

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



Chevron USA Inc
Mittie Weatherly
5867 #09

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.

Casey R. Mobley
 Print or Type Name

Casey R. Mobley
 Signature

Project Manager / Geologist
 Title

6/2/2008
 Date

Casey.Mobley@chevron.com
 e-mail Address

RECEIVED
 2008 JUN 5 PM 1 54



Casey R. Mobley
Project Manager / Geologist

North America Upstream
Midcontinent Business Unit
11111 S. Wilcrest, Rm S-1037
Houston, Texas 77099
Tel (281) 561-4830
Fax (281) 561-3576
Casey.Mobley@chevron.com

June 2, 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:

Mittie Weatherly #9
2235' FNL & 1470' FWL, SE/4 NW/4 of
Section 17, T21S, R37E, Unit Letter F
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 5 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 SE/4 NW/4 of Section 17 will be simultaneously dedicated in the Penrose Skelly, Grayburg Pool to the proposed well and to the Mittie Weatherly #1 pursuant to statewide Rule 104.B(1). The Mittie Weatherly #1 was drilled in 1970 and was re-completed in 1973 as a Penrose Skelly, Grayburg producer.

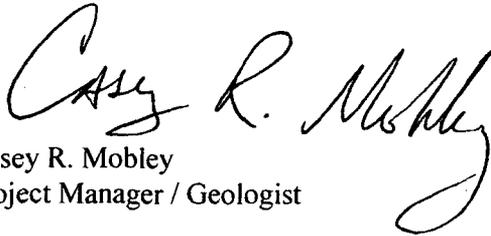
This application is based on geological and engineering analysis. The analysis and justification for this request is attached as Exhibit 1, along with other supporting documentation. There are six wells that have produced the Grayburg formation in the NW/4 of Section 17. The proposed well will be located in the approximate southern 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 NW/4 of Section 17 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.

June 2, 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) 561-3654 or by email at meilin.du@chevron.com. Thank you for consideration of this matter.

Sincerely,

Handwritten signature of Casey R. Mobley in black ink.

Casey R. Mobley
Project Manager / Geologist

Attachments

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

NOTIFICATION LIST

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

Mittie Weatherly #9

2235' FNL & 1470' FWL, SE/4 NW/4 of
Section 17, T21S, R37E, Unit Letter F
Lea County, New Mexico

Offset Operators, Working Interest Owners, SE/4, NW/4 Section 17:

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

EXHIBIT 1

ENGINEERING AND GEOLOGICAL JUSTIFICATION

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

Mittie Weatherly #9

2235' FNL & 1470' FWL, SE/4 NW/4 of
Section 17, T21S, R37E, Unit Letter F
Lea County, New Mexico

PRIMARY OBJECTIVE: GRAYBURG

SUPPORTING DATA:

1. Chevron U.S.A. Inc. (Chevron) is the operator of the proposed Mittie Weatherly #9 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 | Mittie Weatherly #1 | 30025066350000 | 17F 21S 37E | Grayburg | 42 | 822 | 3 | 132 | Oil |
| Chevron | Mittie Weatherly #3 | 30025066490001 | 17C 21S 37E | Grayburg | 39 | 588 | 5 | 134 | Oil |
| Chevron | Mittie Weatherly #4 | 30025066500001 | 17E 21S 37E | Grayburg | 59 | 1341 | 3 | 91 | Oil |
| Chevron | Mittie Weatherly #5 | 30025066510000 | 17D 21S 37E | Grayburg | 27 | 351 | - | - | Inactive Oil |
| Chevron | Mittie Weatherly #7 | 30025357450001 | 17D 21S 37E | Grayburg | 17 | 320 | 6 | 90 | Oil |
| Chevron | Mittie Weatherly #8 | 30025371880000 | 17C 21S 37E | Grayburg | 1 | 63 | 2 | 51 | Oil |

