

4/17/08 DATE IN	SUSPENSE	Brooks ENGINEER	4/17/08 LOGGED IN	NSL TYPE	PKVR0810852967 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



Cherion
H.T. Matton NCTB#
28

ADMINISTRATIVE APPLICATION CHECKLIST

5822

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.

Casey R. Mobley
Print or Type Name

Signature

Project Manager / Geologist
Title

4/15/2008
Date

Casey.Mobley@chevron.com
e-mail Address

RECEIVED
2008 APR 17 PM 2 34



Casey R. Mobley
Project Manager / Geologist

North America Upstream
Midcontinent Business Unit
11111 S. Wilcrest, Rm S1037
Houston, Texas 77099
Tel (281) 561-4830
Fax (281) 561-3576
Casey.Mobley@chevron.com

April 15, 2008

Request for Administrative Approval of
Unorthodox Oil Well Location

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 #28

1330' FSL & 660' FEL, NE/4 SE/4 of
Section 30, T21S, R37E, Unit Letter I
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 6 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 NE/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 #1 pursuant to statewide Rule 104.B(1). The H.T. Mattern NCT-B #1 was drilled in 1937 and was completed as a Penrose Skelly producer; in 2005 the #1 was deepened in the Grayburg and recompleted to increase production.

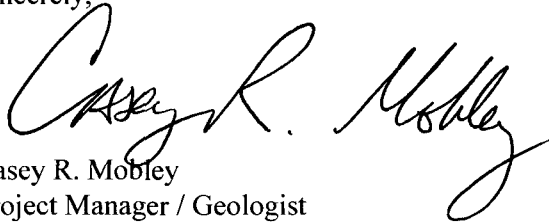
This application is based on geological and engineering analysis. The analysis and justification for this request is attached as Exhibit 1, along with other supporting documentation. There are six wells that have produced the Grayburg formation in the SE/4 of Section 30. The proposed well will be located in the approximate eastern center point of those wells, approximately 10' off the southern boundary line of Lot I. 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 SE/4 of Section 30 is covered by a single fee lease and has common royalty and working interest ownership from Surface to 6,330 feet. 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.

April 15, 2008
Page 2

If you have any questions concerning this application or need additional information, please contact me by phone at (281) 561-4830 or by email at Casey.Mobley@chevron.com. If I am not available, you can also reach Meilin Du by phone at (281) 561-3564 or by email at meilin.du@chevron.com. Thank you for consideration of this matter.

Sincerely,

A handwritten signature in black ink that reads "Casey R. Mobley". The signature is written in a cursive, flowing style.

Casey R. Mobley
Project Manager / Geologist

Attachments

cc: NMOCD District 1 – Hobbs, NM
Meilin Du
Ed Van Reet
Well File

NOTIFICATION LIST

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

H.T. Mattern NCT-B #28

1330' FSL & 660' FEL, NE/4 SE/4 of
Section 30, T21S, R37E, Unit Letter I
Lea County, New Mexico

Offset Operators, Working Interest Owners, SE/4 Section 30:

