



**George F. Pritchard**  
Project Manager / Geologist

**North America Upstream**  
Midcontinent Business Unit  
11111 S. Wilcrest, Rm S1052  
Houston, Texas 77099  
Tel (281) 561-4918  
Fax (281) 561-3576  
gpritchard@chevron.com

March 22, 2006

2006 MAR 27 PM 12 27

Request for Administrative Approval of  
Unorthodox Oil Well Location and  
Simultaneous Dedication

Mr. Mark E. Fesmire  
c/o Mr. Michael E. Stogner  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Dear Mr. Fesmire:

Chevron respectfully requests administrative approval of an unorthodox oil well location for the following well:

**W.T. McComack #25**  
330 FSL & 1310 FEL, C S/2 SE/4 of  
Section 32, T21S, R37E, Unit Letter P  
Lea County, New Mexico

The proposed well will be as an infill producer in the Penrose Skelly, Grayburg Pool [Pool Code 50350], which is an oil pool spaced on 40 acres. This well is a continuation to our infill drilling in the same Pool. Chevron's technical analysis of the reservoir still supports the contention that typical Grayburg wells cannot drain 40 acres.

The SE/4 SE/4 of Section 32 will be simultaneously dedicated in the Penrose Skelly, Grayburg Pool to the proposed well and to the W.T. McComack #3. The W.T. McComack #3 [30-025-06932] was drilled in 1938 and is currently producing as Penrose Skelly, Grayburg producer. Chevron also requests approval of the simultaneous dedication.

This application is based on geological and engineering analysis. The analysis and justification for this request is attached as Exhibit 1, along with other supporting documentation. There are five wells that have produced the Grayburg formation in the SE/4 of Section 32. The proposed well will be located in a 20 acre location approximate center south of those wells. Based on drainage calculations, Chevron believes that drilling the infill well will recover reserves that would not be recovered by existing Grayburg producers.

A land plat highlighting the proposed well's location is attached as Exhibit 2. The E/2 of Section 32 is covered by a single fee lease and has common royalty and working interest ownerships. For that

March 22, 2006  
Page 2

reason and the proposed location of the infill well, there are no adversely affected interest owners and no one has been notified of this application.

If you have any questions concerning this application or need additional information, please contact me by phone at (281) 561-4918 or by email at [gpritchard@chevron.com](mailto:gpritchard@chevron.com). If I am not available, you can also reach Michael Gelbs by phone at (281) 561-4794 or by email at [mike.gelbs@chevron.com](mailto:mike.gelbs@chevron.com). Thank you for consideration of this matter.

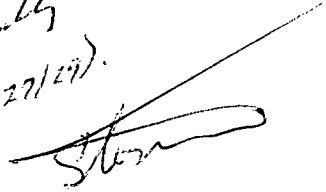
Sincerely,



George F. Pritchard  
Project Manager / Geologist

Attachments

cc: NMOCD District 1 – Hobbs, NM  
Mike Gelbs  
George Pritchard  
Well File

4-13-2006 (9:21 AM)  
Talked w/ George Pritchard who  
called to check on the status of  
his 8 month filed NGE application  
(3-27/06).  


## **NOTIFICATION LIST**

Application of Chevron U.S.A. Inc. for Administrative Approval of an Unorthodox Oil Well Location and Simultaneous Dedication:

**W.T. McComack #25**

330' FSL & 1310' FEL

Section 32, T21S, R37E, Unit Letter P

Lea County, New Mexico

**Offset Operators, Working Interest Owners, E/2 Section 32:**

- |    |   |                  |
|----|---|------------------|
| 1. | Chevron U.S.A. Inc.<br>11111 S. Wilcrest<br>Houston, TX 77099 | Operator/100% WI |
|----|---|------------------|

DATE IN <u>3/27/06</u>	SUSPENSE	ENGINEER <u>MIKE STOGGER</u>	LOGGED IN <u>3/27/06</u>	TYPE <u>NSL</u>	APP NO. <u>PTDSD608654167</u>
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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.**

George F. Pritchard  
 Print or Type Name

Signature

Project Manager / Geologist  
 Title

3/22/2006  
 Date

gpritchard@chevron.com  
 e-mail Address

## EXHIBIT 1

### ENGINEERING AND GEOLOGICAL JUSTIFICATION

Application of Chevron U.S.A. Inc. for Administrative Approval of an Unorthodox Oil Well Location and Simultaneous Dedication:

**W.T. McComack #25**

330' FSL & 1310' FEL

Section 32, T21S, R37E, Unit Letter P

Lea County, New Mexico

**PRIMARY OBJECTIVE: GRAYBURG**

**SUPPORTING DATA:**

1. Chevron U.S.A. Inc. (Chevron) is the operator of the proposed W.T. McComack #25 well (Exhibit 3). The proposed total depth is 4300' in the top of the San Andres formation.
2. The completion will be in the Penrose Skelly, Grayburg Oil Pool and the proposed location encroaches toward the following wells (Exhibit 4).