3. The proposed Mittie Weatherly #9 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.

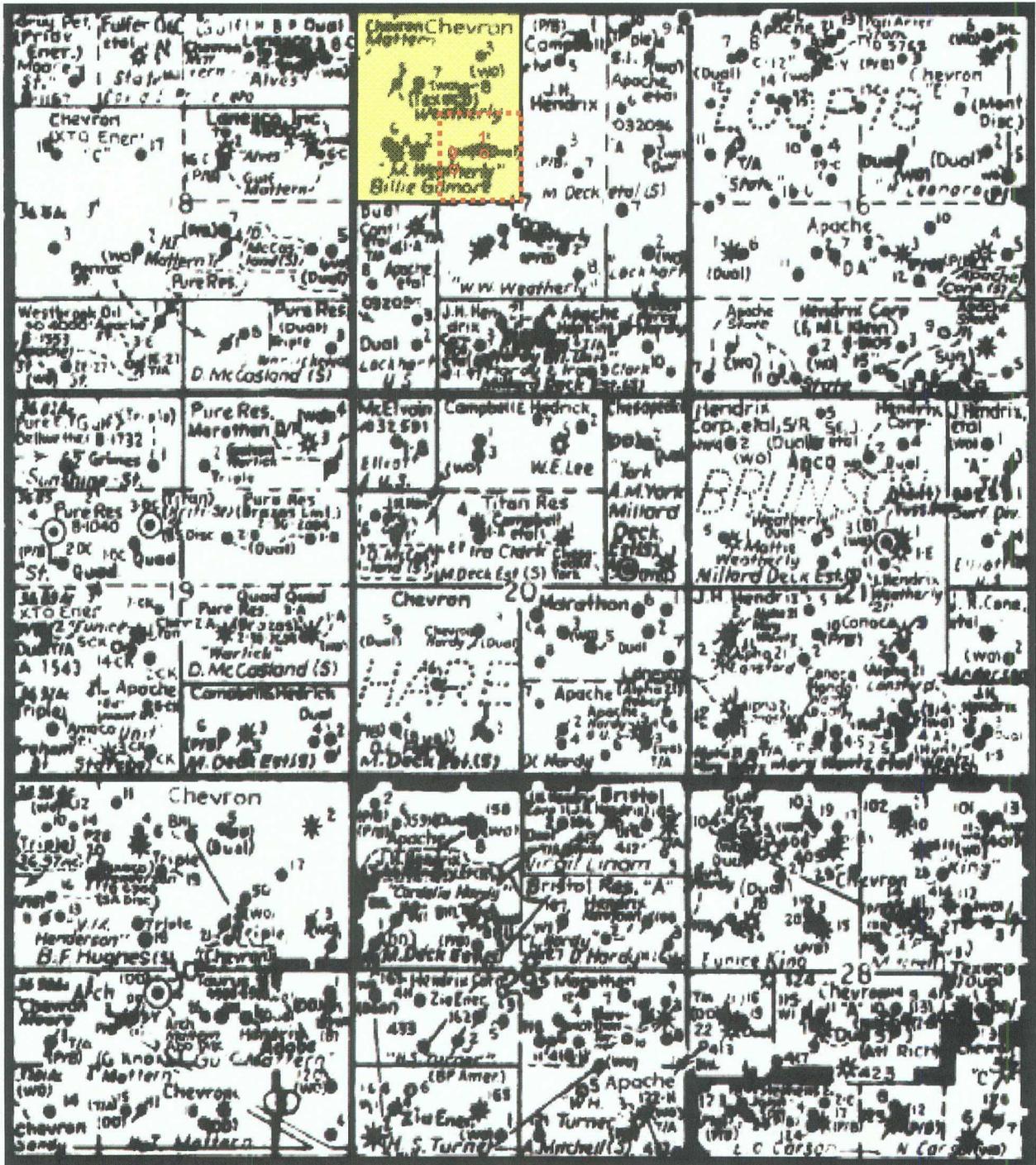
The following table provides drainage areas calculated from the HCPV map and reserves of the offsetting wells.

| Operator | Well | API # | Location | Formation | Drainage Acres | EUR | |
|----------|---------------------|----------------|-------------|-----------|----------------|-----|------|
| | | | | | | MBO | MMCF |
| Chevron | Mittie Weatherly #1 | 30025066350000 | 17F 21S 37E | Grayburg | 6 | 47 | 907 |
| Chevron | Mittie Weatherly #3 | 30025066490001 | 17C 21S 37E | Grayburg | 6 | 43 | 676 |
| Chevron | Mittie Weatherly #4 | 30025066500001 | 17E 21S 37E | Grayburg | 9 | 62 | 1392 |
| Chevron | Mittie Weatherly #5 | 30025066510000 | 17D 21S 37E | Grayburg | 4 | 27 | 351 |
| Chevron | Mittie Weatherly #7 | 30025357450001 | 17D 21S 37E | Grayburg | 4 | 28 | 465 |
| Chevron | Mittie Weatherly #8 | 30025371880000 | 17C 21S 37E | Grayburg | 1 | 2 | 123 |

