

DATE 11/28/06	SUSPENSE	ENGINEER BROOKS	LOGGED IN 11/29/06	TYPE NSL	APP NO. PTDS0633361800
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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



Chewron
H.T. Mattern NCT-B
#27
5535

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.

Print or Type Name

Signature

Title

Date

e-mail Address



Sarah C. Rittenhouse
Project Manager / Geologist

North America Upstream
Midcontinent Business Unit
11111 S. Wilcrest, Rm S1031
Houston, Texas 77099
Tel (281) 561-3773
Fax (281) 561-3576
sarah.rittenhouse@chevron.com

November 6, 2006

2006 NOV 28 AM 10 12

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

Mr. Mark E. Fesmire
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:

H.T. Mattern NCT-B #27
1310' FSL & 1705' FEL, SW/4 SE/4 of
Section 30, T21S, R37E, Unit Letter O
Lea County, New Mexico

The proposed well will be 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 of our 4 year 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 SW/4 SE/4 of Section 30 will be simultaneously dedicated in the Penrose Skelly, Grayburg Pool to the proposed well and to the H.T. Mattern NCT-B #5. The H.T. Mattern NCT-B #5 was drilled in 1944 as a 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 four wells that have produced the Grayburg formation in the SE/4 of Section 30. The proposed well will be located in the approximate center point of those wells and 330' off the lease line. 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 S/2 of Section 30 is covered by a single fee lease and has common royalty and working interest ownerships. For that 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.

November 6, 2006

Page 2

If you have any questions concerning this application or need additional information, please contact me by phone at (281) 561-3773 or by email at sarah.rittenhouse@chevron.com. If I am not available, you can also reach Michael Gelbs by phone at (281) 561-7939 or by email at mike.gelbs@chevron.com. Thank you for consideration of this matter.

Sincerely,

A handwritten signature in black ink that reads "Sarah Rittenhouse". The signature is fluid and cursive, with the first name "Sarah" and last name "Rittenhouse" clearly legible.

Sarah C. Rittenhouse
Project Manager / Geologist

Attachments

cc: NMOCD District 1 – Hobbs, NM
Michael Gelbs
Sarah Rittenhouse
George Pritchard
Well File

NOTIFICATION LIST

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

H.T. Mattern NCT-B #27

1310' FSL & 1705' FEL

Section 30, T21S, R37E, Unit Letter O

Lea County, New Mexico

Offset Operators, Working Interest Owners, S/2 Section 30:

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

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
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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

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[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
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U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
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[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.

Sarah Rittenhouse
 Print or Type Name

Signature

Project Manager / Geologist
 Title

11/6/2006
 Date

Sarah.Rittenhouse@chevron.com
 e-mail Address

DISTRICT I

Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

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

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code	Pool Name
Property Code	Property Name H.T. MATTERN NCT-B		Well Number 27
OGRID No.	Operator Name CHEVRON U.S.A. INC.		Elevation 3488'

Surface Location

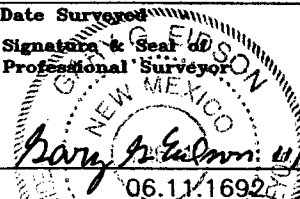
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	30	21-S	37-E		1310	SOUTH	1705	EAST	LEA

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
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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

LOT 1						OPERATOR CERTIFICATION <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>	
						<hr/> <div style="display: flex; justify-content: space-between;"> Signature _____ Date _____ </div> <hr/> Printed Name _____	
36.95 AC LOT 2						SURVEYOR CERTIFICATION <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>	
36.97 AC LOT 3						OCTOBER 30, 2006	
						Date Surveyed _____ JR Signature & Seal of Professional Surveyor _____ 	
36.99 AC LOT 4						Certificate No. GARY KIDSON 12641	
37.01 AC							

GEODETIC COORDINATES
NAD 27 NME

Y=527877.3 N
X=850018.7 E

LAT.=32.446136° N
LONG.=103.198725° W




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:

H.T. Mattern NCT-B #27

1310' FSL & 1705' FEL

Section 30, T21S, R37E, Unit Letter O

Lea County, New Mexico

PRIMARY OBJECTIVE: GRAYBURG

SUPPORTING DATA:

1. Chevron U.S.A. Inc. (Chevron) is the operator of the proposed H.T. Mattern NCT-B #27 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	Mattern #1	30025069000000	30-I	Grayburg	227	593	10	221	Water Disposal
Chevron	Mattern #10	30025069220000	31-C	Grayburg	128	1315	0	0	Inactive
Chevron	Mattern #11	30025069050000	30-N	Grayburg	74	639	0	0	Inactive
Chevron	Mattern #12	30025069230000	31-E	Grayburg	7	17	0	0	Inactive
Chevron	Mattern #14	30025240220000	30-M	Grayburg	3	185	1	183	Inactive
Chevron	Mattern #2	30025069180000	31-H	Grayburg	112	199	0	0	Inactive
Chevron	Mattern #26	30025373690000	30-J	Grayburg	2	36	22	223	Active
Chevron	Mattern #3	30025069190000	31-A	Grayburg	93	97	0	0	Active
Chevron	Mattern #4	30025069010000	30-P	Grayburg	118	683	3	108	Active
Chevron	Mattern #5	30025069020000	30-O	Grayburg	116	292	0	0	Active
Chevron	Mattern #13	30025069060000	30-J	Grayburg	1	0	0	0	Inactive
Chevron	Mattern #8	30025069040000	30-I	Grayburg	40	731	7	35	Active

3. The proposed H.T. Mattern NCT-B #27 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 (ϕ) 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.

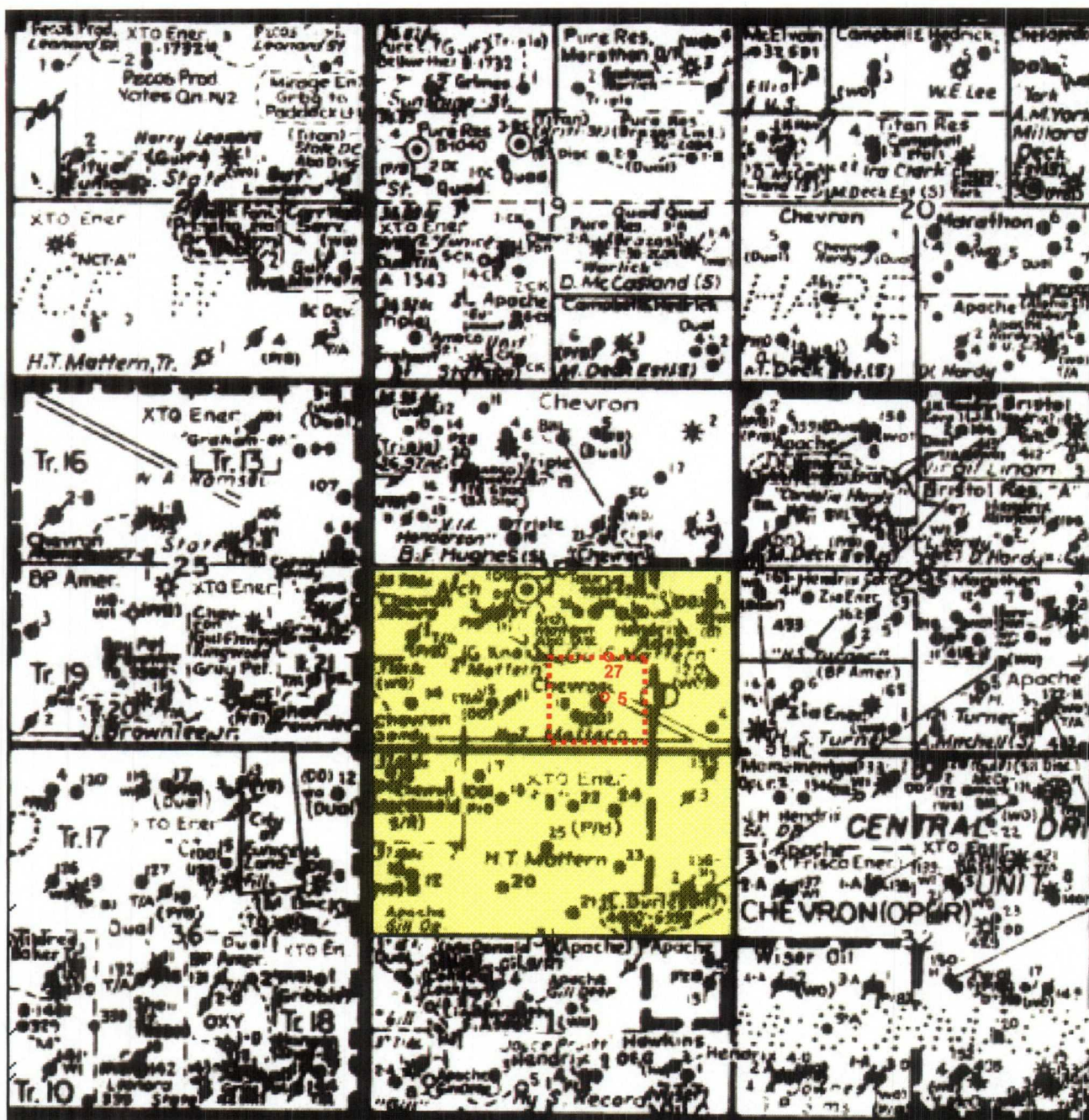
The following table provides drainage areas calculated from the HCPV map and reserves of the offsetting wells.