Operator	Well	API #	Location	Formation	Cum Prod		Current Prod		Status
					MBO	MMCF	BOPD	MCFPD	
Chevron	W.T. McComack #3	3002506932	32-P	Grayburg	92	817	9	402	inactive 3/2003
Chevron	W.T. McComack #4	3002506933	32-O	Grayburg	90	524	11	299	active Pre-1974
Chevron	W.T. McComack #6	3002506935	32-J	Grayburg	79	622	8	315	active Pre-1974
Chevron	W.T. McComack #7	3002506936	32-I	Grayburg	33	0	--	--	inactive pre-1970
Chevron	W.T. McComack #17	3002523117	32-I	Grayburg	9	339	7	412	active 7/2003
Chevron	W.T. McComack #20	3002536743	32-O	Grayburg	6	81	1	235	active 10/2004

3. The proposed W.T. McComack #25 unorthodox Grayburg location is based primarily on drainage considerations:

a. Grayburg Reservoir

The Grayburg is a series of alternating subtidal and supratidal dolomites with the subtidal rock having porosity and hydrocarbons while the supratidal rock is tight. The Grayburg depositional environments varied rapidly so that many porous and tight intervals are not continuous from well to well on 40-acre spacing. Tight dolomite and/or anhydrite intervals within the Grayburg create vertical and horizontal flow barriers between different zones of porosity. Additionally, average porosity of the Grayburg is less than 10%, and the average permeability is less than 1

millidarcy. For all of these reasons, Grayburg wells are not usually capable of draining a 40-acre proration unit.

The reservoir was also analyzed by mapping the Hydrocarbon Pore Volume (HCPV) (Exhibit 5). HCPV is the product of feet of net pay (h) times average porosity ( $\phi$ ) times oil saturation ( $S_o$ ). The attached map is the arithmetic product of grids interpreted from those values. The values were obtained as follows:

1. Net pay was read from either modern neutron-density logs or estimated from a map developed from gross pay times net-to-gross ratio (Exhibit 4).
2. Average porosity was calculated from modern well logs using a minimum of 6% crossplot porosity and a maximum of 20%.
3. Oil saturation was calculated from a fractional flow curve using representative water cut values.

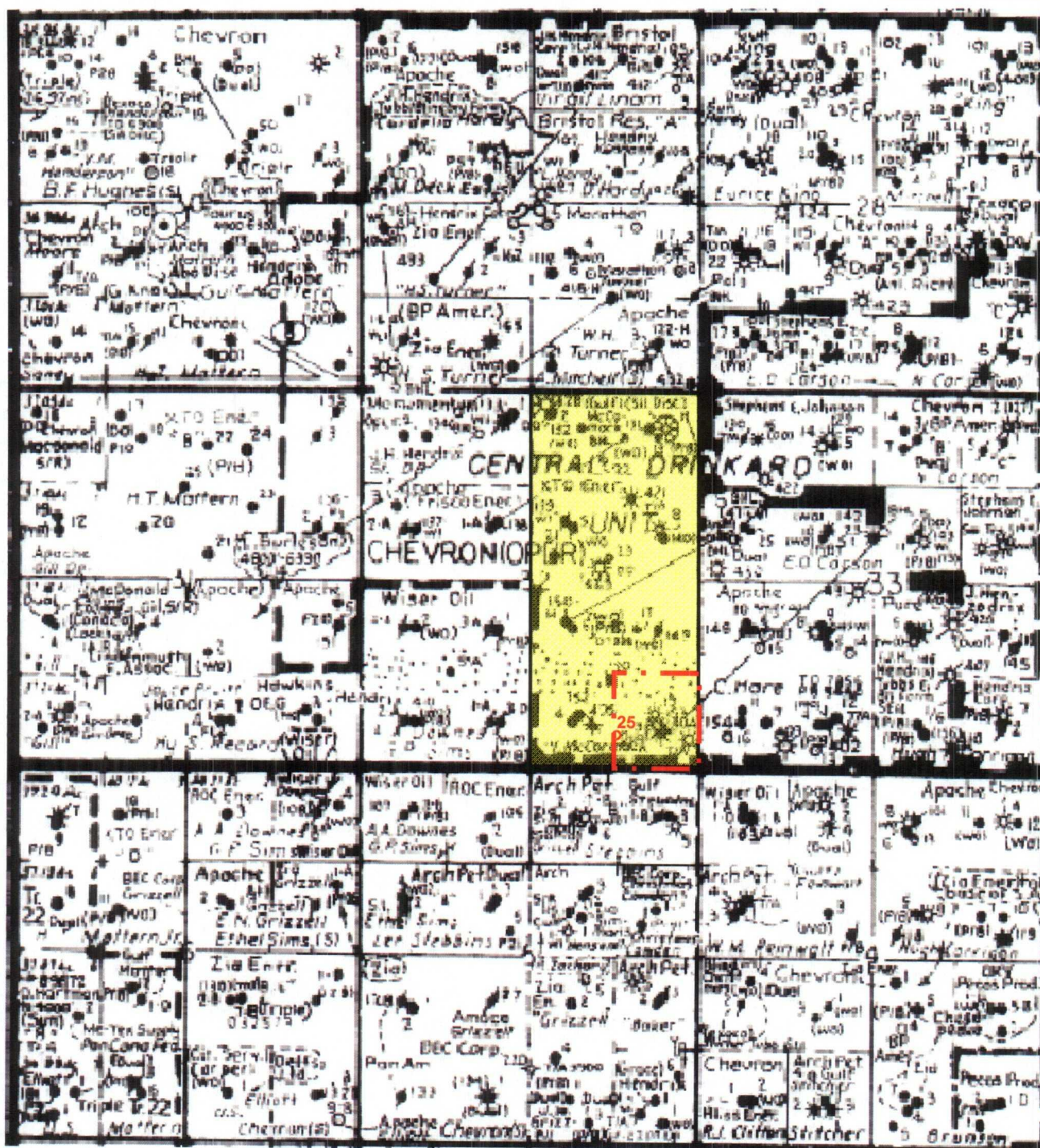
The following table provides drainage areas calculated from the HCPV map and reserves of the offsetting wells.