As seen above, the average drainage area of the offsetting locations is only 5 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 6 acre drainage area, and a 15% recovery factor. The results are as follows:

| Operator | Well | Location | HCPV | Drainage Acres | EUR | |
|----------|---------------------|----------|------|----------------|-----|------|
| | | | | | MBO | MMCF |
| Chevron | Mittie Weatherly #9 | 17-F | 8.25 | 5 | 25 | 404 |

4. The SE/4 of the NW/4 of Section 17 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 Mittie Weatherly #9 will share a 40-acre proration unit and will be simultaneously dedicated with the Mittie Weatherly #1 as a Penrose Skelly, Grayburg producer in Section 17, Unit Letter F.
6. Approval of this application will allow for the recovery of oil and gas reserves which would not otherwise be recovered.



Chevron USA Inc.

Mittie Weatherly #1
 1980 FNL & 1980 FWL, Unit F
 Mittie Weatherly #9 (proposed)
 2335 FNL & 1470 FWL, Unit F
 Section 17, T21S-R37E
 Lea County, New Mexico

Mittie Weatherly 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 86210

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 MITTIE WEATHERLY | Well Number 9 |
| OGRID No. | Operator Name CHEVRON USA INC. | Elevation 3473' |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| F | 17 | 21-S | 37-E | | 2235 | NORTH | 1470 | WEST | LEA |

Bottom Hole Location If Different From Surface

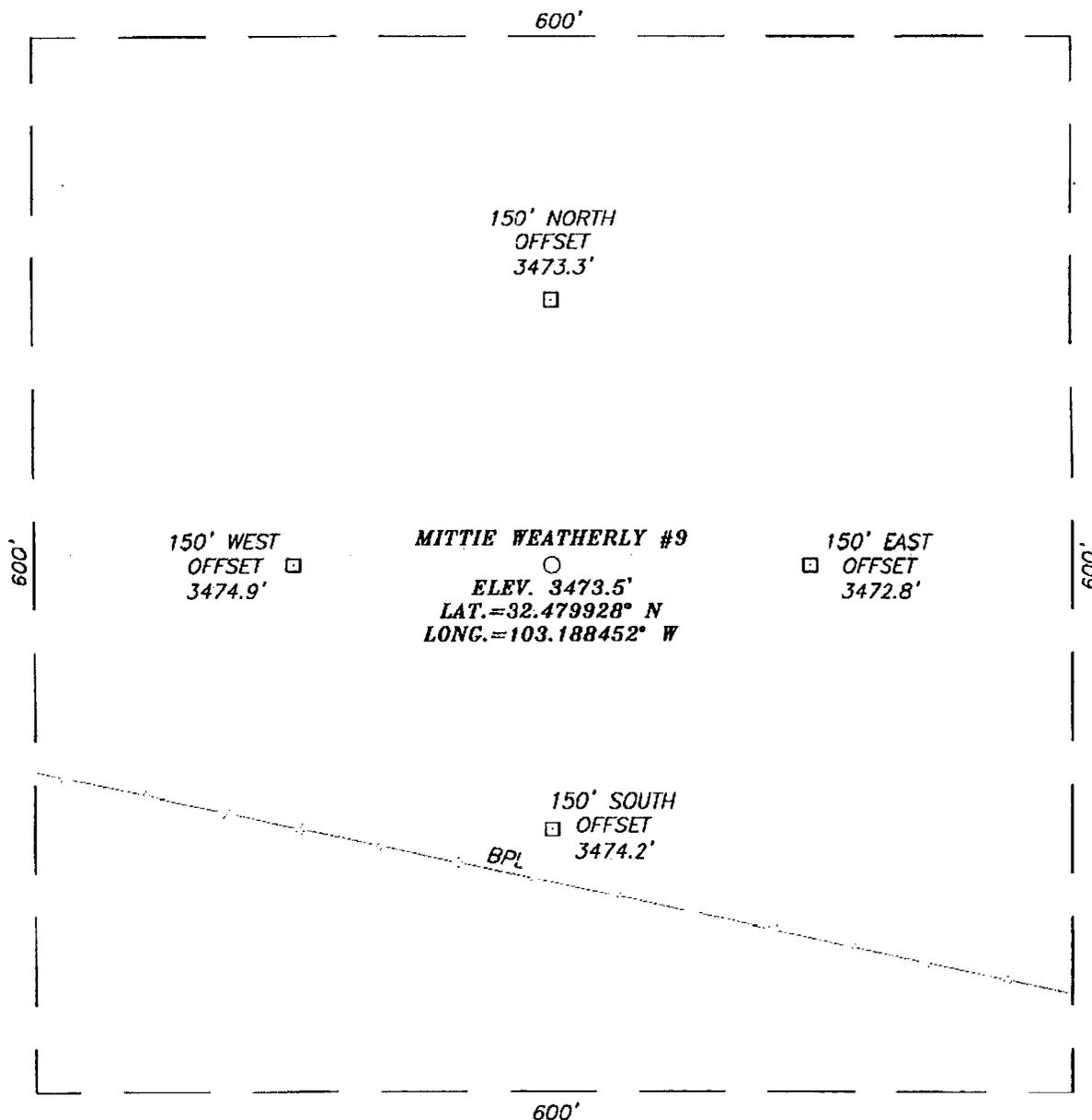
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |

| | | | |
|-----------------|-----------------|--------------------|-----------|
| 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

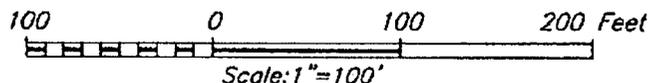
| | | |
|--|---|---|
| | <p>GEODETTIC COORDINATES NAD 27 NME</p> <p>Y=540205.2 N X=853056.2 E</p> <p>LAT.=32.479928° N LONG.=103.188452° W</p> | <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization 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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> |
| | | <p>SURVEYOR CERTIFICATION</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 style="text-align: center;"> </p> <p>Date Surveyed 10/18/07 Signature & Seal of Professional Surveyor DSS</p> <p>Certificate No. GARY C. EIDSON 12841 RONALD J. EIDSON 3239</p> |

SECTION 17, TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF N. TURNER RD.
 (CO. RD. #E-33) AND CURRY RD. (CO. RD.
 #E-36) GO NORTH ON TURNER RD. APPROX.
 0.4 MILES. TURN LEFT AND GO WEST APPROX.
 0.2 MILES. TURN RIGHT AND GO NORTH
 APPROX. 0.2 MILES. TURN LEFT AND GO WEST
 APPROX. 0.4 MILES THIS LOCATION IS APPROX.
 300 FEET SOUTH.



