

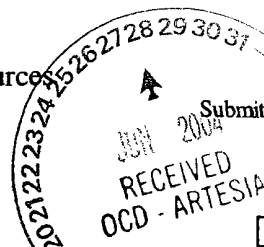
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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**

<sup>1</sup> Operator Name and Address <b>Marathon Oil Company</b> <b>P.O. Box 3487, Houston Texas 77253-3487</b>		<sup>2</sup> OGRID Number <b>14021</b>
<sup>4</sup> Property Code <b>006408</b>		<sup>3</sup> API Number <b>30- 015-27235</b>
<sup>5</sup> Property Name <b>Indian Hills State Com</b>		<sup>6</sup> Well No. <b>4</b>

<sup>7</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
<b>E</b>	<b>36</b>	<b>20-S</b>	<b>24-E</b>		<b>1880</b>	<b>North</b>	<b>660</b>	<b>West</b>	<b>Eddy</b>

<sup>8</sup> 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
<b>E</b>	<b>36</b>	<b>20-S</b>	<b>24-E</b>		<b>1880</b>	<b>North</b>	<b>660</b>	<b>West</b>	<b>Eddy</b>

<sup>9</sup> Proposed Pool 1

**Wolfcamp Wildcat**

<sup>10</sup> Proposed Pool 2

<sup>11</sup> 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
<sup>11</sup> Work Type Code <b>A</b>					<sup>12</sup> Well Type Code <b>G</b>		<sup>13</sup> Cable/Rotary <b>N/A</b>		<sup>14</sup> Lease Type Code <b>S</b>
<sup>15</sup> Ground Level Elevation <b>3634</b>					<sup>16</sup> Multiple <b>No</b>		<sup>17</sup> Proposed Depth		<sup>18</sup> Formation
<sup>19</sup> Contractor					<sup>20</sup> Spud Date <b>12/31/1992</b>				

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
<b>20"</b>	<b>16"</b>	<b>55#</b>	<b>40'</b>	<b>redi-mix</b>	<b>0'</b>
<b>12 1/4"</b>	<b>9 5/8"</b>	<b>32#</b>	<b>1220'</b>	<b>1100</b>	<b>0'</b>
<b>8 3/4"</b>	<b>7"</b>	<b>23 &amp; 26</b>	<b>7999'</b>	<b>1100</b>	<b>1000' from GL</b>

<sup>22</sup> 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 recomplete the Indian Hills State Com to the Wolfcamp interval. Please see attached documents for planned completion procedures and well diagram.  
This well is currently TA'd after and unsuccessful attempt to complete in the Morrow formation.

<sup>23</sup> 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: **06/16/2004**

Phone: **713-296-2096**

OIL CONSERVATION DIVISION

Approved by:

**Jim W. Leem**  
**District Supervisor**

Title:

Approval Date: **JUL 14 2004**

Expiration Date: **JUL 14 2005**

Conditions of Approval:

Attached ☐

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
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State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015-27253</b>		<sup>2</sup> Pool Code		<sup>3</sup> Pool Name <b>Wildcat Wolfcamp</b>	
<sup>4</sup> Property Code <b>006408</b>		<sup>5</sup> Property Name <b>Indian Hills State Com</b>			<sup>6</sup> Well Number <b>4</b>
<sup>7</sup> OGRID No. <b>14021</b>		<sup>8</sup> Operator Name <b>Marathon Oil Company</b>			<sup>9</sup> Elevation <b>3634' GL</b>

<sup>10</sup> Surface Location

UL or lot no. <b>E</b>	Section <b>36</b>	Township <b>20-S</b>	Range <b>24-E</b>	Lot. Idn	Feet from the <b>1880</b>	North/South line <b>North</b>	Feet from the <b>660</b>	East/West line <b>West</b>	County <b>Eddy</b>
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<sup>11</sup> 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
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<sup>12</sup> Dedicated Acres <b>320</b>	<sup>13</sup> Joint or Infill <b>N</b>	<sup>14</sup> Consolidation Code <b>C</b>	<sup>15</sup> 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

				<p><sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><u>Charles E. Kendrick</u> Signature</p> <p><b>Charles E. Kendrick</b> Printed Name</p> <p><b>Engineering Technician</b> Title and E-mail Address</p> <p><u>cekendrix@MarathonOil.com</u> Title and E-mail Address</p> <p><b>06/15/2004</b> Date</p>	
				<p><sup>18</sup> 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.</p> <p>_____ Date of Survey</p> <p>_____ Signature and Seal of Professional Surveyor:</p> <p>_____ Certificate Number</p>	

## **Indian Hills State Com # 4**

### **Wolfcamp Re-Completion Procedure**

Surface Hole Location: 1880' FNL & 660' FWL, Section 36, Township 20 South, Range 24 East  
Indian Basin Field, Eddy Co, NM

**Date:** June 4, 2004

**Purpose:** Complete well to the Wolfcamp Formation

**Current Status:** Previous Upper Penn perforations and Morrow tail have been permanently abandoned. Abandonment of these zones consists of 3 cement plugs set from 8,915' – 9,104' (25 sacks), 7,805' – 8,050' (25 sacks), and 7,178' – 7,602' (50 sacks). Well is shut in, with no tubing in the hole.