Operator	Well	API #	Location	Formation	Drainage Acres	EUR	
						MBO	MMCF
Chevron	Mattern B #10	30025069220000	31-C	Grayburg	27	128	1315
Chevron	Mattern B #11	30025069050000	30-N	Grayburg	15	74	639
Chevron	Mattern B #12	30025069230000	31-E	Grayburg	1	7	17
Chevron	Mattern B #14	30025240220000	30-M	Grayburg	1	7	549
Chevron	Mattern B #1	30025069000000	30-I	Grayburg	31	225	548
Chevron	Mattern B #2	30025069180000	31-H	Grayburg	21	102	214
Chevron	Mattern B #3	30025069190000	31-A	Grayburg	16	93	97
Chevron	Mattern B #4	30025069010000	30-P	Grayburg	18	120	816
Chevron	Mattern B #5	30025069020000	30-O	Grayburg	22	124	315
Chevron	Mattern B #13	30025069060000	30-J	Grayburg	0	1	0
Chevron	Mattern B #26	30025373690000	30-J	Grayburg	10	47	201
Chevron	Mattern #4	30025335440000	30-K	Grayburg	19	47	201

As seen above, the average drainage area of the offsetting locations is only 15 acres, and additional reserves can be recovered by drilling the proposed infill well at an approximate equidistant location from the existing offsetting producers. Reserves for the proposed location were calculated using the HCPV map, a 8 acre drainage area, and a 15% recovery factor. The results are as follows:

Operator	Well	Location	HCPV	Drainage Acres	EUR	
					MBO	MMCF
Chevron	Mattern B #27	30-O	9.3	8	47	201

4. The S/2 of Section 30 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 H.T. Mattern NCT-B #27 will share a 40-acre proration unit and will be simultaneously dedicated with the H.T. Mattern NCT-B #5 as a Penrose Skelly, Grayburg producer in Section 30, Unit Letter O.
6. Approval of this application will allow for the recovery of oil and gas reserves which would not otherwise be recovered.



Chevron USA Inc.



H.T. Mattern NCT-B #5
 660 FSL & 1980 FEL, Unit O
 H.T. Mattern NCT-B #27 (proposed)
 1310 FSL & 1705 FEL, Unit O
 Section 30, T21S-R37E
 Lea County, New Mexico