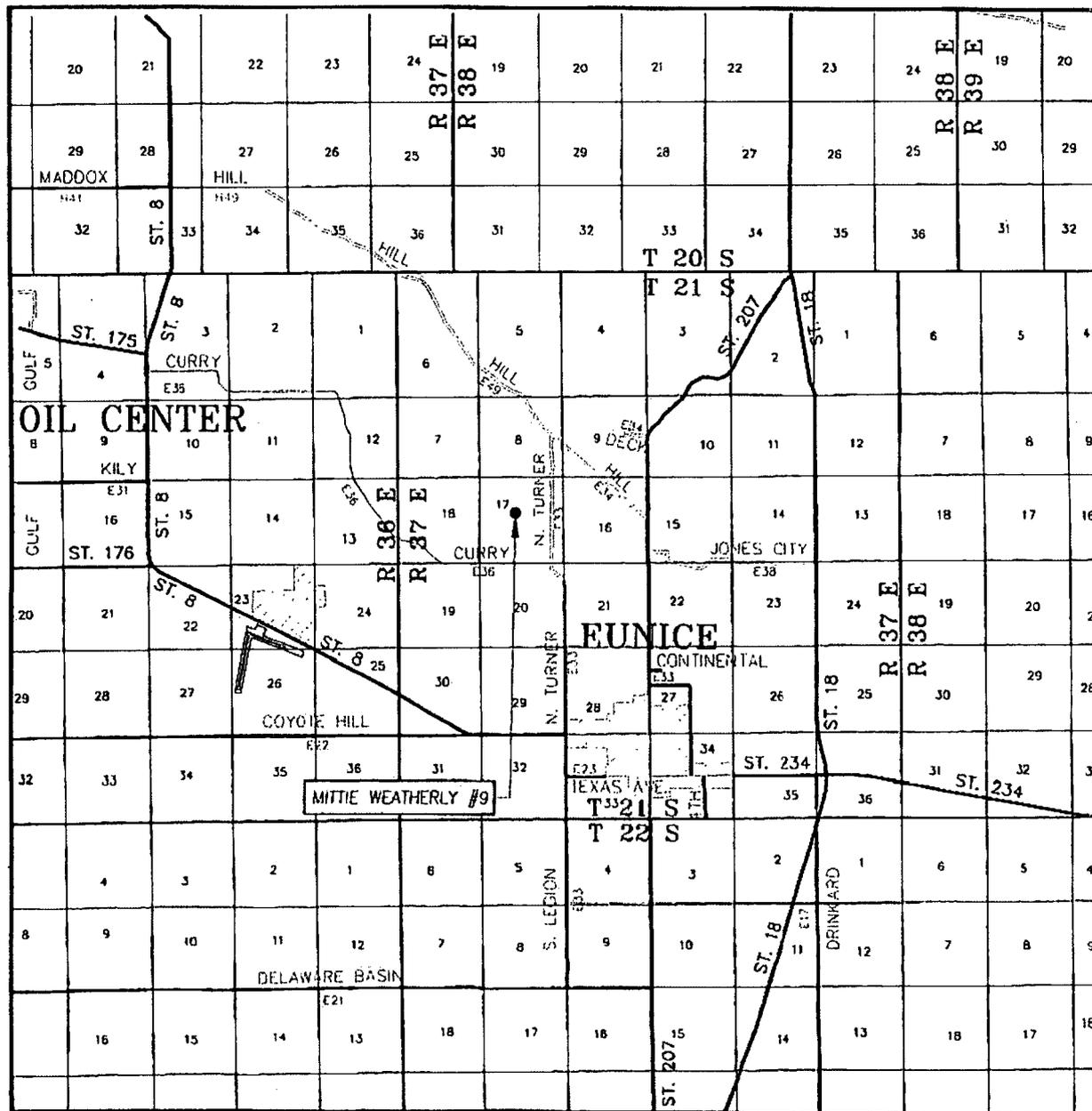
CHEVRON USA INC.

MITTIE WEATHERLY #9 WELL
 LOCATED 2235 FEET FROM THE NORTH LINE
 AND 1470 FEET FROM THE WEST LINE OF SECTION 17,
 TOWNSHIP 21 SOUTH, RANGE 37 EAST, N.M.P.M.,
 LEA COUNTY, NEW MEXICO.

PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 393-3117

| | |
|-------------------------|----------------------|
| Survey Date: 10/10/07 | Sheet: 1 of 1 Sheets |
| W.O. Number: 07.11.1323 | Dr By: DSS |
| Date: 10/17/07 | Rev 1: N/A |
| Disk: . | 07111323 |
| | Scale: 1"=100' |

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 17 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 2235' FNL & 1470' FWL

ELEVATION 3473'