Operator	Well	API #	Location	Formation	Drainage Acres	EUR	
						MBO	MMCF
Chevron	W.T. McComack #3	3002506932	32-P	Grayburg	14	101	1800
Chevron	W.T. McComack #4	3002506933	32-O	Grayburg	20	112	903
Chevron	W.T. McComack #6	3002506935	32-J	Grayburg	16	90	1528
Chevron	W.T. McComack #7	3002506936	32-I	Grayburg	6	33	NA
Chevron	W.T. McComack #17	3002523117	32-I	Grayburg	2	12	1562
Chevron	W.T. McComack #20	3002536743	32-O	Grayburg	11	63	1096

As seen above, the average drainage area of the offsetting locations is 14 acres, and additional reserves can be recovered by drilling the proposed infill well at an approximate equidistant location from existing offsetting producers. Reserves for the proposed location were calculated using the HCPV map, a 14 acre drainage area, and a 15% recovery factor. The results are as follows:

Operator	Well	Location	HCPV	Drainage Acres	EUR	
					MBO	MMCF
Chevron	McComack #25	32-P	7.8	14	85	1378

4. The E/2 of Section 32 is covered by a single fee lease which has common royalty and working interest ownerships. Chevron is the operator and 100% working interest owner of the Grayburg wells toward which the proposed well will encroach. Therefore, there are no offset interest owners or adversely affected parties to notify of this application.
5. The proposed W.T. McComack #24 will share a 40-acre proration unit and will be simultaneously dedicated with the W.T. McComack #3 [30-025-06932] as a Penrose Skelly, Grayburg producer in Section 32, Unit Letter P.
6. Approval of this application will allow for the recovery of oil and gas reserves which would not otherwise be recovered.



## Chevron USA Inc.



W. T. McComack #3  
660 FSL & 660 FEL, Unit P  
W. T. McComack #25 (proposed)  
330 FSL & 1310 FEL, Unit P  
Section 32, T21S-R37E  
Lea County, New Mexico

 Eunice King Lease

40 Acre Proration Unit

Scale: 1"=2000 Approx.

## 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 and Natural Resources Department

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005

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
Property Code	Property Name <b>W.T. McCOMACK</b>		Well Number 25
OGRID No.	Operator Name <b>CHEVRON U.S.A. INC.</b>		Elevation 3455'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	32	21-S	37-E		330	SOUTH	1310	EAST	LEA

