

8/31/06 DATE IN	SUSPENSE	W. Jones ENGINEER	LOGGED IN 8/31/06	TYPE DHC 3785	APP NO. PTD50624353530
--------------------	----------	----------------------	-------------------	------------------	------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

[A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply**

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

**[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

**[4] CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

<u>Charles E. Kendrick</u> Print or Type Name	<u>Charles E. Kendrick</u> Signature	<u>Reg. Compliance Rep</u> Title	<u>8/24/06</u> Date
			<u>cekendrix@marathanail.com</u> e-mail Address

2006 AUG 31 PM 2 32



**Southern Business Unit**

P. O. Box 3487  
Houston, TX 77253-3487

5555 San Felipe Road  
Houston, TX 77056-2799

Telephone: (713) 296-2096  
FAX: (713) 499-6750

August 25, 2006

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Exception to 19.15.5.303 C (3) (b) DHC Mark Owen No. 15

TO: Mr. Will Jones

Dear Mr. Jones

Marathon Oil Company is seeking to downhole commingle the Penrose Skelly Grayburg and the Paddock pools in the Mark Owen No. 15 (API 30-025-37649). This well was put on production in the Paddock on 04/01/2006. Therefore, Marathon does not have production data for the well for one year. We propose to establish downhole commingle percentages for the well base on well tests taken from May 1<sup>st</sup> to mid July of 2006 for the Paddock, and well tests taken on the Penrose Skelly Grayburg during a test period in August. I am attaching a copy of the well tests and associated commingle percentages with this application.

Neither completion is capable of making top allowable. The interest ownership is identical for both formations.

If you need any further information please contact me at 713-296-2096 or through email @ [cekendrix@marathonoil.com](mailto:cekendrix@marathonoil.com).

Sincerely,

A handwritten signature in cursive script that reads 'Charles E. Kendrix'.

Charles E. Kendrix  
Regulatory Compliance Representative  
Marathon Oil Company

District I  
1625 N. French Drive, Hobbs, NM 88240

District II  
1301 W. Grand Avenue, Artesia, NM 88210

District III  
1000 Rio Brazos Road, Aztec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

APPLICATION TYPE

☒ Single Well  
☐ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Marathon Oil Company  
Operator

P.O. Box 3487  
Address

DHC-3785  
Houston, Texas 77253-3487

Mark Owen

15

K-35-21S-37E

Lea

Lease

Well No.

Unit Letter-Section-Township-Range

County

OGRID No. 14021 Property Code 6454 API No. 30-025-37649 Lease Type: ☐ Federal ☐ State ☒ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Penrose Skelly Grayburg		Paddock
Pool Code	50350		49210
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3686' - 3885'		5114' - 5243'
Method of Production (Flowing or Artificial Lift)	Pumping		Pumping
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	36.2		37.6
Producing, Shut-In or New Zone	New Zone		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: 08/23/2006 Rates: 22 oil/32 gas/118 water	Date: Rates:	Date: 07/09/2006 Rates: 12 oil/35 gas/105 water
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas 67 % 47 %	Oil Gas % %	Oil Gas 33 % 53 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? N/A Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐

Will commingling decrease the value of production? Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands  
or the United States Bureau of Land Management been notified in writing of this application? N/A Yes ☐ No ☐

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE Charles E. Kendrix TITLE Regulatory Compliance Representative DATE 08/25/2006

TYPE OR PRINT NAME Charles E. Kendrix TELEPHONE NO. ( 713 ) 296-2096

E-MAIL ADDRESS cekendrix@marathonoil.com

## DISTRICT I

1625 N. FRENCH DR., HOBBBS, NM 88240

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 86210

## DISTRICT III

1000 Rio Brazos Rd., Artec, NM 87410

## DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

## State of New Mexico

Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 50350	Pool Name PENROSE SKELLY; GRAYBURG
Property Code 6454	Property Name MARK OWEN	Well Number 15
GRID No. 14021	Operator Name MARATHON OIL COMPANY	Elevation 3374'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	35	21-S	37-E		1650	SOUTH	1650	WEST	LEA

## 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

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
-----------------------	-----------------	--------------------	-----------

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

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  <i>Frank M Krugh</i> Signature FRANK M KRUGH Printed Name Reg. Comp. Rep. III Title 1/19/2006 Date
	<b>SURVEYOR CERTIFICATION</b>  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.  JANUARY 12, 2006 Date Surveyed LA Signature & Seal of Professional Surveyor 
	Certificate No. GARY HILDSN 12641

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

Form C-102  
Revised June 10, 2003

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

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>30-025-37649</b>	<sup>2</sup> Pool Code <b>49210</b>	<sup>3</sup> Pool Name <b>Paddock</b>
<sup>4</sup> Property Code <b>006454</b>	<sup>5</sup> Property Name <b>Mark Owen</b>	<sup>6</sup> Well Number <b>15</b>
<sup>7</sup> OGRID No. <b>14021</b>	<sup>8</sup> Operator Name <b>Marathon Oil Company</b>	<sup>9</sup> Elevation <b>3374'</b>

<sup>10</sup> Surface Location

UL or lot no. <b>K</b>	Section <b>35</b>	Township <b>21-S</b>	Range <b>37-E</b>	Lot. Idn	Feet from the <b>1650</b>	North/South line <b>South</b>	Feet from the <b>1650</b>	East/West line <b>West</b>	County <b>Lea</b>
---------------------------	----------------------	-------------------------	----------------------	----------	------------------------------	----------------------------------	------------------------------	-------------------------------	----------------------