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

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 #28

1330' FSL & 660' FEL, NE/4 SE/4 of
Section 30, T21S, R37E, Unit Letter I
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 #28 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		EUR		Status
					MBO	MMCF	BOPD	MCFPD	MBO	MMCF	
Chevron	HT Mattern NCT B #15	3002524080002	30N 21S 37E	Grayburg	1	96	0	87	1	222	Oil
Chevron	HT Mattern NCT B #1	30025069000000	30I 21S 37E	Grayburg	237	718	18	230	248	848	Oil
Chevron	HT Mattern NCT B #4	30025069010000	30P 21S 37E	Grayburg	120	751	5	140	128	983	Oil
Chevron	HT Mattern NCT B #5	30025069020000	30O 21S 37E	Grayburg	124	332	13	53	139	401	Oil
Chevron	HT Mattern NCT B #11	30025069050000	30N 21S 37E	Grayburg	74	639	0	0	74	639	Inactive Oil
Gulf	HT Mattern NCT B #13	30025069060000	30J 21S 37E	Grayburg	1	0	0	0	1	0	Inactive Oil
Pogo	Mattern #1	30025234940002	30L 21S 37E	Grayburg	1	22	1	50	1	48	Oil
Pogo	Mattern #2	30025235350002	30K 21S 37E	Grayburg	2	55	1	48	2	86	Gas
Chevron	HT Mattern NCT B #14	30025240220000	30M 21S 37E	Grayburg	4	292	1	168	6	631	Oil
Pogo	Mattern #4	30025335440002	30K 21S 37E	Grayburg	10	123	4	123	31	430	Oil
Chevron	HT Mattern NCT B #26	30025373690000	30J 21S 37E	Grayburg	9	129	4	98	24	404	Oil
Chevron	HT Mattern NCT B #27	30025383390000	30O 21S 37E	Grayburg	6	41	7	135	27	298	Oil

3. The proposed H.T. Mattern NCT-B #28 well 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.

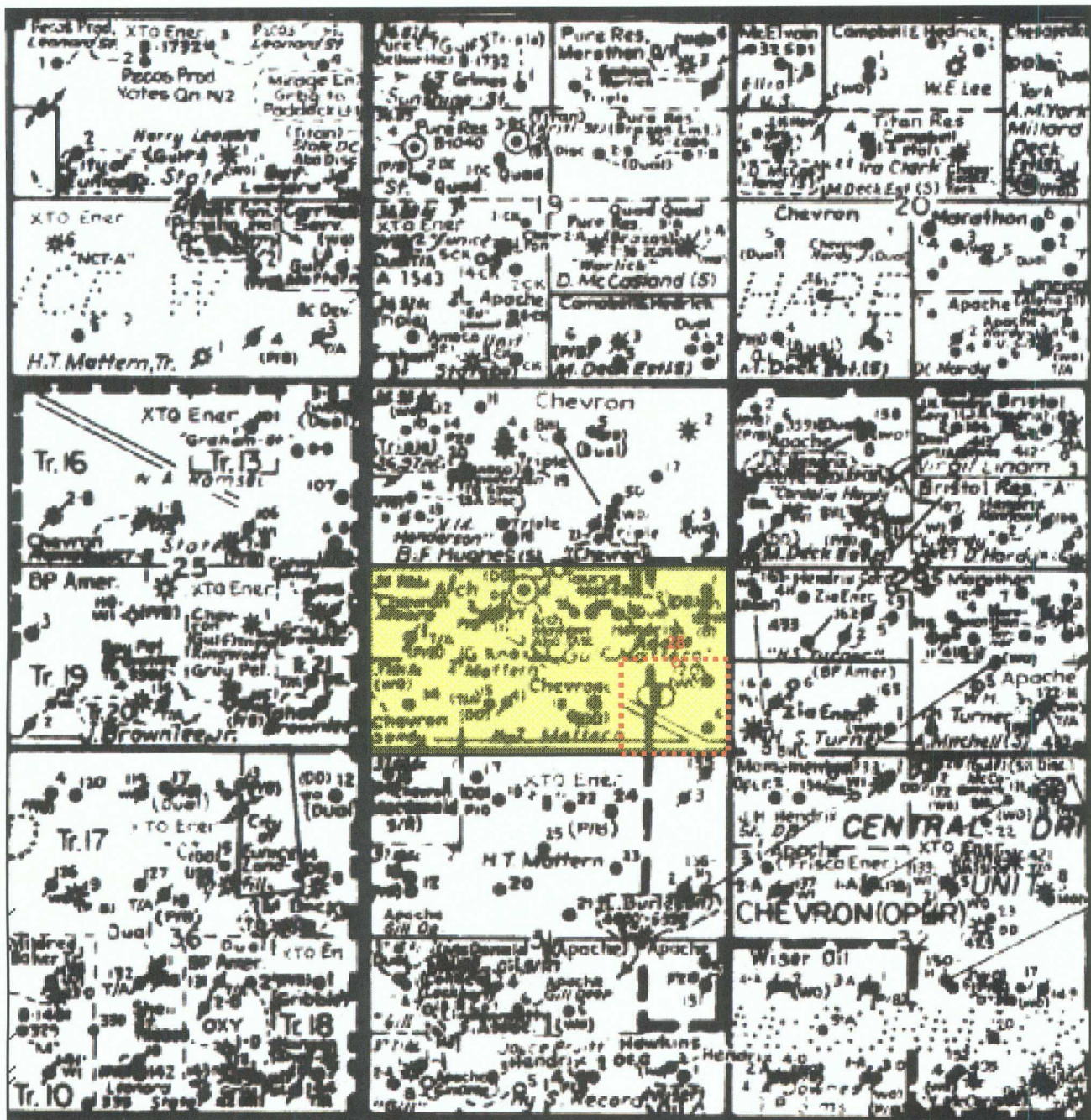
The following table provides drainage areas calculated from the HCPV map and reserves of the offsetting wells.

