

2/9/07 DATE IN	SUSPENSE	W. Jones ENGINEER	2/9/07 LOGGED IN	DHC TYPE 3852	APP NO. PD50704049081
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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>Regulatory Compliance Rep 02/06/07</u> Title	<u>02/06/07</u> 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

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

APPLICATION FOR DOWNHOLE COMMINGLING ☒ Yes ☐ No

Marathon Oil Company P.O. Box 3487 Houston, Texas 77253-3478  
Operator Address  
Mark Owen 10 M-35-21S-37E  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. Property Code API No. 30-025-37533 Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Penrose Skelly Grayling		Eunice San Andres South
Pool Code	50350		24170
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3650' - 3812'		3890' - 4303'
Method of Production (Flowing or Artificial Lift)	Artificial		Artificial
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)	38.6		36.2
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: 2/05/07 Rates: oil Gas water 10 93 1	Date: Rates:	Date: 10/17/06 Rates: oil Gas water 0 97 2
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 100 % 46 %	Oil Gas % %	Oil Gas 0 % 54 %

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. Kendrick TITLE Reg. Compliance Rep DATE 02/06/07  
TYPE OR PRINT NAME Charles E. Kendrick TELEPHONE NO. (713) 296-2096  
E-MAIL ADDRESS cekendrix@marathonoil.com

## DISTRICT I

1625 N. FRENCH DR., ROSSE, NM 88240

## DISTRICT II

1201 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 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 24150	Pool Name EUNICE; SAN ANDRES
Property Code 6454	Property Name MARK OWEN	Well Number 10
OGRID No. 14021	Operator Name MARATHON OIL COMPANY	Elevation 3376'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	35	21-S	37-E		510	SOUTH	660	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	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

	<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=521985.0 N X=868295.3 E</p> <p>LAT.=32°25'45.82" N LONG.=103°08'22.94" W</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Frank M Krugh</i> Signature</p> <p>FRANK M KRUGH Printed Name</p> <p>Reg. Comp. Rep. III Title</p> <p>10/31/05 Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>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>OCTOBER 20, 2005</p> <p>Date Surveyed</p> <p><i>Ronald E. Edson</i> Signature of Professional Surveyor</p> <p>Professional Surveyor</p> <p>3389 05-11-1648</p> <p>10/25/04</p> <p>Certificate No. RONALD E. EDSON 3239</p>	

## DISTRICT I

1000 N. FRANKLIN DR., BOHNS, NM 87004

## DISTRICT II

1201 W. GRAND AVENUE, ALBUQUERQUE, NM 87102

## 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 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	Pool Name
		50350	PENROSE SKELLY; GRAYBURG
Property Code	Property Name		Well Number
6454	MARK OWEN		10
OCRID No.	Operator Name		Elevation
14021	MARATHON OIL COMPANY		3376'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	35	21-S	37-E		510	SOUTH	660	WEST	LEA

