

DATE IN 22-Feb-07	SUSPENSE	ENGINEER W. So 107	LOGGED IN 27-Feb-07	TYPE DHC	APP NO. 06LP0705053523
3865					930042

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>	<u>Charles E. Kendrick</u>	<u>Reg. Compliance Rep</u>	<u>02/08/07</u>
Print or Type Name	Signature	Title	Date
		<u>cekendrix@marathonoil.com</u>	
		e-mail Address	

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
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
FEB 22 2007
APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107A
Revised June 10, 2003
APPLICATION TYPE
Single Well
Establish Pre-Approved Pools
EXISTING WELLBORE
Yes No

Marathon Oil Company P.O. Box 3487 Houston, TX 77253-3487
Operator Address
Mark Owen 17 N-35-215-37E DHC-3865 Lea
Lease Well No. Unit Letter-Section-Township-Range County
OGRID No. 14021 Property Code 6454 API No. 30-025-37653 Lease Type: Federal State X Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Penrose Skully Grayburg		Undesignated SOUTH Eunice San Andres
Pool Code	50350		24150 24170
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3670' - 3830'		3950' - 3992'
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)	36.8		37.2
Producing, Shut-In or New Zone	Producing		Shut In
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: 02/18/07 Rates: oil Gas Water 15.0 64 2	Date: Rates:	Date: 9/26/06 Rates: oil Gas Water 1 235 1
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 82 % Gas 17 %	Oil % Gas %	Oil 18 % Gas 83 %

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 Reg. Compliance Rep DATE 2/20/07
TYPE OR PRINT NAME Charles E. Kendrix TELEPHONE NO. (713) 296-2096
E-MAIL ADDRESS cckendrix@marathonoil.com

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 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

¹ API Number 30-025-37653	² Pool Code 24170	³ Pool Name Eunice San Andres, South
⁴ Property Code 006454	⁵ Property Name Mark Owen	⁶ Well Number 17
⁷ OGRID No. 14021	⁸ Operator Name Marathon Oil Company	⁹ Elevation 3370'

¹⁰ Surface Location

UL or lot no. N	Section 35	Township 21-S	Range 37-E	Lot. Idn	Feet from the 510	North/South line South	Feet from the 1650	East/West line West	County Lea
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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 80	¹³ Joint or Infill N	¹⁴ Consolidation Code	¹⁵ 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

¹⁶				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Charles E. Kendrix</i> Signature Charles E. Kendrix Printed Name Regulatory Compliance Rep cekendrix@marathonoil.com Title and E-mail Address 05/18/2006 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

DISTRICT I

1625 N. FRANCH DR., MOORE, NM 88240

DISTRICT II

1201 W. GRAND AVENUE, ALBUQUERQUE, NM 87102

DISTRICT III

1000 Rio Brazos Rd., Artes, 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

For Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-37653	Pool Code 50350	Pool Name PENROSE SKELLY; GRAYBURG
Property Code 6454	Property Name MARK OWEN	Well Number 17
OCRID No. 14021	Operator Name MARATHON OIL COMPANY	Elevation 3370'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	35	21-S	37-E		510	SOUTH	1650	WEST	LEA