**Elevation/Depths:** GL: 3,634' KB: 3,650' TD: 8,000' PBTD: 7,178' (top of 3<sup>rd</sup> cement plug)

**Surface Casing:** 9-5/8" 36# K-55 set @ 1,220'. Cemented w/ 900 sacks of Howco Lite cement, tail w/ 200 sacks neat cement. Circulate 150 sacks.

**Production Casing:** 7", 23 & 26/26# K-55 set @ 8000'. DV tool @ 5,592'. Cemented first stage w/ 300 sacks of Premium Plus cement tailed w/175 sacks Class C. DV tool opened circulated off 90 sacks. Cemented second stage w/ 625 sacks. Circulate 48 sacks.

#### **Abandoned Upper**

**Penn. Perforations:** Upper Penn: 7516'-7540' (24'), 7550'-7566 (16'), 7579'-7587' (8')  
7604'-7612' (8'), 7644'-7658' (14'), 7674'-7680' (6'), 7703'-7708 (5')  
7714'-7730' (16'), 7742'-7746' (4')  
**Total feet of perfs covered 230' / 101'(Net)**

**Pressure Information:** Wolfcamp @ 3000 psi

**Safety:**

- Hold daily tailgate safety meeting reviewing the proposed procedure.
- Keep TIW valve on rig floor at all times.
- Keep kill-string in well at night.
- Follow MOC SOP's throughout job.