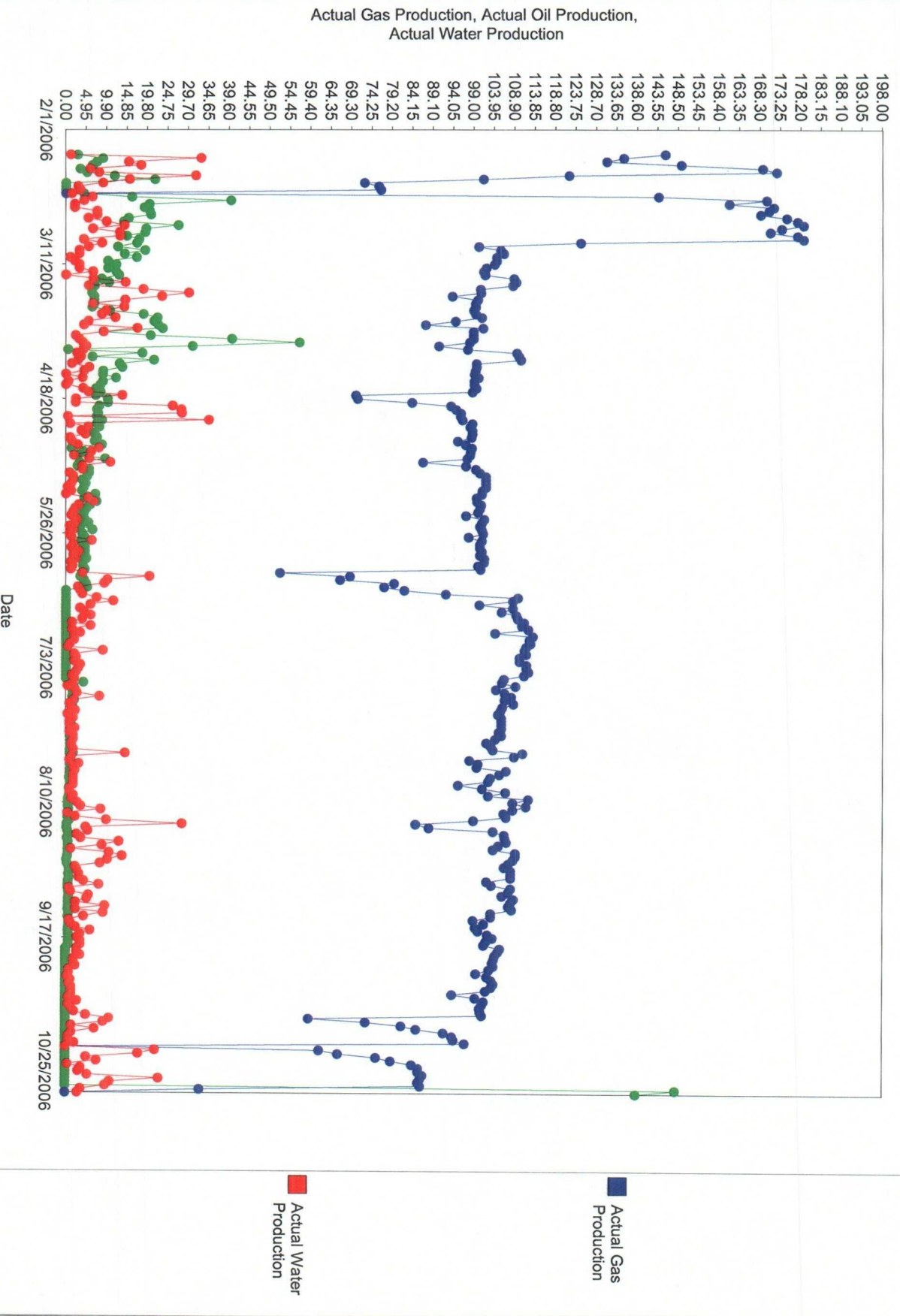
## Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres		Joint or Infill		Consolidation Code		Order No.			