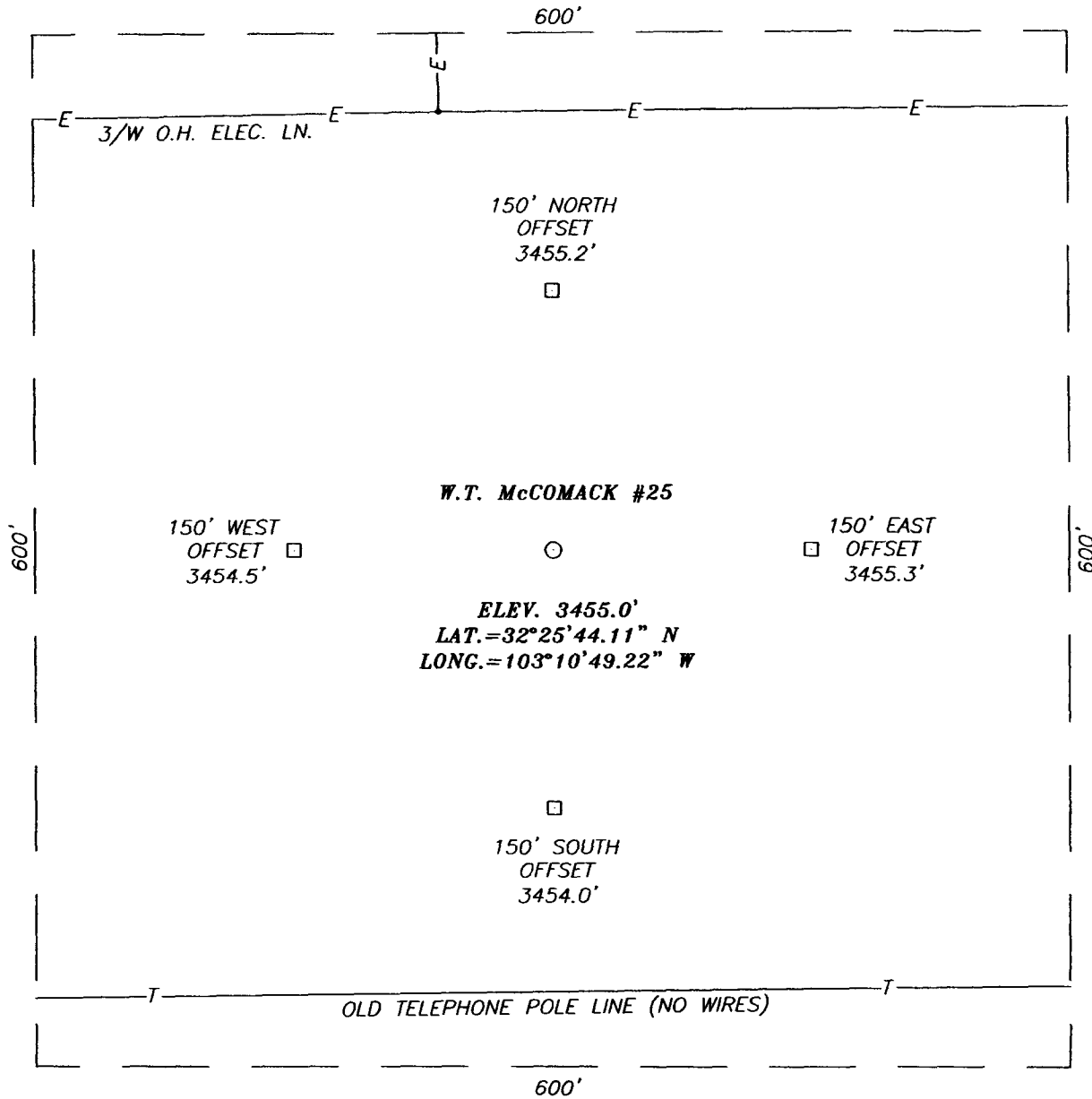
## Bottom Hole Location If Different From Surface

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

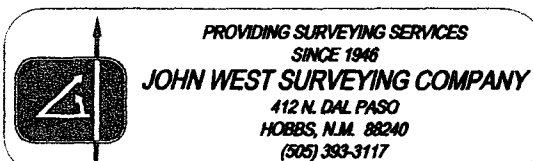
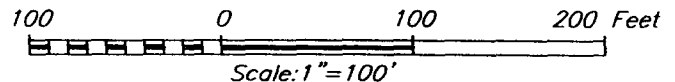
	<b>OPERATOR CERTIFICATION</b>  <i>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>  Signature _____ Date _____  Printed Name _____
	<b>SURVEYOR CERTIFICATION</b>  <i>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.</i>  FEBRUARY 17, 2006  Date Surveyed _____ DSR Signature & Seal of Professional Surveyor 
	Certificate No. <b>GARY EDSON</b> 12841

**SECTION 32, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,**  
 LEA COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF CO. RD. E-33 (S. LEGION RD.) AND CO. RD. E-23 (TEXAS AVE.), (APPROX. 1.0 MILE WEST OF EUNICE, N.M.). GO WEST ON CO. RD. E-23 APPROX. 0.37 MILE. TURN LEFT AND GO SOUTH APPROX. 0.33 MILES. TURN LEFT AND GO EAST APPROX. 0.10 MILE. THIS LOCATION IS APPROX. 500 FEET SOUTH.