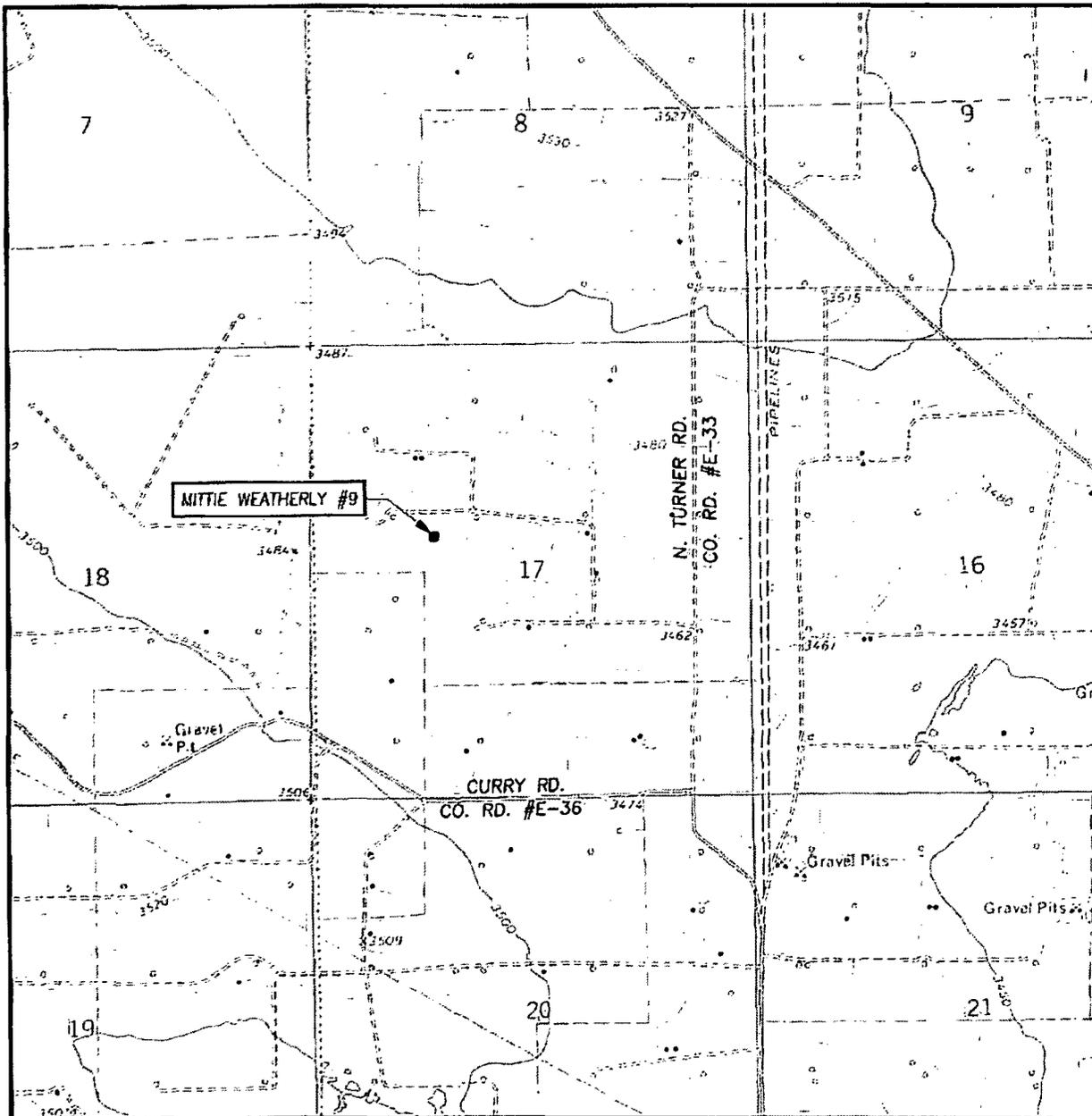
OPERATOR CHEVRON USA INC.

LEASE MITTIE WEATHERLY



PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 17 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

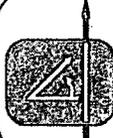
DESCRIPTION 2235' FNL & 1470' FWL

ELEVATION 3473'

OPERATOR CHEVRON USA INC.

LEASE MITTIE WEATHERLY

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 30-025- | | ² Pool Code 50350 | | ³ Pool Name Penrose Skelly; Grayburg | |
| ⁴ Property Code | | ⁵ Property Name Mittie Weatherly | | | ⁶ Well Number 9 |
| ⁷ OGRID No. 4323 | | ⁸ Operator Name Chevron U.S.A., Inc. | | | ⁹ Elevation 3473' |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| F | 17 | 21S | 37E | | 2235 | North | 1470 | West | Lea |