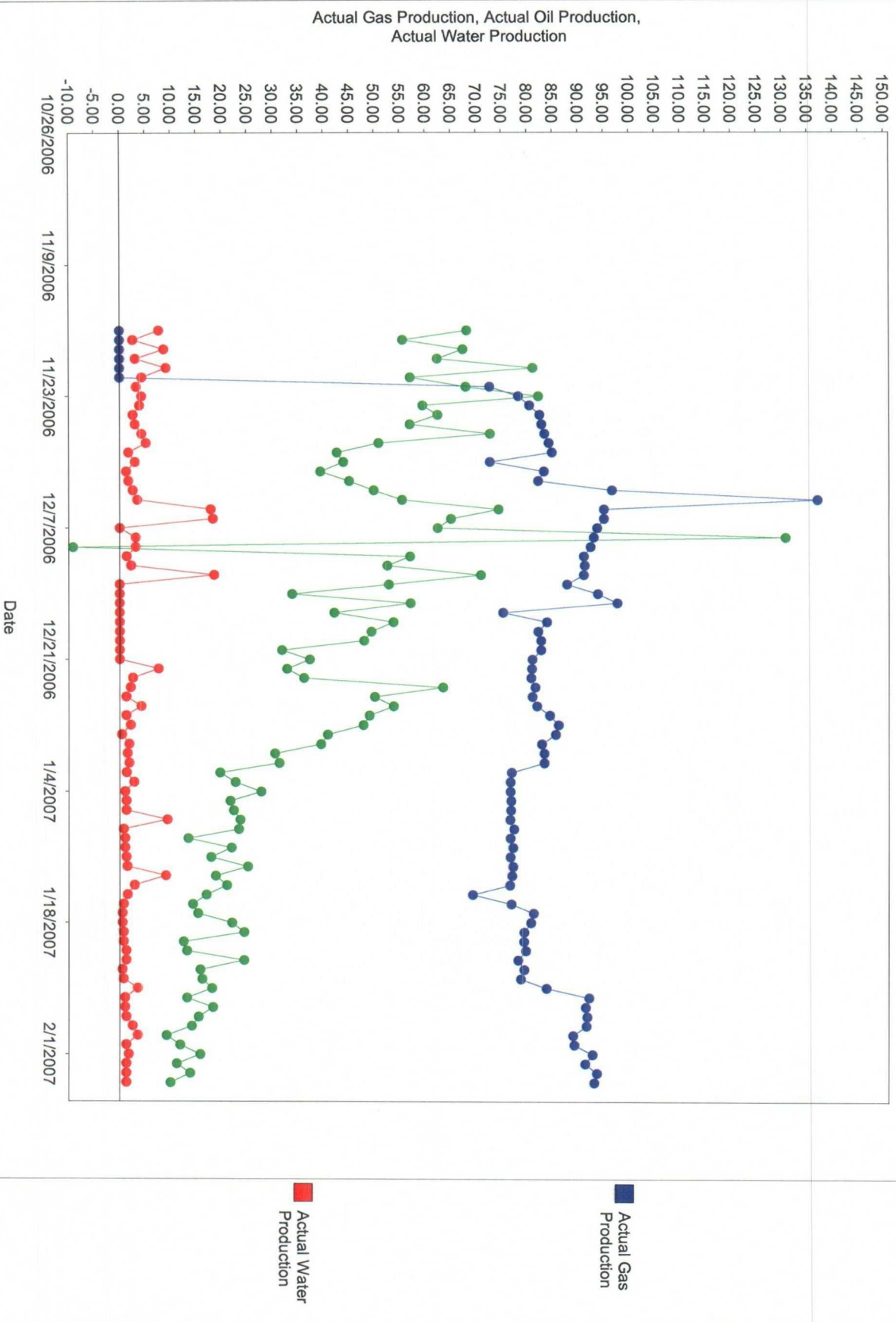
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=521985.0 N X=868295.3 E</p> <p>LAT.=32°25'45.82" N LONG.=103°08'22.94" W</p>		<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Frank M. Krugh</i> Signature</p> <p>FRANK M. KRUGH Printed Name</p> <p>Reg. Comp. Rep. III Title</p> <p>10/31/05 Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>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>OCTOBER 20, 2005</p>		<p>Date Surveyed</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Ronald J. Eidson</i> Professional Surveyor</p> <p>05-11-1646</p> <p>Certification No. RONALD J. EIDSON 3239</p>
			<p>LA</p>

MARK OWEN NO 10 (U/A)  
Mark Owen No. 10 San Andres Production



MARK OWEN NO 10 (2)  
Mark Owen No. 10 Grayburg Production



**Mark Owen No. 10  
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 02/04/2006 and was taken out of production on 10/17/2006 in order to re-complete the well to the Grayburg formation. The Grayburg formation was brought on production on 10/26/2006 and is currently still producing as a single well completion.