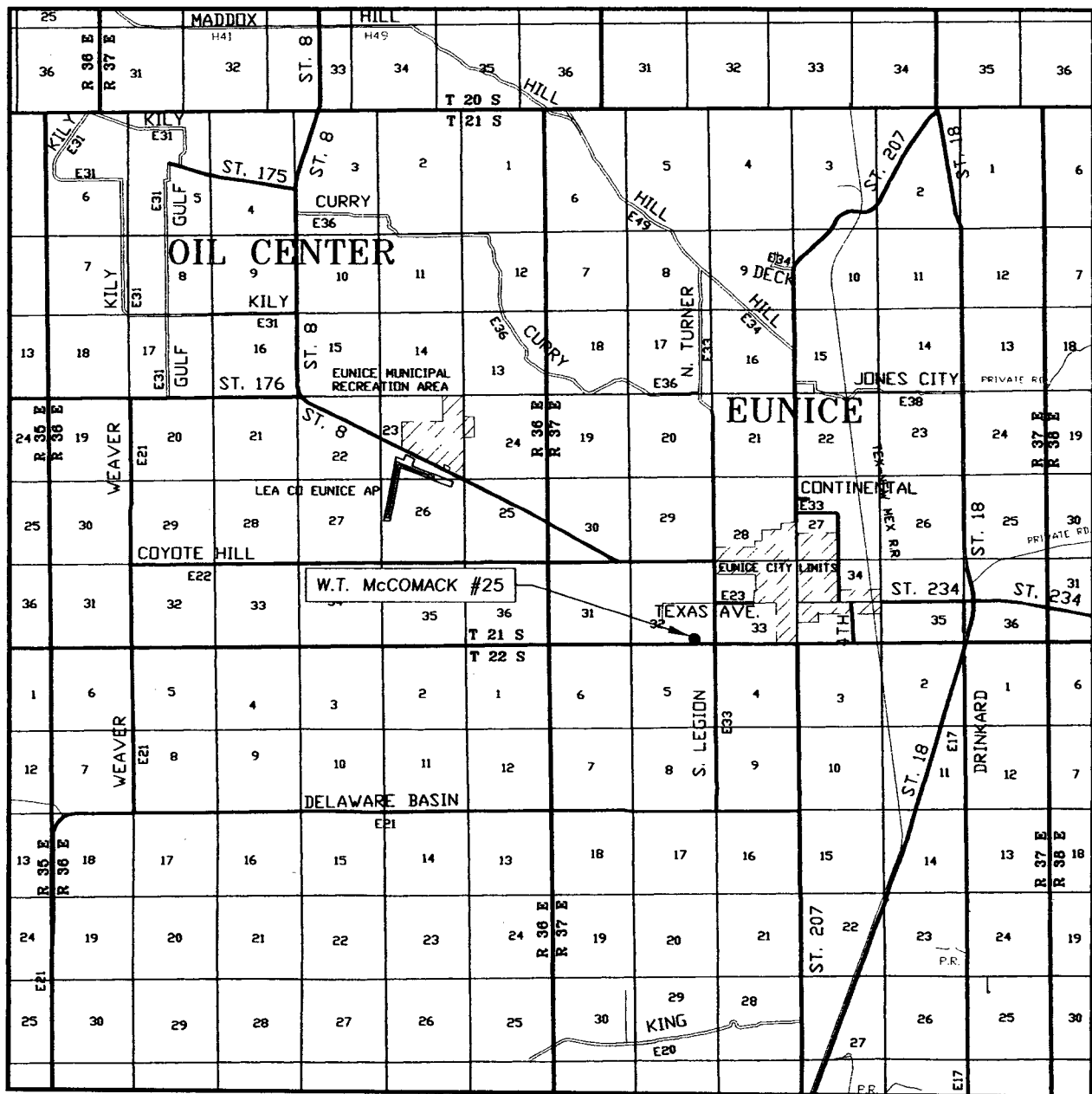


**CHEVRON U.S.A. INC.**

W.T. McCOMACK #25 WELL  
 LOCATED 330 FEET FROM THE SOUTH LINE  
 AND 1310 FEET FROM THE EAST LINE OF SECTION 32,  
 TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,  
 LEA COUNTY, NEW MEXICO.

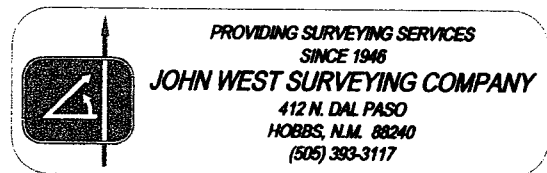
Survey Date: 02/17/06	Sheet 1 of 1 Sheets
W.O. Number: 06.11.0325	Dr By: D.S.R. Rev 1:N/A
Date: 03/06/06	Disk: CD#1 06110325 Scale: 1"=100'