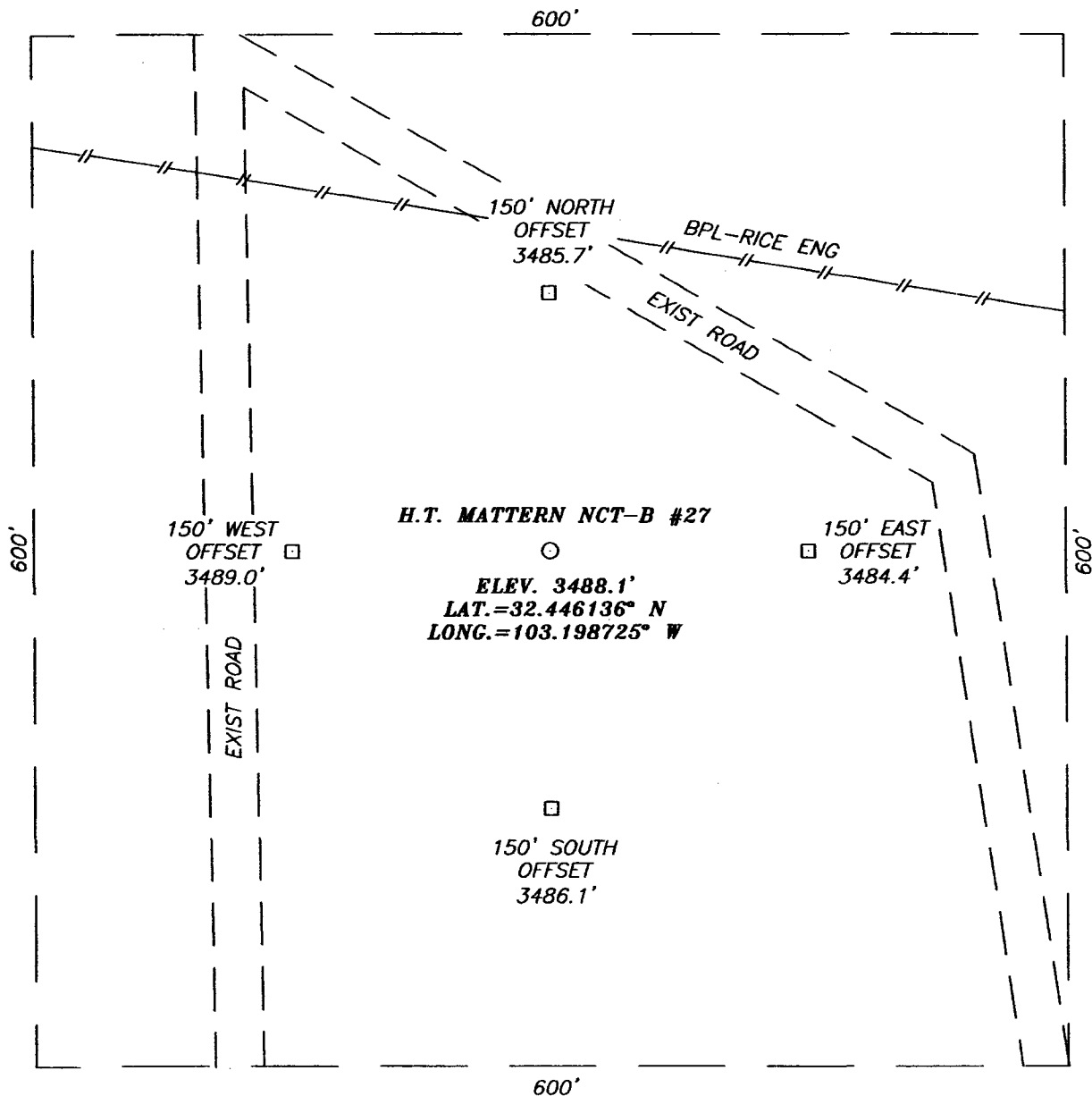
H.T. Mattern B Lease



40 Acre Proration Unit

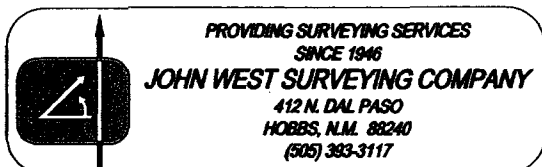
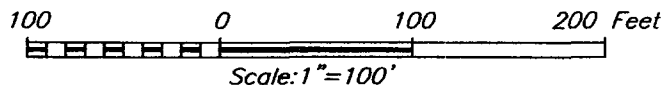
Scale: 1"=2000' Approx.

SECTION 30, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #8 AND S. LEGION RD., GO WEST ON ST. HWY. #8 APPROX. 1.3 MILES. TURN RIGHT AND GO NORTH (THROUGH CATTLEGUARD) APPROX. 0.15 MILES. THIS LOCATION IS ON WEST SIDE OF ROAD APPROX. 250 FEET.