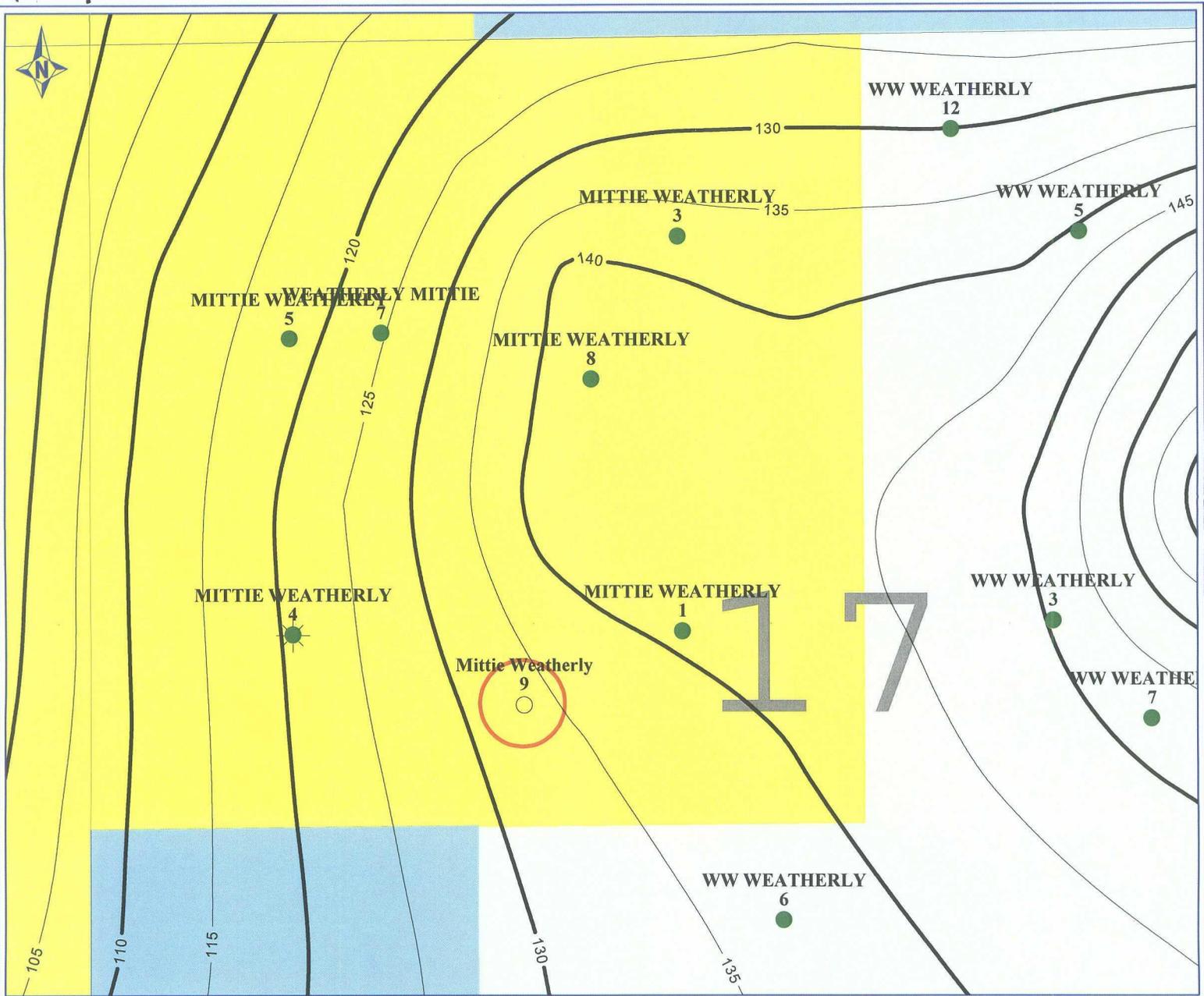
¹¹ Bottom Hole Location If Different From Surface

| 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

| | |
|-----------|--|
| <p>16</p> | <p>17</p> <p>OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p><i>Casey R. Mobley</i></p> <p>Signature _____ Casey R. Mobley</p> <p>Printed Name _____ Geologist</p> <p>Title _____ June 2, 2008</p> |
| | <p>18</p> <p>SURVEYOR CERTIFICATION</p> <p><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></p> <p>Signature and Seal of Professional Surveyor: _____</p> <p>Certificate Number _____</p> |



PETRA 5/28/2008 10:32:00 AM



Chevron U.S.A. Inc.