# VICINITY MAP

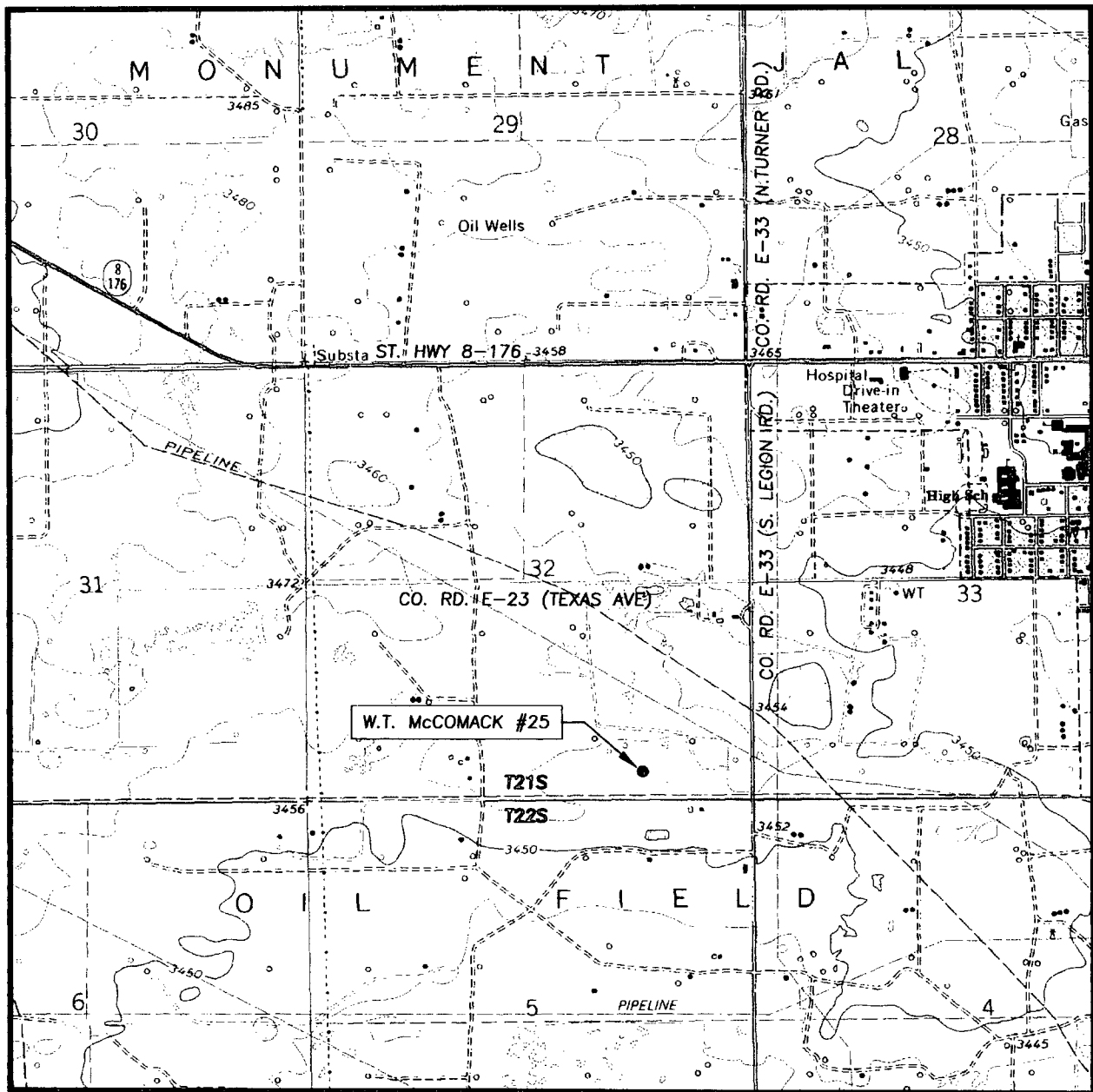


SCALE: 1" = 2 MILES

SEC. 32 TWP. 21-S RGE. 37-E  
 SURVEY \_\_\_\_\_ N.M.P.M.  
 COUNTY LEA STATE NEW MEXICO  
 DESCRIPTION 330' FSL & 1310' FEL  
 ELEVATION 3455'  
 OPERATOR CHEVRON U.S.A. INC.  
 LEASE W.T. McCOMACK



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
EUNICE, N.M. - 10'

SEC. 32 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

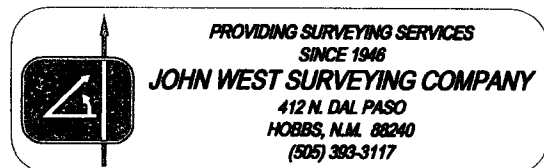
DESCRIPTION 330' FSL & 1310' FEL

ELEVATION 3455'

OPERATOR CHEVRON U.S.A. INC.

LEASE W.T. McCOMACK

U.S.G.S. TOPOGRAPHIC MAP  
EUNICE, N.M.



**District I**  
1625 N. French Dr., Hobbs, NM 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised June 10, 2003

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

**OIL CONSERVATION DIVISION**

Submit to Appropriate District Office

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410

1220 South St. Francis Dr.  
Santa Fe, NM 87505

**Exhibit 3.1**

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

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-026-06932</b>	<sup>2</sup> Pool Code <b>50350</b>	<sup>3</sup> Pool Name <b>Penrose Skelly; Grayburg</b>
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>W T McComack</b>	<sup>6</sup> Well Number <b>3</b>
<sup>7</sup> OGRID No. <b>4323</b>	<sup>8</sup> Operator Name <b>Chevron U.S.A., Inc.</b>	<sup>9</sup> Elevation <b>3467' KB</b>