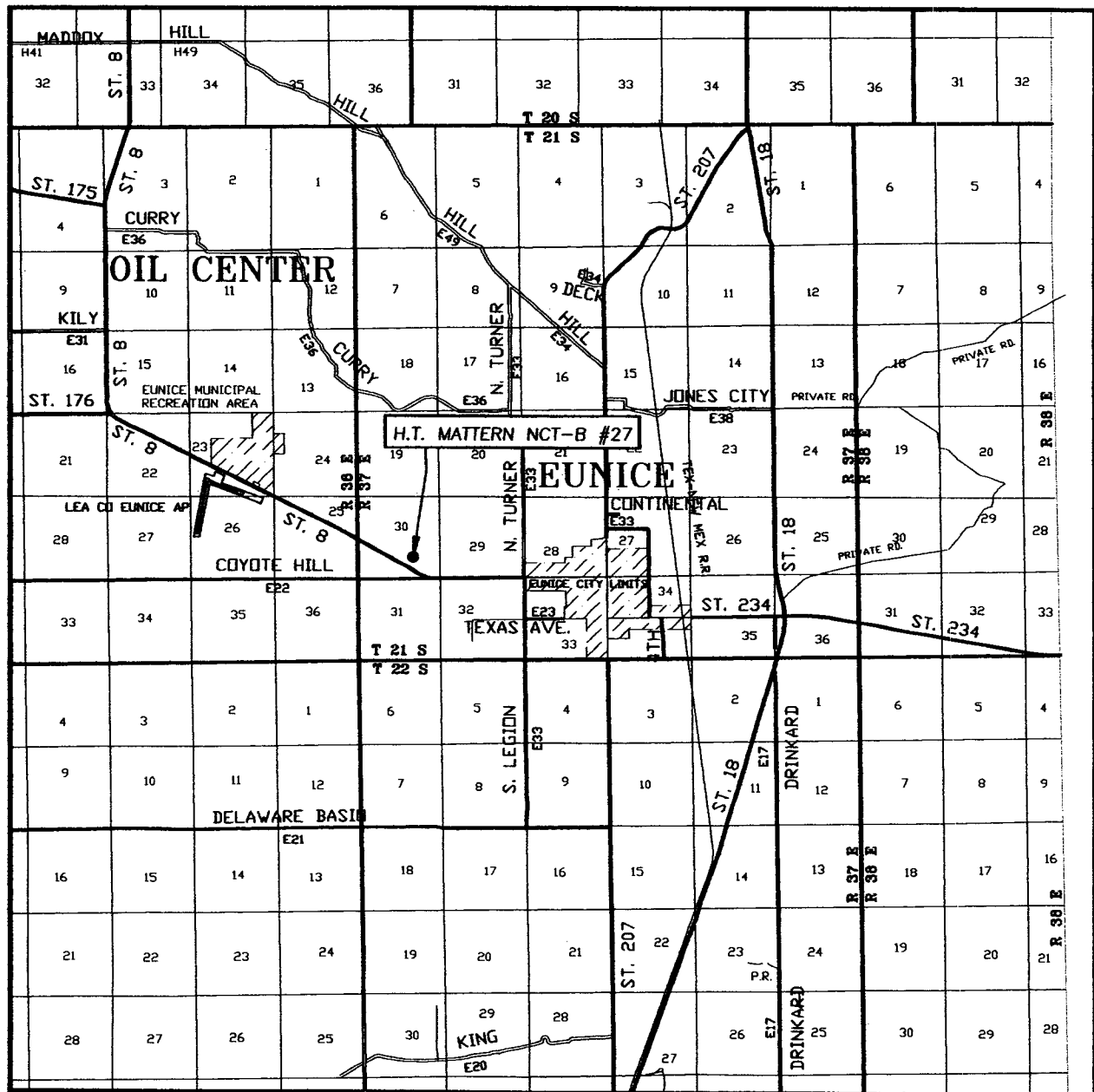


CHEVRON U.S.A. INC

H.T. MATTERN NCT-B #27
 LOCATED 1310 FEET FROM THE SOUTH LINE
 AND 1705 FEET FROM THE EAST LINE OF SECTION 30,
 TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO.

Survey Date: 10/30/06	Sheet 1 of 1 Sheets
W.O. Number: 06.11.1692	Dr By: JR
Date: 11/10/06	Rev 1:N/A
Disk: CD#1	06111692
	Scale: 1"=100'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 30 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

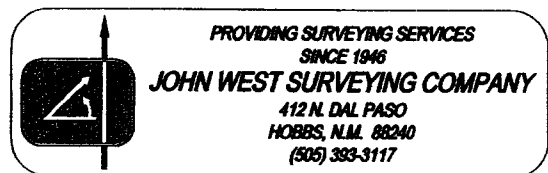
COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1310' FSL & 1705' FEL