Operator	Well	API #	Location	Formation	Drainage Acres	EUR	
						MBO	MMCF
Chevron	HT Mattern NCT B #1	30025069000000	30I 21S 37E	Grayburg	32	248	848
Chevron	HT Mattern NCT B #4	30025069010000	30P 21S 37E	Grayburg	18	128	983
Chevron	HT Mattern NCT B #5	30025069020000	30O 21S 37E	Grayburg	23	139	401
Gulf	HT Mattern NCT B #13	30025069060000	30J 21S 37E	Grayburg	0	1	0
Chevron	HT Mattern NCT B #26	30025373690000	30J 21S 37E	Grayburg	5	24	404
Chevron	HT Mattern NCT B #27	30025383390000	30O 21S 37E	Grayburg	5	27	298

As seen above, the average drainage area of the offsetting locations is only 14 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 an average calculated HCPV value, 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	H.T. Mattern NCT-B #28	30-P	6.7	14	95	489

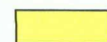
4. The SE/4 of Section 30 is covered by a single fee lease and has common royalty and working interest ownership from Surface to 6,330 feet. For that reason and the proposed location of the infill well, there are no adversely affected interest owners and no one has been notified of this application.
5. The proposed H.T. Mattern NCT-B #28 well will share a 40-acre proration unit and will be simultaneously dedicated with the H.T. Mattern NCT-B #1 as a Penrose Skelly, Grayburg producers in Section 30, Unit Letter P pursuant of statewide Rule 104.B(1).
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 #28 (proposed)
 Section 30, T21S-R37E
 Lea County, New Mexico



H.T. Mattern NCT-B 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 Bravos 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 PART

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name HT MATTERN B	Well Number 28
OGRID No.	Operator Name CHEVRON USA INC.	Elevation 3479'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	30	21-S	37-E		1330	SOUTH	660	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

LOT 1				
36.95 AC LOT 2				
36.97 AC LOT 3				
36.99 AC LOT 4				
37.01 AC				

GEODETIC COORDINATES
NAD 27 NME
Y=527909.3 N
X=851063.3 E
LAT.=32.446193° N
LONG.=103.195338° W

660'
1330'

OPERATOR CERTIFICATION

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.