<sup>10</sup> **Surface Location**

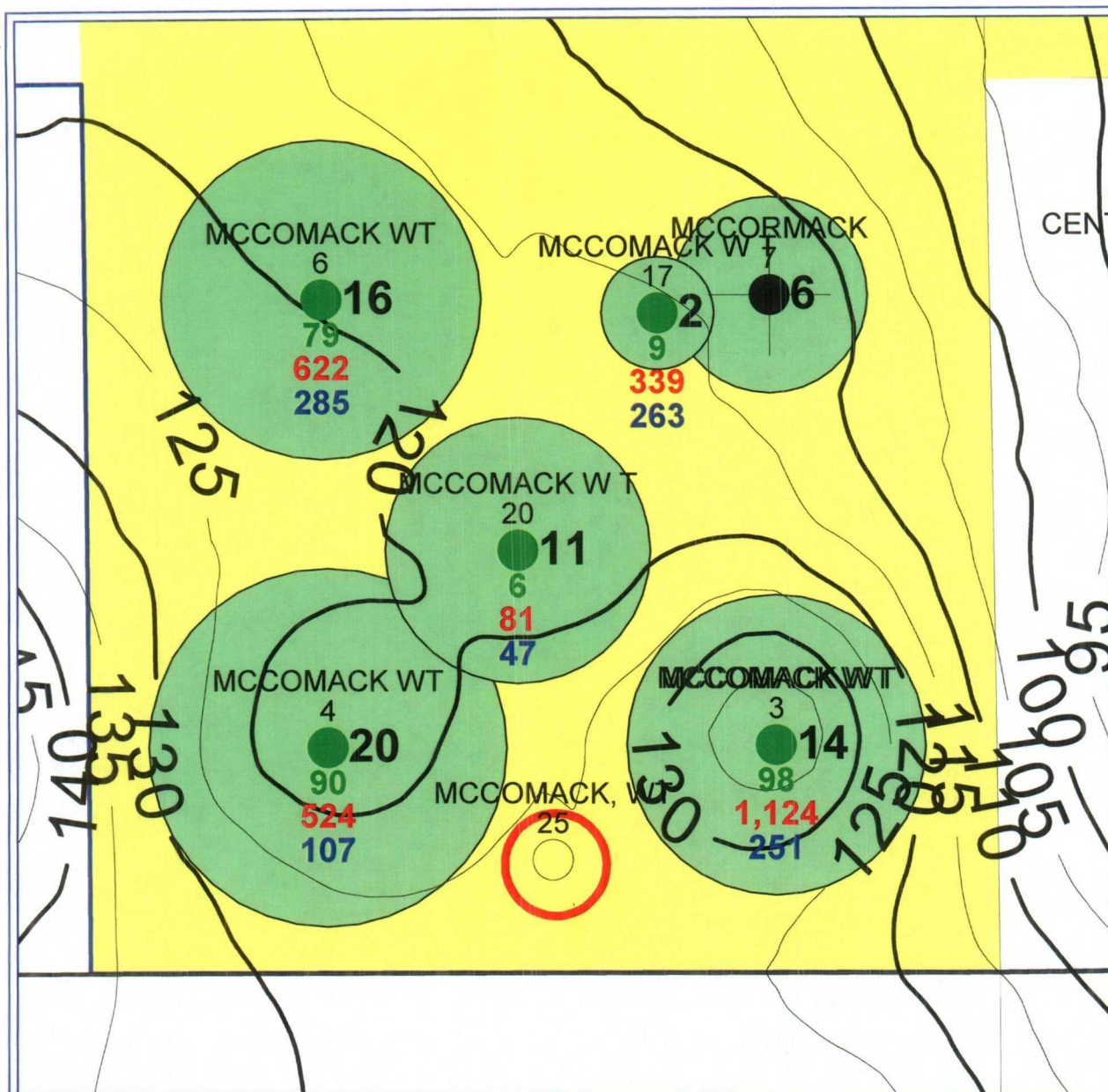
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>P</b>	<b>32</b>	<b>21S</b>	<b>37E</b>		<b>660</b>	<b>South</b>	<b>660</b>	<b>East</b>	<b>Lea</b>

<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	<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**

<div>16</div> <div>W T McComack Lease</div> <div>32</div> <div>40-acre proration unit</div> <div>3</div> <div>660'</div> <div>660'</div> <div>25</div>	<div>17</div> <div><b>OPERATOR CERTIFICATION</b></div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div> <div></div> <div>Signature</div> <div>George F. Pritchard</div> <div>Printed Name</div> <div><b>Geologist</b></div> <div>Title</div> <div><b>March 20, 2006</b></div>
	<div>18</div> <div><b>SURVEYOR CERTIFICATION</b></div> <div>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.</div> <div>Signature and Seal of Professional Surveyor:</div> <div>Certificate Number</div>



PETRA 3/24/2006 7:51:31 AM

## CHEVRON U.S.A.

### EXHIBIT 4

#### PENROSE-SKELLY FIELD W T MCCOMACK #25

Sec. 32, T21S-R37E, Lea CO. New Mexico

Grayburg Net Pay CI=5. '[Gr<40, Por>6%]