Bottom Hole Location If Different From Surface

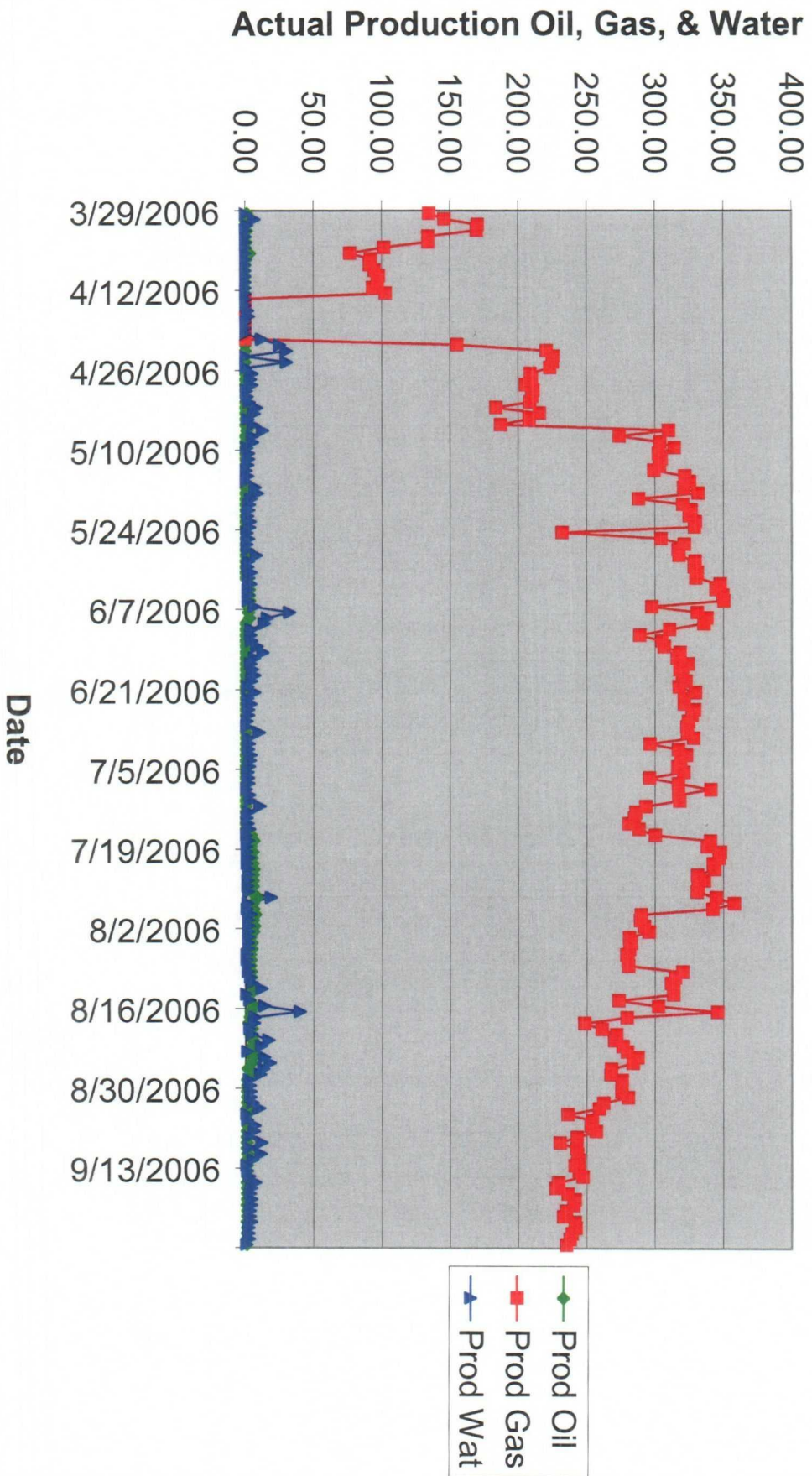
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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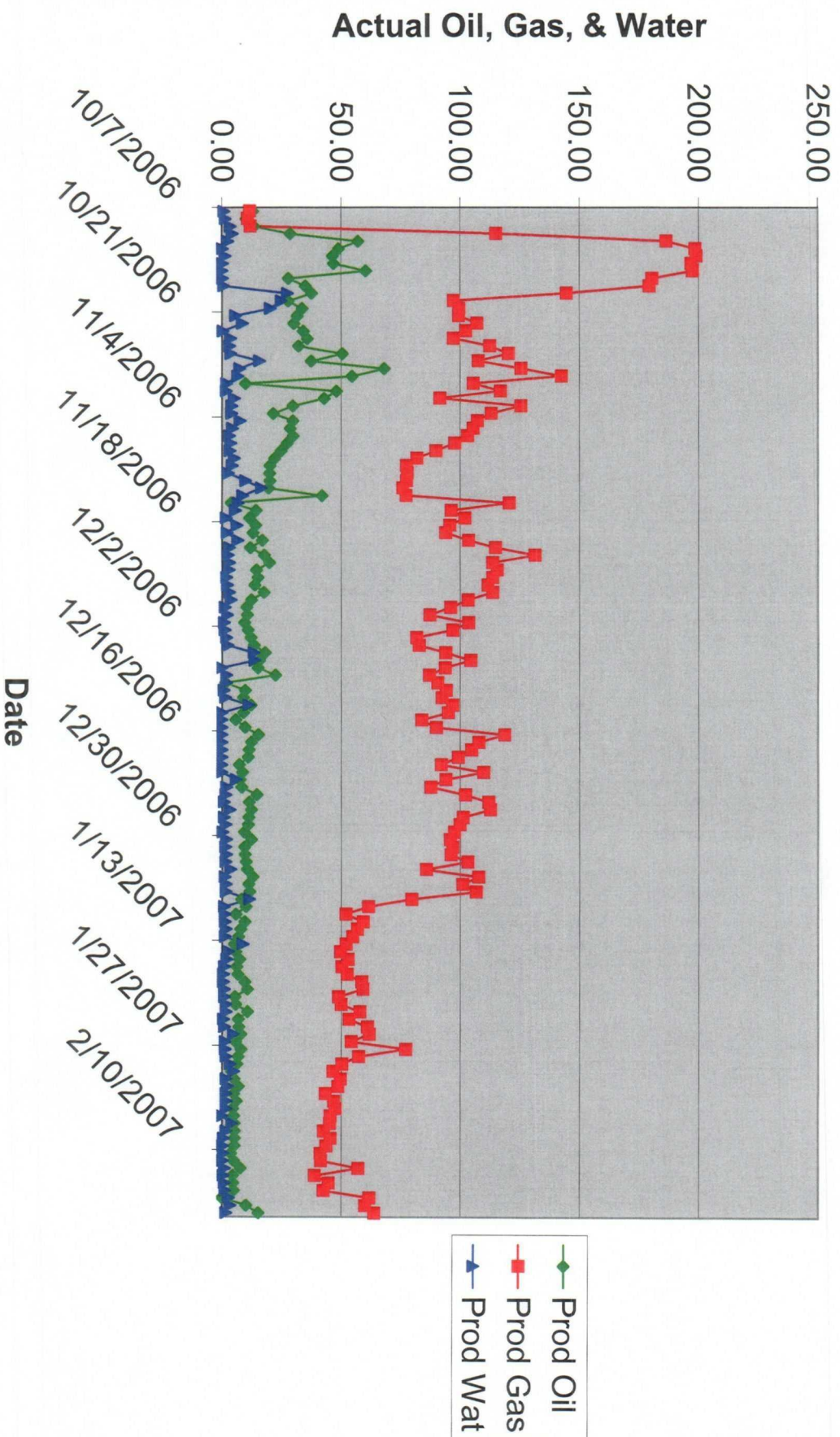
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION 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 1/19/06 Date
	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. JANUARY 11, 2006 Date Surveyed <i>Gary Edson</i> Signature & Seal of Professional Surveyor GARY EDSON Professional Surveyor 06.11.0062 Certificate No. GARY EDSON 12841