Signature _____ Date _____

Printed Name _____

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 Surveyed _____ AR

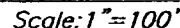
Signature & Seal of Professional Surveyor _____

Certificate No. GARY EIDSON 12841
RONALD J. EIDSON 3239

NEW MEXICO



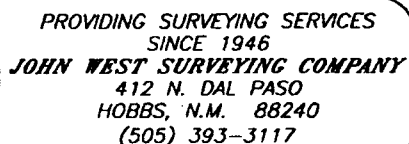
FROM THE INTERSECTION OF ST. HWY. 8 AND
LEGION RD. GO WEST ON ST. HWY. 8 APPROX. 1.0
MILE. TURN RIGHT AND GO NORTH APPROX. 0.2
MILES. TURN LEFT AND GO WEST APPROX. 400
FEET TO CHEVRON DRINKARD UNIT #120 WELL
PAD AND PROPOSED ROAD SURVEY AT THE
NORTHWEST CORNER OF THIS WELL PAD. FOLLOW
ROAD SURVEY NORTHWEST APPROX. 300 FEET TO
THIS LOCATION.



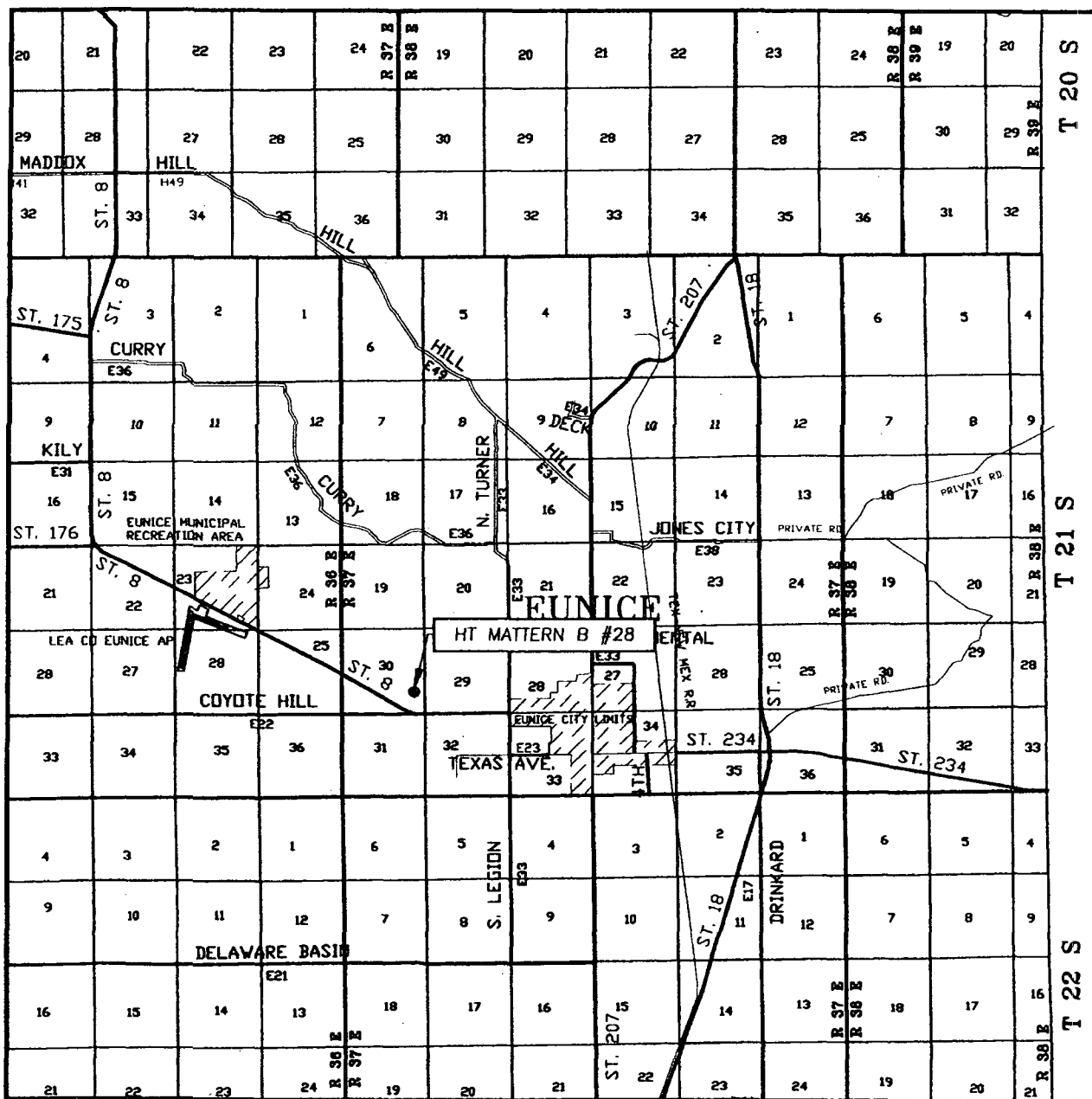
HT MATTERN B #28 WELL
LOCATED 1330 FEET FROM THE SOUTH LINE
AND 660 FEET FROM THE EAST LINE OF SECTION 30,
TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Rev 1: N/A