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

	Oil	Gas	Water
San Andres	.04	97.24	2.54
Grayburg	<u>17.16</u>	<u>82.57</u>	<u>1.87</u>
Totals	17.20	179.81	4.41

Percentages	Oil	Gas	Water
San Andres	$.04/17.20=0.002$ (0%)	$97.24/179.81=.54$ (54%)	$2.54/4.41=.5759$ (58%)
Grayburg	$17.16/17.20=.998$ (100%)	$82.57/179.81=.46$ (46%)	$1.87/4.41=.4240$ (42%)

Production -- Detail

Select By : Completions

Pressure Base : None  
Units : A.P.I.  
Rounded (y/n) : No

Sort By : None selected in Report Options.

Page No : 1  
Report Number : R\_016  
Print Date : 2/6/2007 10:10:23 AM

Completion	Date	Oil Production	Water Production	Gas Production	Chk./S.P.M.	Tubing Pres.	Casing Pres.	Dn. Hrs.	Lift	Injection	Inj. Pres.
MARK OWEN NO 10 (2)	1/6/2007	22.40	1.25	76.84		300.00	100.00	0.0	0.00	0.00	0.00
	1/7/2007	23.68	9.30	76.69		300.00	100.00	0.0	0.00	0.00	0.00
	1/8/2007	23.38	0.76	77.45		300.00	100.00	0.0	0.00	0.00	0.00
	1/9/2007	13.46	1.01	76.74		300.00	100.00	0.0	0.00	0.00	0.00
	1/10/2007	21.93	1.01	77.25		300.00	100.00	0.0	0.00	0.00	0.00
	1/11/2007	17.94	1.26	76.74		300.00	100.00	0.0	0.00	0.00	0.00
	1/12/2007	25.13	1.44	77.25		300.00	100.00	0.0	0.00	0.00	0.00
	1/13/2007	18.85	9.01	77.09		300.00	100.00	0.0	0.00	0.00	0.00
	1/14/2007	21.05	2.88	76.64		300.00	100.00	0.0	0.00	0.00	0.00
	1/15/2007	17.02	1.51	69.37		300.00	100.00	0.0	0.00	0.00	0.00
	1/16/2007	14.35	0.76	76.94		300.00	100.00	0.0	0.00	0.00	0.00
	1/17/2007	15.35	0.50	81.31		300.00	100.00	0.0	0.00	0.00	0.00
	1/18/2007	22.04	0.50	80.80		300.00	100.00	0.0	0.00	0.00	0.00
	1/19/2007	24.43	0.76	79.48		300.00	100.00	0.0	0.00	0.00	0.00
	1/20/2007	12.55	0.76	79.43		300.00	100.00	0.0	0.00	0.00	0.00
	1/21/2007	13.21	1.26	79.79		300.00	100.00	0.0	0.00	0.00	0.00
Totals-- 01/2007	1/22/2007	24.43	1.26	78.26		300.00	100.00	0.0	0.00	0.00	0.00
	1/23/2007	15.85	0.50	79.48		300.00	100.00	0.0	0.00	0.00	0.00
	1/24/2007	16.23	0.76	78.77		300.00	100.00	0.0	0.00	0.00	0.00
	1/25/2007	18.16	3.52	83.85		300.00	100.00	0.0	0.00	0.00	0.00
	1/26/2007	13.21	1.01	92.24		300.00	100.00	0.0	0.00	0.00	0.00
	1/27/2007	18.35	1.01	91.58		300.00	100.00	0.0	0.00	0.00	0.00
	1/28/2007	15.53	1.26	91.83		300.00	100.00	0.0	0.00	0.00	0.00
	1/29/2007	14.20	2.52	91.68		300.00	100.00	0.0	0.00	0.00	0.00
	1/30/2007	9.24	3.52	89.09		300.00	100.00	0.0	0.00	0.00	0.00
	1/31/2007	11.89	1.26	89.34		300.00	100.00	0.0	0.00	0.00	0.00
Totals-- 02/2007	2/1/2007	463.84	50.58	2,105.93		300.00	100.00	0.0	0.00	0.00	0.00
	2/2/2007	11.23	1.26	92.90		300.00	100.00	0.0	0.00	0.00	0.00
	2/3/2007	13.87	1.26	93.76		300.00	100.00	0.0	0.00	0.00	0.00
	2/4/2007	10.01	1.26	93.25		300.00	100.00	0.0	0.00	0.00	0.00
Totals-- MARK OWEN NO 10 (2)		514.79	56.12	2,477.32				0.0		0.00	
Report Totals		514.79	56.12	2,477.32				0.0		0.00	