#### POSTED WELL DATA

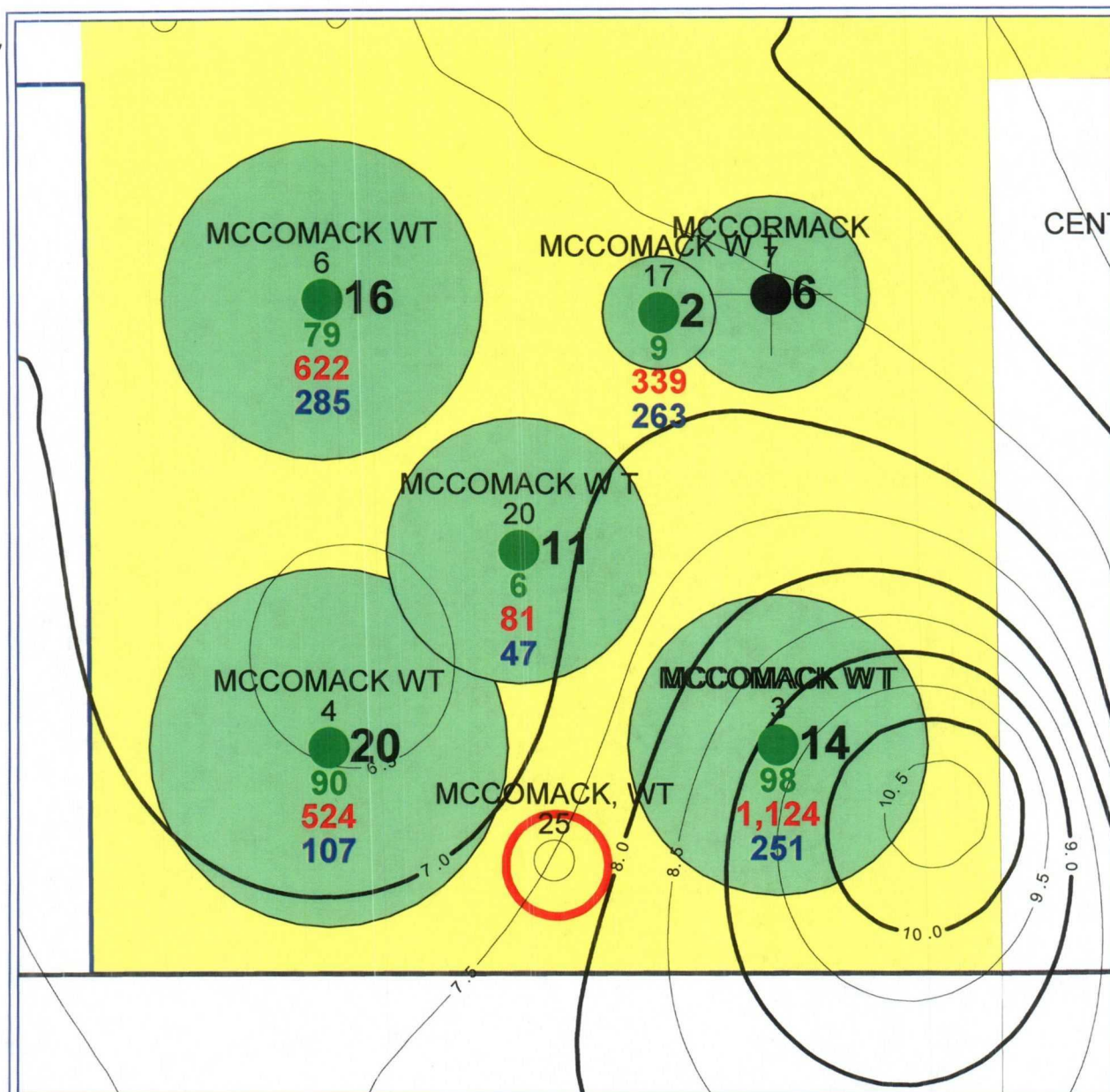
Well Name  
Well Number

● GFP\_GRAYBURG - EUR-GRAYBURG-ACRES[GFP]

GFP\_GRAYBURG - GRAYBURG-CUM\_OIL\_MBO[PI]  
GFP\_GRAYBURG - GRAYBURG-CUM\_GAS\_MMCF[PI]  
GFP\_GRAYBURG - GRAYBURG-CUM\_WATER\_MBO[PI]



March 24, 2006



PETRA 3/24/2006 7:46:21 AM

## CHEVRON U.S.A.

### EXHIBIT 5

#### PENROSE-SKELLY FIELD W T MCCOMACK #25

Sec. 32, T21S-R37E, Lea CO. New Mexico

Grayburg HCPV CI=0.5 & EUR - Drainage

#### POSTED WELL DATA

Well Name  
Well Number

● GFP\_GRAYBURG - EUR-GRAYBURG-ACRES[GFP]

GFP\_GRAYBURG - GRAYBURG-CUM\_OIL\_MBO[P]  
GFP\_GRAYBURG - GRAYBURG-CUM\_GAS\_MMCF[P]  
GFP\_GRAYBURG - GRAYBURG-CUM\_WATER\_MBO[P]



March 24, 2006

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

04/19/06 09:35:48  
OGOMES -TQ88  
PAGE NO: 1

Sec : 32 Twp : 21S Rng : 37E Section Type : NORMAL

D 40.00 CS B01327 0002 CHEVRON USA INC U 11/02/38 A A	C 40.00 CS B01327 0002 CHEVRON USA INC U 11/02/38 A A	B 40.00 Fee owned U A A A A A	A 40.00 Fee owned U A A P P A
E 40.00 CS B00085 0014 BP EXPLORATION U 07/28/38 A A A	F 40.00 CS B00085 0014 BP EXPLORATION U 07/28/38 A A	G 40.00 Fee owned U A A A A A	H 40.00 Fee owned U A A A
L 40.00 Fee owned A A	K 40.00 Fee owned A A	J 40.00 Fee owned U A A	I 40.00 Fee owned U A A
M 40.00 Fee owned A A	N 40.00 Fee owned A A A	O 40.00 Fee owned U A A A P	P 40.00 Fee owned U A A A A