Scale: 1"=100'



VICINITY MAP



SCALE: 1" = 2 MILES

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

SURVEY N.M.P.M.

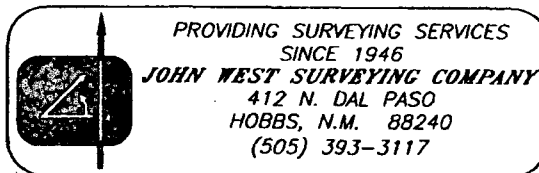
COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1330' FSL & 660' FEL

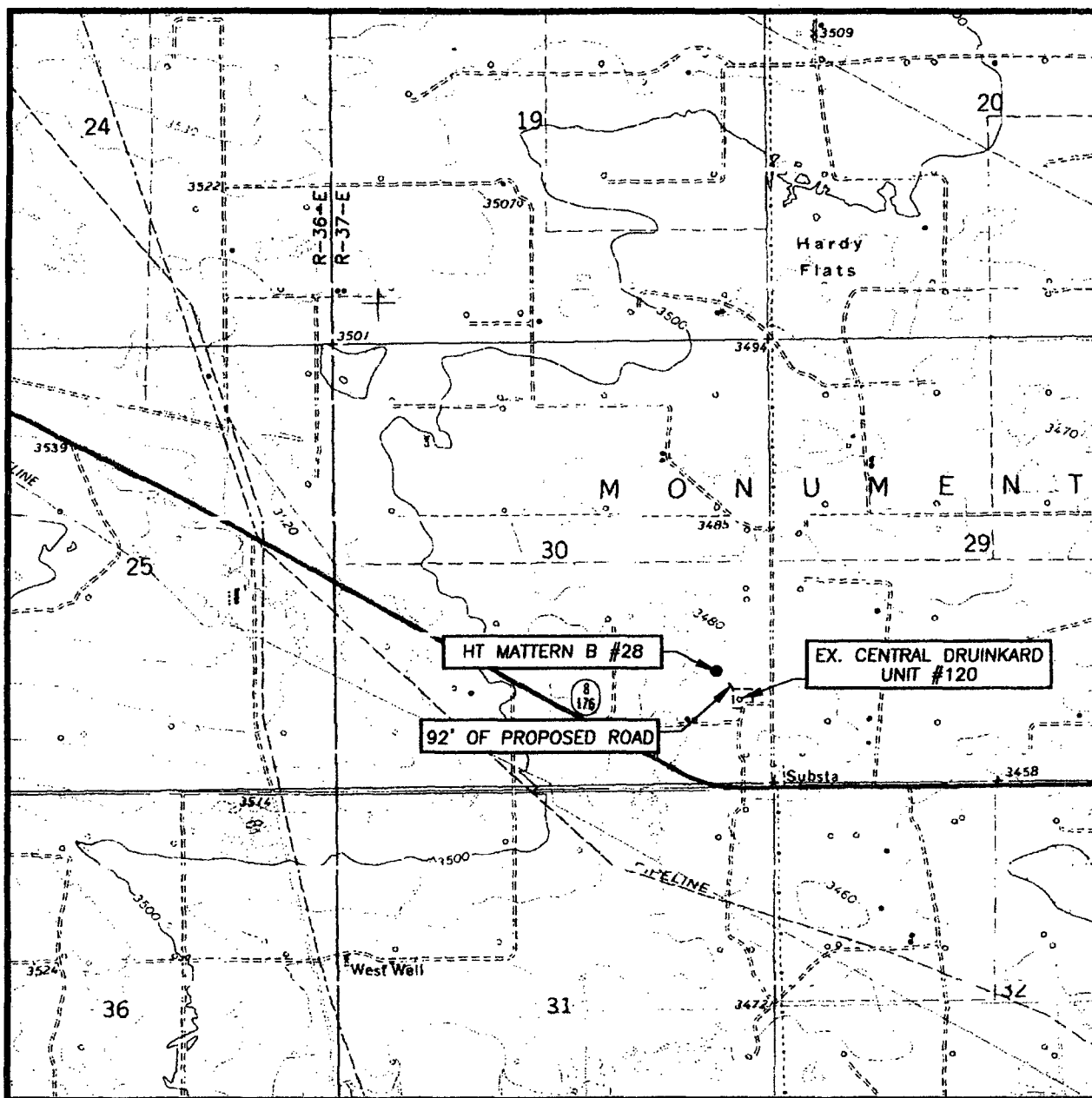
ELEVATION 3479'