<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

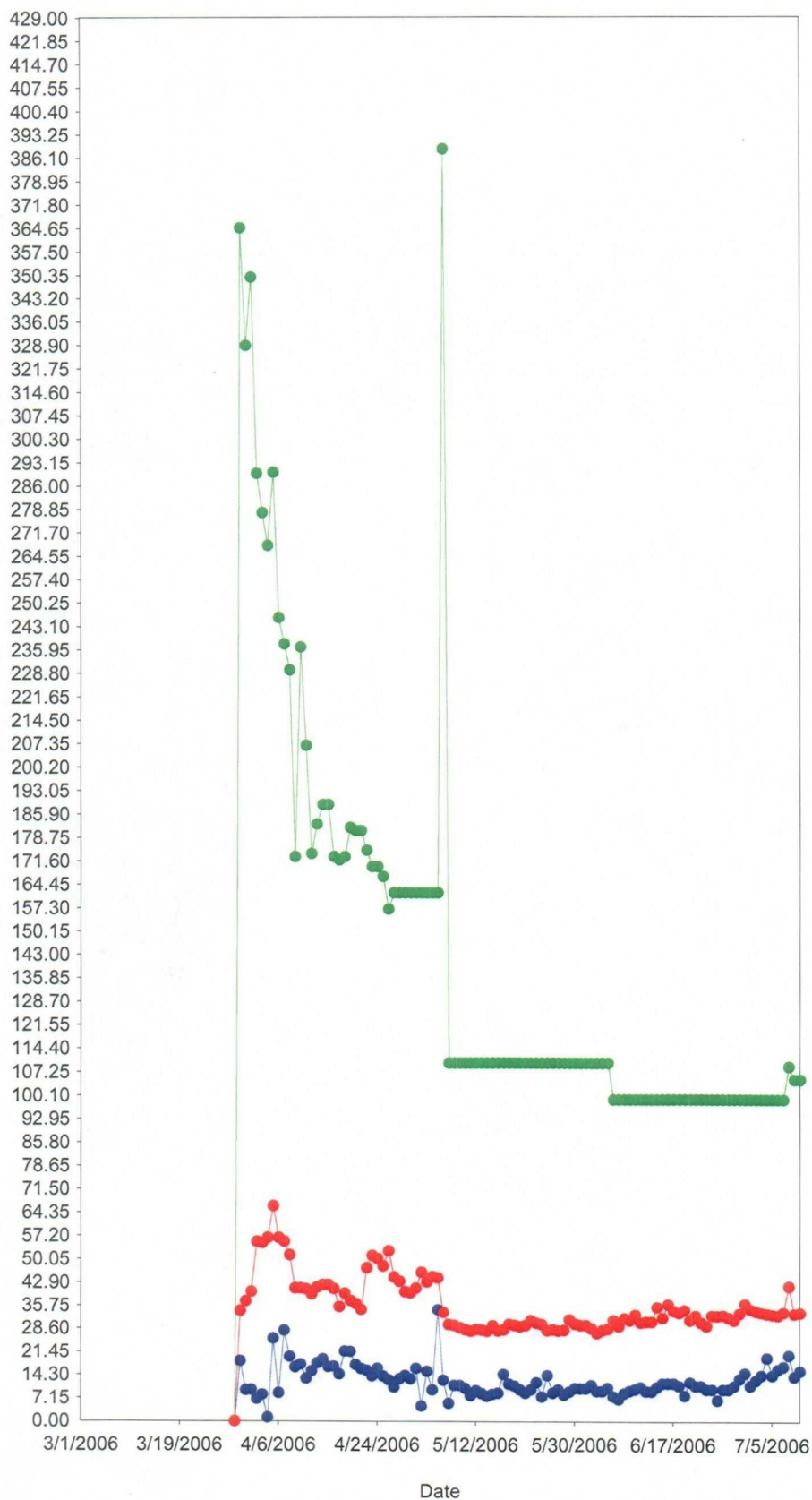
<sup>12</sup> Dedicated Acres <b>40</b>	<sup>13</sup> Joint or Infill <b>N</b>	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
--	---	----------------------------------	-------------------------

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

<sup>16</sup> 	<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.  Signature <b>Charles E. Kendrick</b> Printed Name <b>Regulatory Compliance Rep</b> <b>cekendrix@marathonoil.com</b> Title and E-mail Address <b>05/03/2006</b> Date
	<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. Date of Survey Signature and Seal of Professional Surveyer: Certificate Number

MARK OWEN NO 15  
Mark Owen No 15 Oil, Gas, & Water Production (Paddock)

Actual Gas Production, Actual Oil Production,  
Theoretical Water Production



Theoretical  
Water  
Production

Actual Oil  
Production

Actual Gas  
Production

## Mark Owen No. 15 Well Tests

### Grayburg

Date	Oil	Gas	Water
8/20/2006	17	8	104
8/21/2006	23	30	151
8/22/2006	24	43	113
8/23/2006	25	47	105
<b>Average Producton / Day</b>	22	32	118

### Paddock

Date	Oil	Gas	Water
5/1/2006	10	38	128
5/2/2006	10	40	123
5/3/2006	9	35	110
5/4/2006	9	34	119
5/5/2006	8	34	118
5/6/2006	14	34	147
5/7/2006	13	34	138
5/9/2006	8	34	118
5/10/2006	14	34	147
5/11/2006	13	34	138
5/17/2006	17	36	140
5/23/2006	10	35	124
5/30/2006	12	35	121
6/6/2006	8	41	99
7/8/2006	11	44	105
7/9/2006	9	43	105
<b>Average Producton / Day</b>	11	37	124

## Commingle Percentages Based on Well Tests

	Oil	Gas	Water
<b>Penrose Skelly Grayburg</b>	67%	47%	49%
<b>Paddock</b>	33%	53%	51%