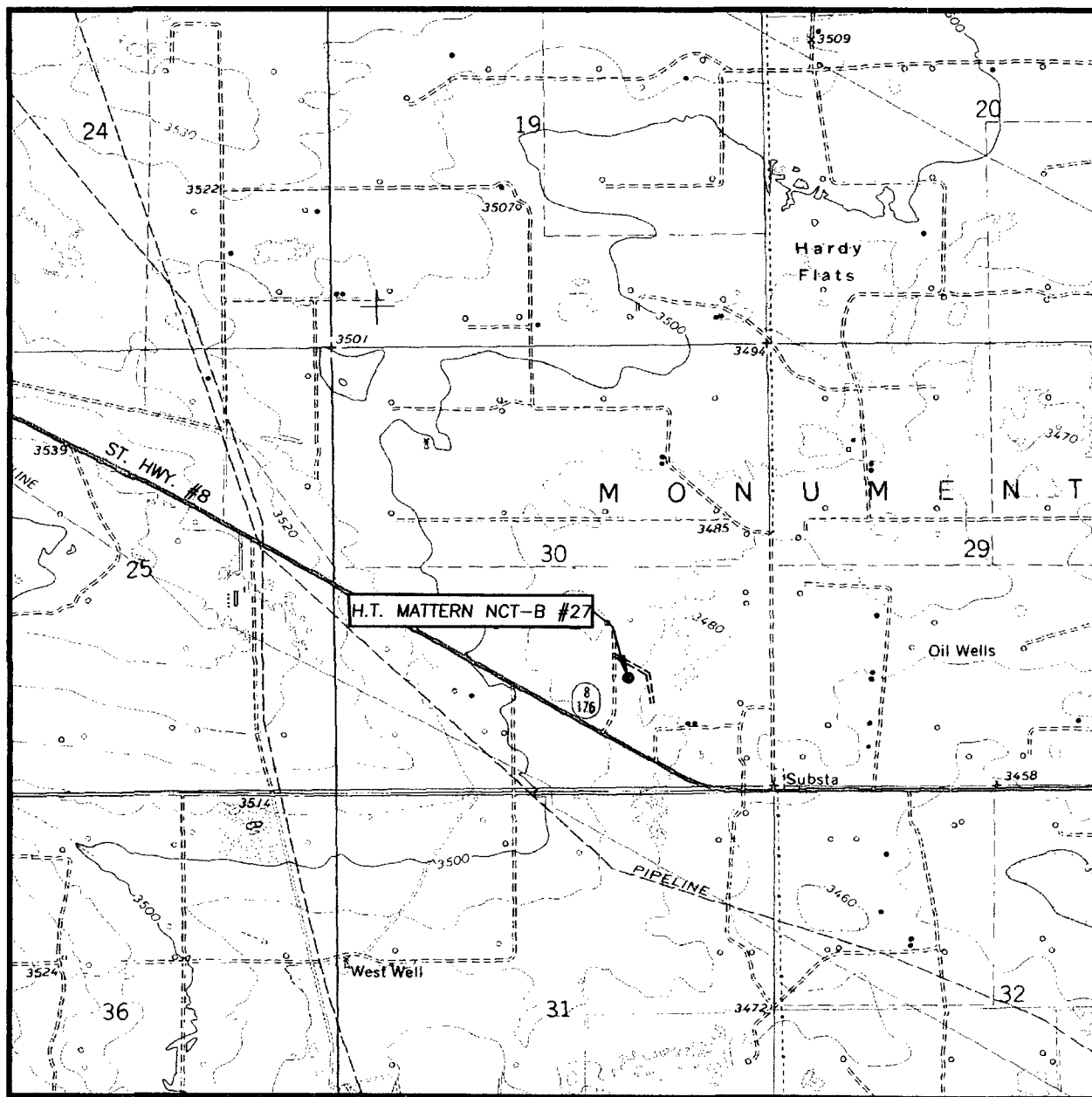
ELEVATION 3488'

OPERATOR CHEVRON U.S.A. INC.

LEASE H.T. MATTERN NCT-B



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 30 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

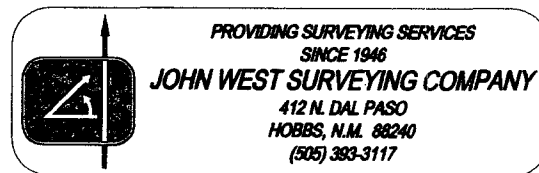
DESCRIPTION 1310' FSL & 1705' FEL

ELEVATION 3488'

OPERATOR CHEVRON U.S.A. INC.

LEASE H.T. MATTERN NCT-B

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



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

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

¹ API Number	² Pool Code 50350	³ Pool Name Penrose Skelly; Grayburg
⁴ Property Code	⁵ Property Name H.T. Mattern NCT-B	⁶ Well Number 27
⁷ OGRID No.	⁸ Operator Name Chevron U.S.A., Inc.	⁹ Elevation 3417

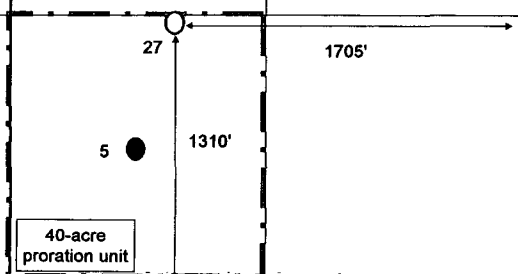
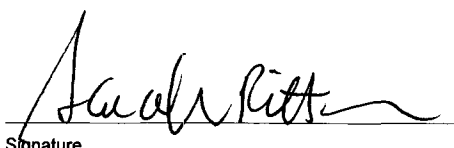
¹⁰ Surface Location