**Note:** Use proper PPE when working in and around HCl Acid

## **Wolfcamp Completion Procedure**

**IHSC No. 4**

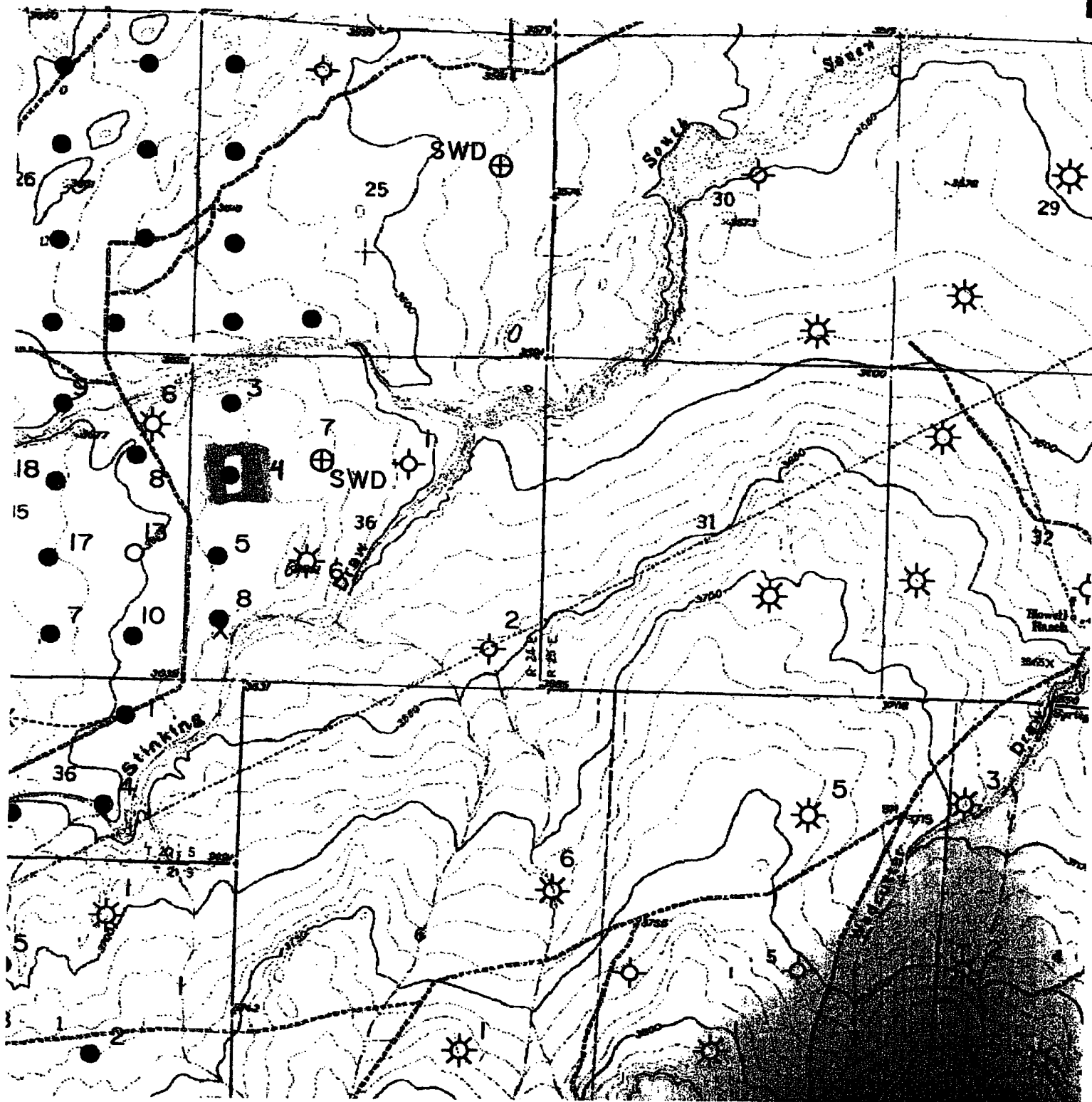
**Page 2 of 2**

### **Procedure:**

1. Rig Supervisor & pulling unit operator inspect the well & location prior to rigging up. Test safety anchors to 22,500 lbs.
2. Perform all necessary Lock-out / Tag-out to properly secure well. Make sure all associated personnel have proper training and PPE for the proposed job.
3. MIRU conventional daylight pulling unit. Perform rig inspection check list. Rig up reverse unit and associated equipment. Make sure Geronimo line is staked securely, H<sub>2</sub>S monitor is in place, guardrails are in place & the unit is properly grounded to the wellhead.
4. ND 7-1/16" 3M flange installed on tubing head. NU 7-1/16" BOPs dressed with 2-3/8" rams. Ensure BOPs have been stump tested to 1000 psi high, 200 psi low prior to NU.
5. Due to recent drilling activity with the deepening to the Morrow, a bit and scraper trip has been deemed unnecessary.
6. RU Baker Atlas. RU frac valve, equalizing line, and 3K lubricator w/ pack-off. Pressure test the lubricator to 1,000 psi against the frac valve.
7. Perforate Wolfcamp formation using 3-3/8" slick guns, 311T 23 gram charges, 4 JSPF as follows:  

**Single Run:** 6,622' – 6,636'

  
RD Baker Atlas
8. PU and RIH with 2-3/8", 4.6# L-80 production tubing with the following downhole equipment:
  - Wireline re-entry guide set at +/- 6,520'
  - 7" PLS packer set at +/- 6,320'.
  - 2-3/8" tbg. and tbg. subs to surface.
9. RU Halliburton. RU tree saver. Hold tailgate safety meeting. Pressure test surface lines and tubing to 5000 psi.
10. Acidize the Wolfcamp with 3,000 gal of 15% HCl Carbonate Stimulation Acid at 6 BPM, dropping 90 1.1 sg bio-balls evenly throughout the job. Monitor backside pressure while pumping. RD Halliburton.
11. ND BOPs. NU Production Wellhead. RDMOPU.



LEASE ROAD

LEASE ROAD  
ENTRANCE

150'

WIND  
SOCK

IH State Comm #4

WIND SOCK

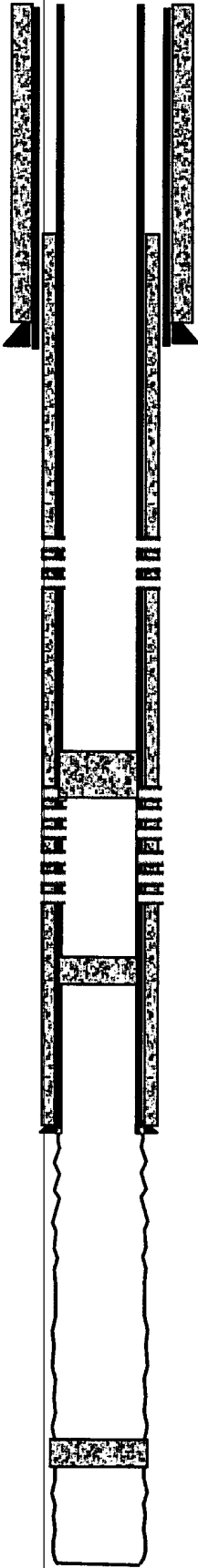
LEASE ROAD  
ENTRANCE

Prevailing  
Wind Direction

NOT to scale



Marathon Oil Company  
Indian Hills State Com # 4  
15-Jun-04



Top of Cement on production casing @ ~1000' from surface

Surface Casing 9 5/8" set @ 1220'

Planned Wolfcamp Perfs  
6622' to 6636'

Cement Plug (50 sks) @ 7178' - 7602'

Abandoned (squeezed ) Upper Penn perforations 7516' to 7746'

Cement plug (25 sks) @ 7850'

Production Casing 7" set @ 7999'

Abandoned open hole section  
Morrow completion failure.

Cement Plug (25 sks) @ 8915'

TD @ 9600'

Well Name & Number:	Indian Hills State Com # 4		Lease	E-10083	
County or Parish:	Eddy	State/Prov.	New Mexico	Country:	USA
Perforations: (MD)			(TVD)	9600'	
Date Completed:	06/15/04				RKB:
Prepared By:	Charles Kendrix		Last Revision Date:	06/15/04	