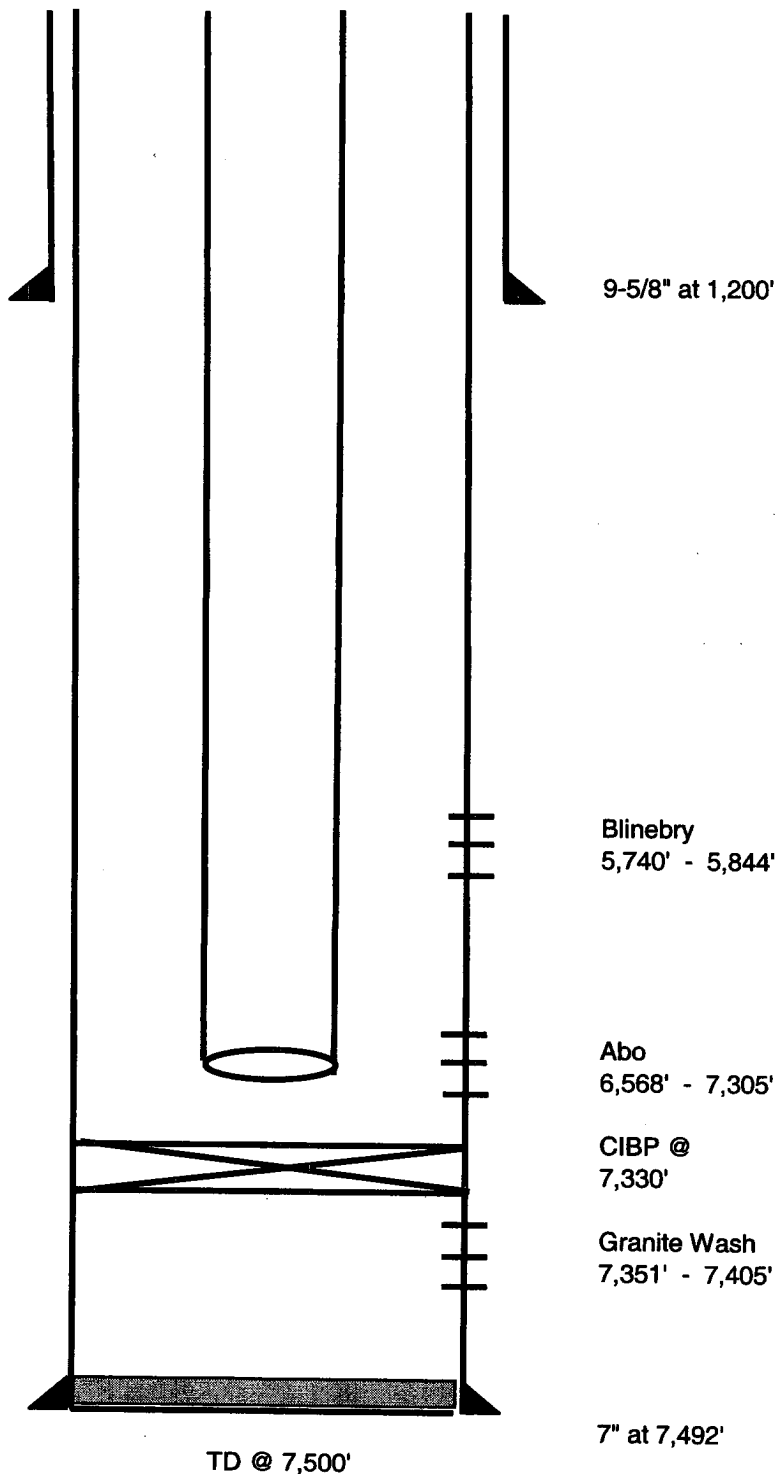
1985 - Drilled and completed in Granite Wash. IP'd 1 BC

1986 - Recompleted to Abo. IP'd 160 BOPD & 190 MCF

1989 - Added Abo pay

1997 - Added Blinebry. Downhole commingled

Blinebry & Abo - Currently pumping 6 BOPD & 70 MCF



**Workover Procedure
Mark Owen Well No. 9
1,860' FSL & 660' FWL, Unit L
Section 35, T-21-S, R-37-E
Lea County, New Mexico**

Date: 07/27/2004

WBS #s:

AFE Cost: \$200,000

WI: 100.0% **NRI:** 87.5%

Elevation: **KB:** 3,394' **TD:** 7,500' **PBTD:** 7,330'

Purpose: **Recomplete to Grayburg**

Surface Casing: 9-5/8", 32.3# casing set at 1,200'.

Production Casing: 7", 23# & 26# casing set at 7,492'. DV tool at 3,989'.

Tubing: 2-3/8" J-55 tbg

Current Completion: **Blinebry** 5,740' – 5,844'

Abo 6,568' – 7,305'

Special Considerations:

Use limited amounts of 2% KCL for kill fluid.
Verify current tbg tally w/Hobbs office prior to RU.