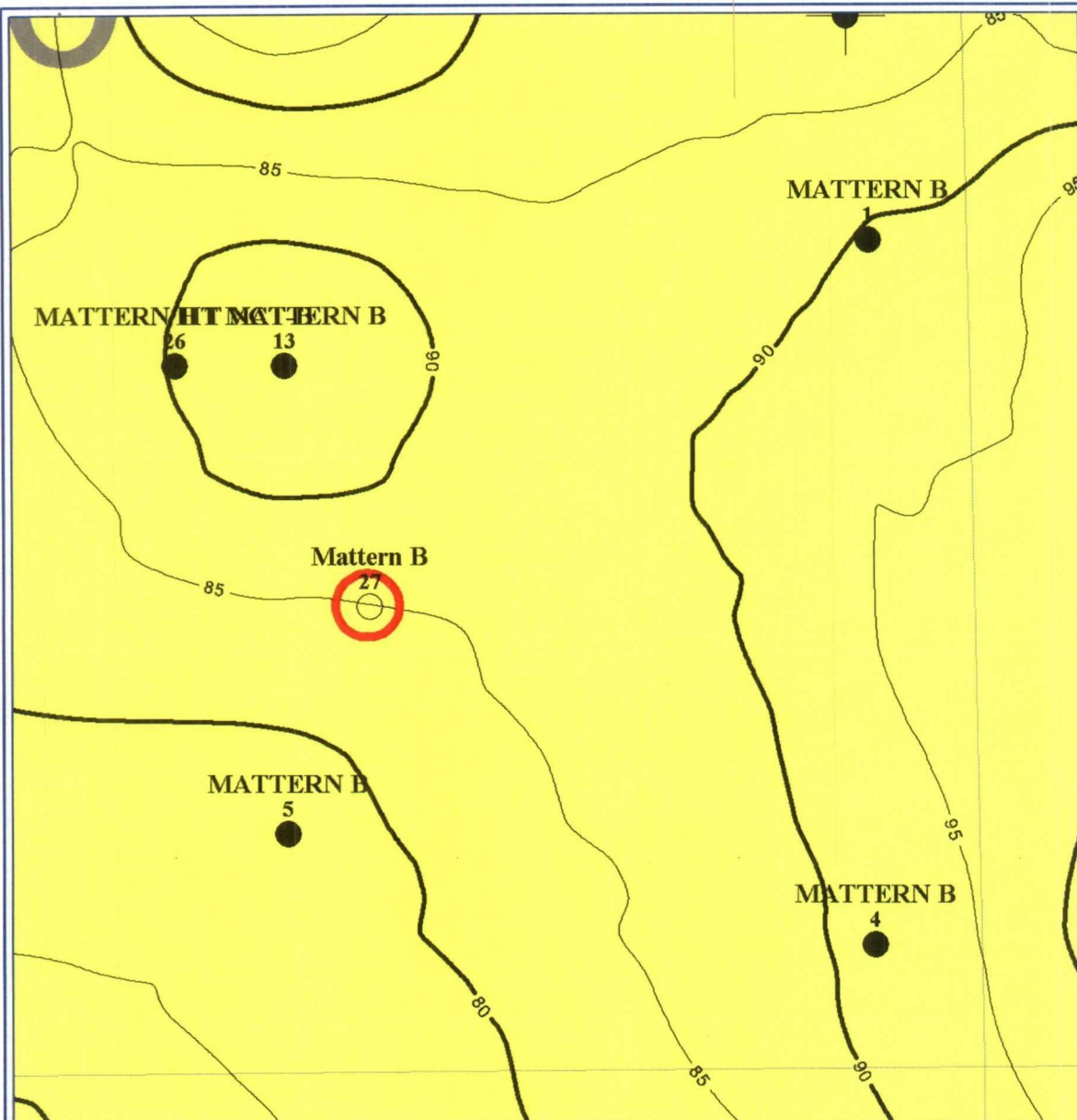
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	30	21S	37E		1310	South	1705	East	Lea

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 40	¹³ Joint or Infill	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

<div>16</div> <div></div>	<div>17</div> <div>OPERATOR CERTIFICATION</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>Sarah C. Rittenhouse</div> <div>Printed Name</div> <div>Geologist</div> <div>Title</div> <div>November 2, 2006</div> <div>Title</div>
	<div>18</div> <div>SURVEYOR CERTIFICATION</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></div> <div>Certificate Number</div>



PETRA 11/6/2006 10:56:11 AM

Chevron U.S.A. Inc.