Mark Owen No 17 Eunice San Andres Production (03/29/06 to 09/26/06)



Mark Owen No 17 Grayburg Production (10/07/06 to 02/18/07)



Mark Owen No. 17
Downhole Commingle
San Andres and Grayburg Formations

The production graphs for this well are less than one year for both formations due to the age of the well. The request to combine the completions in a downhole commingle wellbore is attempt to make the well more economically viable to produce.

The San Andres completion was first brought on production on 03/20/2006 and was taken out of production on 09/25/2006 in order to re-complete the well to the Grayburg formation. The Grayburg formation was brought on production on 10/06/2006 and is currently still producing as a single well completion.

The allocation percentages for the downhole commingled well bore was derived by using average daily production for the last thirty days of production for each pool as follows:

	Oil	Gas	Water
San Andres	1.34	246.87	4.37
Grayburg	<u>6.13</u>	<u>50.92</u>	<u>1.81</u>
Totals	7.47	297.79	6.18

Percentages	Oil	Gas	Water
San Andres	$1.34/7.47 = .1794$ (18%)	$246.87/297.79 = .8290$ (83%)	$4.37/6.18 = .7071$ (71%)
Grayburg	$6.13/7.47 = .8206$ (82%)	$50.92/297.79 = .1709$ (17%)	$1.81/6.18 = .2928$ (29%)