514.79 / 30 = 17.16  
56.12 / 30 = 1.87  
2,477.32 / 30 = 82.57



Production -- Detail

Select By : Completions

Pressure Base : None  
Units : A.P.I.

Sort By : None selected in Report Options.

Rounded (y/n) : No

Page No : 1  
Report Number : R\_016  
Print Date : 2/6/2007 10:08:00 AM

Completion	Date	Oil Production	Water Production	Gas Production	Chk./S.P.M.	Tubing Pres.	Casing Pres.	Dn. Hts.	Lift	Injection	Inj. Pres.
MARK OWEN NO 10 (I/A)	9/18/2006	0.65	3.57	101.94	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/19/2006	0.61	3.57	101.42	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/20/2006	0.00	2.74	105.31	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/21/2006	0.00	2.74	104.79	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/22/2006	0.00	3.52	104.10	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/23/2006	0.00	1.96	103.89	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/24/2006	0.00	1.96	103.53	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/25/2006	0.00	2.35	103.74	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/26/2006	0.00	0.78	102.69	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/27/2006	0.00	0.78	99.55	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/28/2006	0.00	0.39	102.17	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/29/2006	0.00	1.18	103.21	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	9/30/2006	0.00	0.79	103.74	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	Totals--	1.26	26.31	1,340.08	0.00	0.00	0.00	0.0	0.00	0.00	0.00
Totals-- 09/2006	10/1/2006	0.00	1.40	103.21	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/2/2006	0.00	1.40	101.90	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/3/2006	0.00	1.41	93.74	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/4/2006	0.00	0.70	99.38	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/5/2006	0.00	2.81	101.43	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/6/2006	0.00	0.70	100.91	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/7/2006	0.00	1.41	100.40	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/8/2006	0.00	2.11	100.56	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/9/2006	0.00	4.94	101.02	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/10/2006	0.00	10.57	58.91	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/11/2006	0.00	9.16	72.74	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/12/2006	0.00	1.41	81.45	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/13/2006	0.00	7.05	85.03	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/14/2006	0.00	1.41	91.69	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/15/2006	0.00	0.71	93.74	0.00	0.00	0.00	0.0	0.00	0.00	0.00
Totals-- 10/2006	10/16/2006	0.00	0.71	94.10	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	10/17/2006	0.00	2.12	96.82	0.00	0.00	0.00	0.0	0.00	0.00	0.00
	Totals-- MARK OWEN NO 10 (I/A)	1.26	50.00	1,577.03	0.00	0.00	0.00	0.0	0.00	0.00	0.00
Totals-- MARK OWEN NO 10 (I/A)		1.26	76.30	2,917.11	0.00	0.00	0.00	0.0	0.00	0.00	0.00
Report Totals		1.26	76.30	2,917.11	0.00	0.00	0.00	0.0	0.00	0.00	0.00

$$\frac{1.26}{30} = 0.04$$
$$\frac{76.30}{30} = 2.54$$
$$\frac{2,917.11}{30} = 97.24$$