Procedure:

1. Inspect surface location and improve if necessary. Test safety anchors to 22,500#.
2. SD pumping unit the evening prior to RU. Flow well to production facilities overnight
3. MIRU WOR. Kill well w/limited amounts of 2% KCl.
4. Disconnect surface equipment. Hang off pumping unit. LD polish rod. POOH w/rods & pump, hot water if necessary
5. ND wellhead. NU 3M BOPE. Release TAC and POOH w/2-3/8" tbg string, standing back. Visually inspect and replace as necessary.
6. TIH w/6-1/8" bit, casing scraper on 2-7/8' workstring and tag PBTD at 7,330'. POOH w/same. TIH w/7" RBP w/ ball catcher on workstring. Set RBP at 4,100'. Test casing and RBP to 1,000 psi. POOH w/ workstring.

7. MIRU Baker Atlas and lubricator. Test lubricator to 1,000 psi. RIH w/ 311T 23 gram charges (EH: 0.41" Pen: 24"). Perforate Grayburg with 2 JSPF, 90 deg. from 3699-3703, 3716-3720, 3735-3739, 3752-3756, 3760-3764, 3779-3783, 3792-3798, 3810-3814 (68 holes). [Perforations depths are picked from WELEX SDL-DSN CSNG log ran on 11/25/84] POOH. RD Baker Atlas.
8. TIH w/ packer on 2-7/8" workstring. Set pkr at 3650'. MIRU Halliburton. Test lines to 5,000 psi. Test pkr & casing to 1,000 psi.
9. Acidize Grayburg (3,699' – 3,814) w/3,000 gals 15% HCl dropping 130 1.3 SG ball sealers at a rate of 6-8 BPM. Flush to top perf. RD Halliburton
10. RU Swab equipment. Swab back acid load. RD swab equipment. Release packer and TOO H w/packer and workstring.
11. Change out pipe rams to 3-1/2". TIH w/7" packer on 3-1/2" frac string, hydrotesting to 8,000 psi. Set packer at 3,650'. Test packer to 1,000 psi.
12. RU Halliburton. Install treating lines and frac valve. Pressure test line to 9,000 psi. Sand fracture stimulate the Grayburg as per attached recommendation. Anticipated treating pressure = 5,000 psi. Maximum treating pressure = 8,000 psi. RD Halliburton.
13. Install flowback manifold. Flowback well until well dies.
14. RIH w/sinker bar on sandline and tag sand. Release packer and TOO H w/3-1/2" frac string, laying down.
15. TIH w/overshot for RBP, SN on 2-3/8" production string. Swab back frac load. TIH and release RBP. TOH w/same
16. TIH w/mud anchor, SN on 2-3/8" production tbg. Space out tubing w/SN ~3,700
17. ND BOPE and NU wellhead. TIH w/pump & rods. Space out pump. Hang well on. Connect surface equipment. RD WOR and MOL. Start pumping well to production facilities.

Pump design should be able to produce 200 BFPD – 1-3/4" insert at 6 SPM w/120" SL – 205 BFPD @ 80%

XC: R. S. Bose
W. H. Arnett
B. D. Lockhart
Well File

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Form C-102
Revised June 10, 2003

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

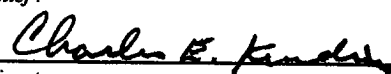
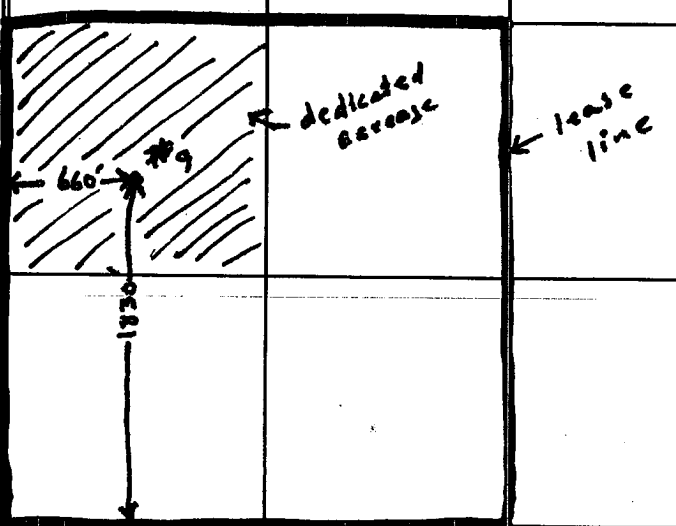
¹ API Number 30-025-29468	² Pool Code 50350	³ Pool Name Penrose Shelly Grayburg
⁴ Property Code 006454	⁵ Property Name Mark Owen	⁶ Well Number 9
⁷ OGRID No. 14021	⁸ Operator Name Marathon Oil Company	⁹ Elevation 3383'

¹⁰ Surface Location									
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¹¹ 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

¹² Dedicated Acres 40	¹³ Joint or Infill N	¹⁴ Consolidation Code	¹⁵ Order No.
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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

¹⁶				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Charles E. Kendrick Printed Name Engineering Technician cekendrix@MarathonOil.com Title and E-mail Address 07/28/2004 Date
				¹⁸ SURVEYOR CERTIFICATION 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. Date of Survey Signature and Seal of Professional Surveyer: Certificate Number