EXHIBIT 4

PENROSE-SKELLY FIELD MITTIE WEATHERLY #9

Sec 17, T21S-R37E, Lea Co., New Mexico

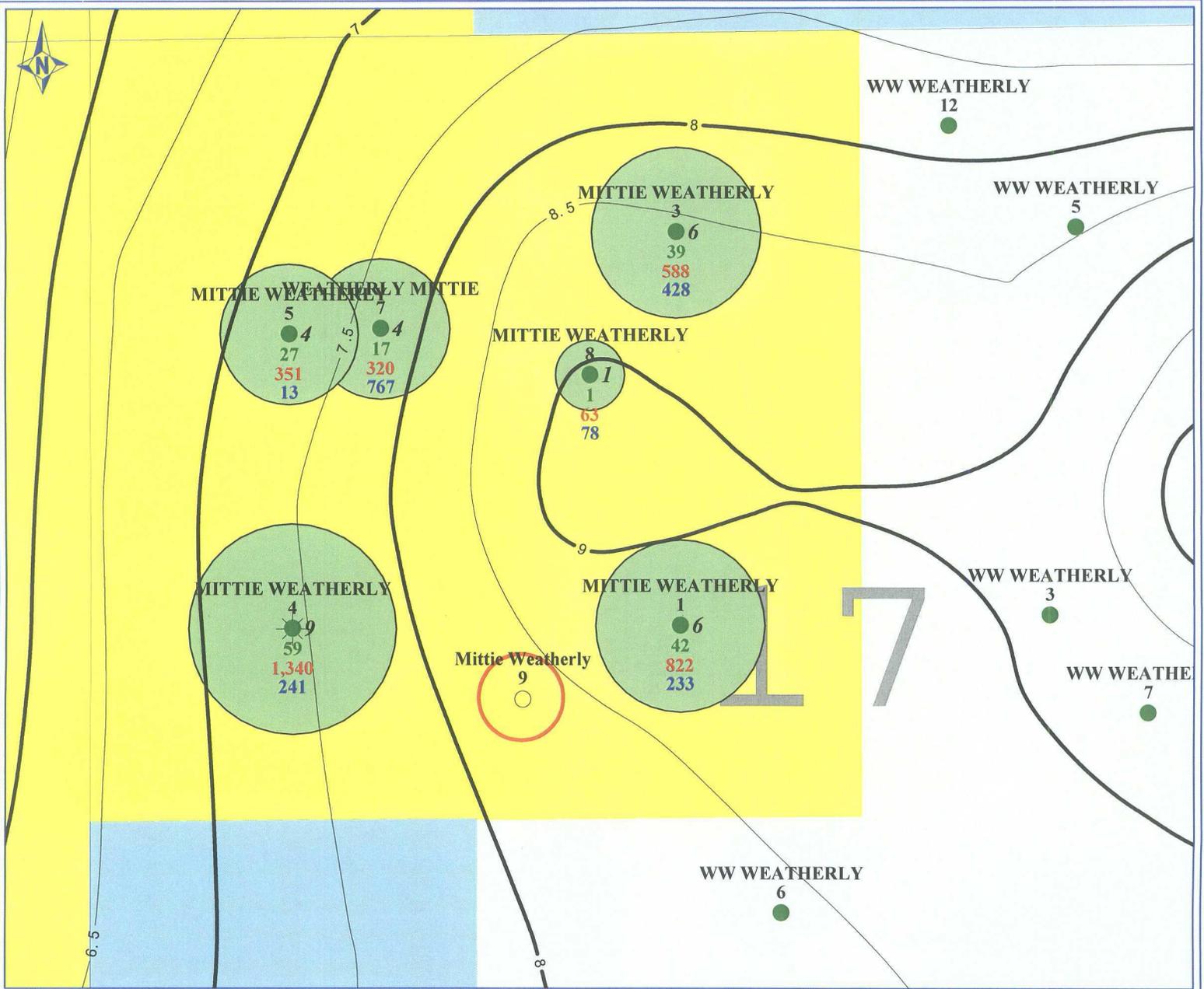
Grayburg Net Pay CI=5' [GR<40, Por>6%]

POSTED WELL DATA

Well Name
Well Number



May 28, 2008



PETRA 5/28/2008 2:04:23 PM



Chevron U.S.A. Inc.

EXHIBIT 5

PENROSE-SKELLY FIELD MITTIE WEATHERLY #9

Sec 17, 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)



May 28, 2008