OPERATOR CHEVRON USA INC.

LEASE HT MATTERN 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

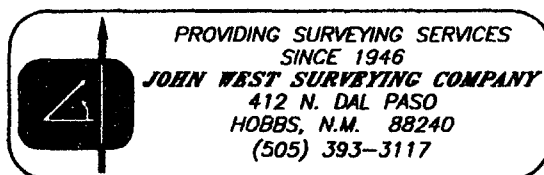
DESCRIPTION 1330' FSL & 660' FEL

ELEVATION 3479'

OPERATOR CHEVRON USA INC.

LEASE HT MATTERN B

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



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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised June 10, 2003

OIL CONSERVATION DIVISION

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

Submit to Appropriate District Office

Exhibit 3.1

☐ 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 28
⁷ OGRID No.	⁸ Operator Name Chevron U.S.A., Inc.	⁹ Elevation 3479'


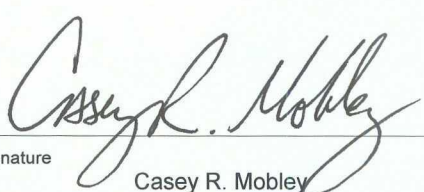
¹⁰ Surface Location

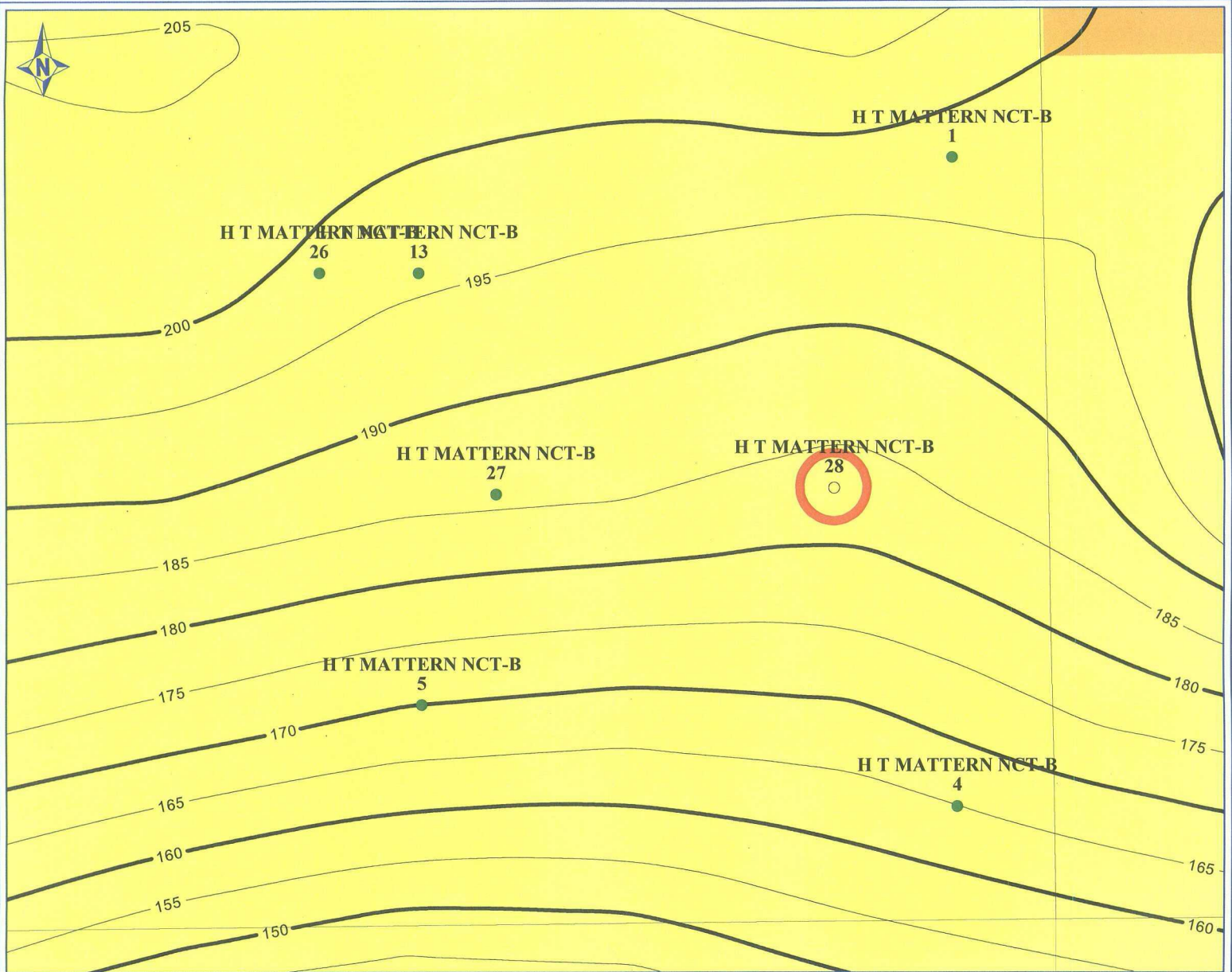
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	30	21S	37E		1330	South	660	East	Lea

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>Casey R. Mobley</div> <div>Printed Name</div> <div>Geologist</div> <div>Title</div> <div>April 15, 2008</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 3/11/2008 2:54:56 PM



Chevron U.S.A. Inc.