EXHIBIT 4

PENROSE-SKELLY FIELD H.T. MATTERN B #27

Sec. 30, T21S-37E, Lea CO. New Mexico

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

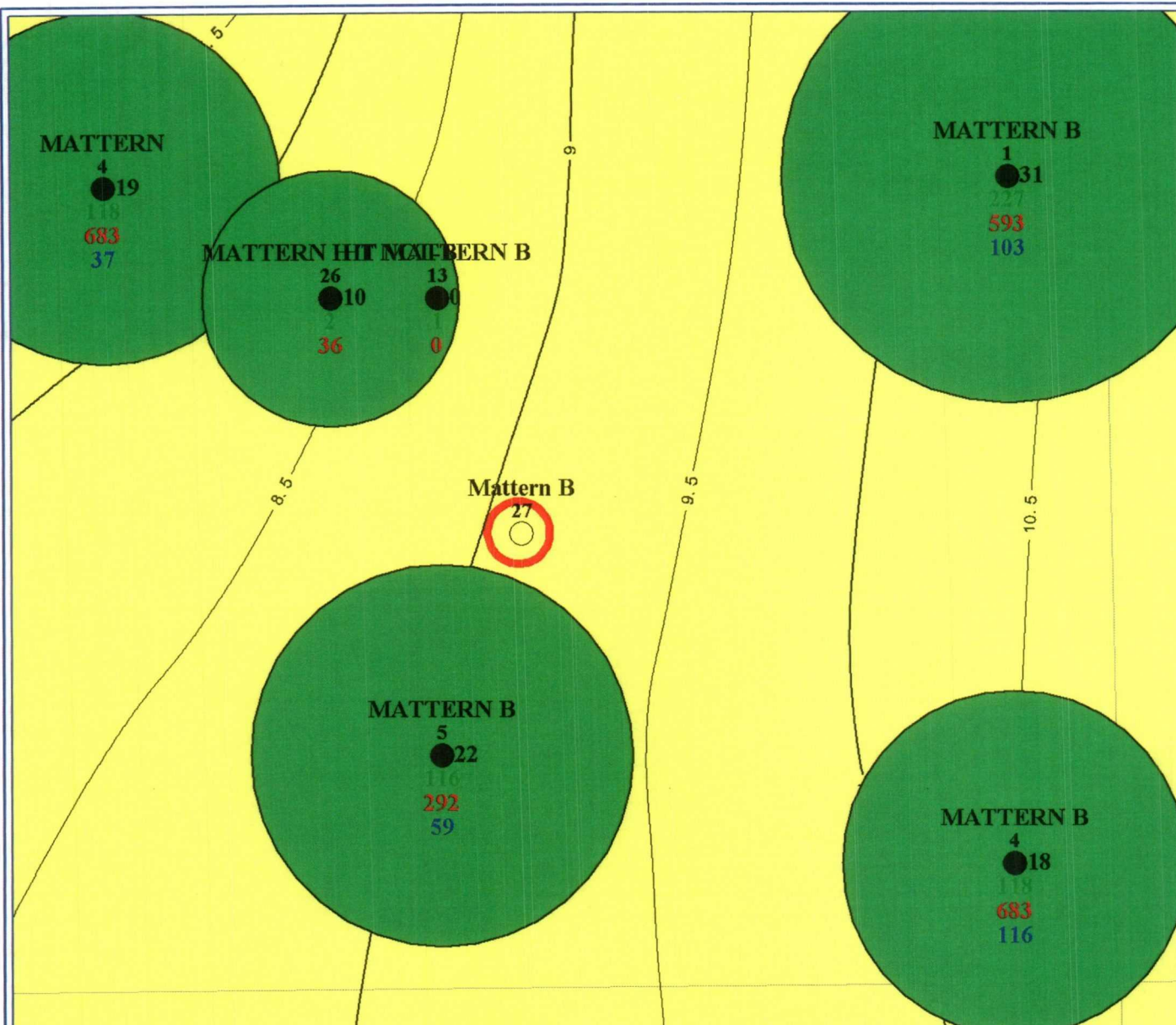


POSTED WELL DATA

Well Name
Well Number



November 6, 2006



PETRA 11/6/2006 3:16:42 PM

Chevron U.S.A. Inc.

EXHIBIT 5

PENROSE-SKELLY FIELD H.T. MATTERN B #27

Sec. 30, T21S-37E, Lea CO. New Mexico

Grayburg HCPV CI=0.5 & EUR - Drainage

POSTED WELL DATA

Well Name
Well Number

● SRLF_PENROSE_SKELLY - DRAINAGE_Z

SRLF PENROSE SKELLY - GRAYBURG CUM OIL[SRLF] (MBO)
SRLF PENROSE SKELLY - GRAYBURG CUM GAS[SRLF] (MMCF)
SRLF_PENROSE_SKELLY - GRAYBURG_CUM_WATER[SRLF] (MBO)



November 6, 2006