EXHIBIT 4

PENROSE-SKELLY FIELD HT MATTERN NCT-B 28

Sec 30, T21S-R37E, Lea Co., New Mexico

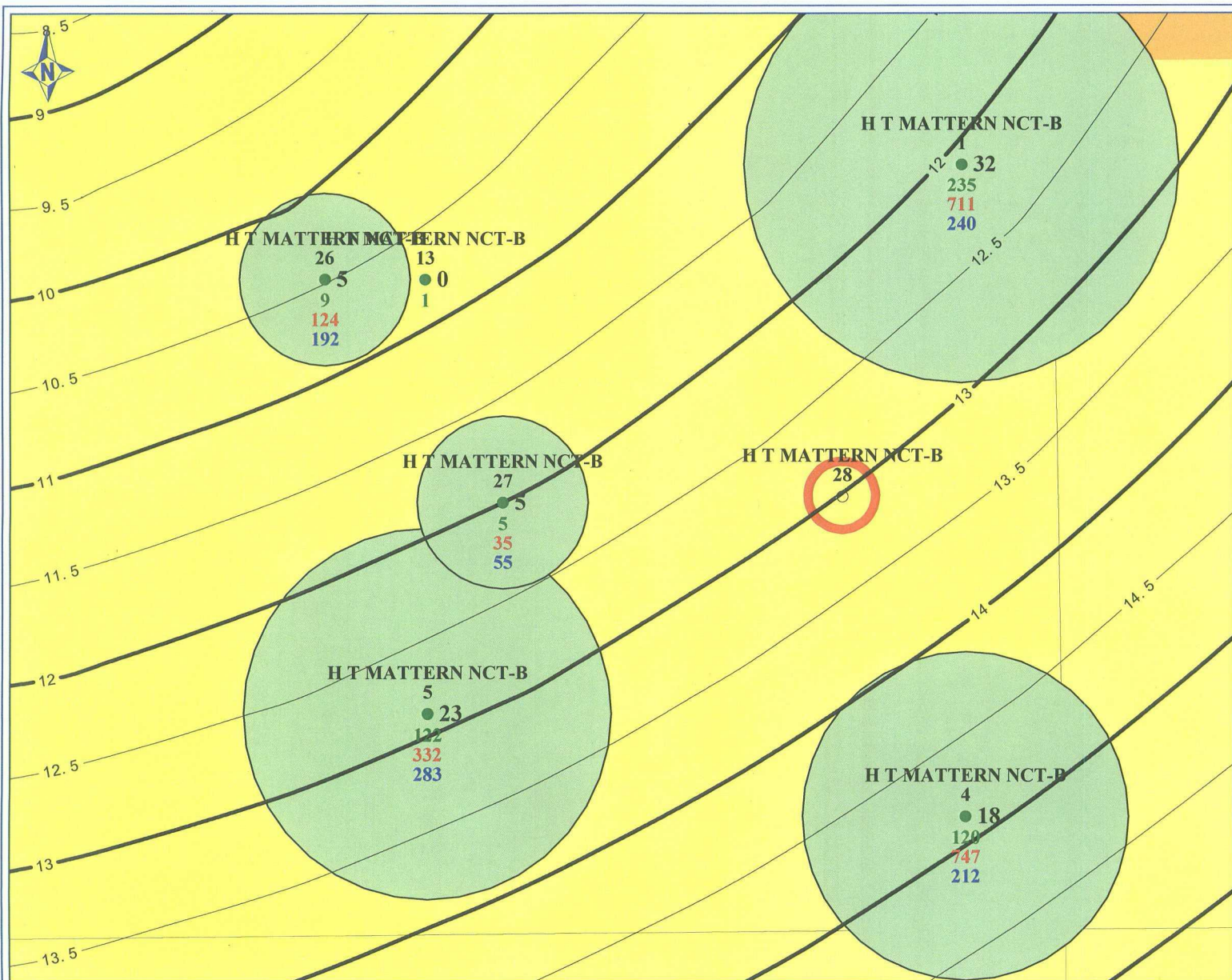
Grayburg Net Pay CI=5' [GR<40, Por>6%]

POSTED WELL DATA

Well Name
Well Number



March 11, 2008



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Chevron U.S.A. Inc.

EXHIBIT 5

PENROSE-SKELLY FIELD HT MATTERN NCT-B 28

Sec 30, T21S-R37E, Lea Co., New Mexico

Grayburg HCPV CI=0.5 & EUR - Drainage

POSTED WELL DATA

Well Name
Well Number

● GRBG Drained Area

Grayburg Cum Oil Prod (MBO)
Grayburg Cum Gas Prod (MMCF)
Grayburg Cum Water Prod (MBO)



March 11, 2008