DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-101
Revised February 10,199
Instructions on bac
Submit to Appropriate District Offic
State Lease - 6 Copie
Fee Lease - 5 Copie
☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1 Operator Name and Address	2 OGRID Number
CHEVRON USA INC 15 SMITH ROAD, MIDLAND, TX 79705	4323
	3 API Number 30-025-06657

4 Property Code	5 Property Name	6 Well No.
26683	H.T. MATTERN (NCT-C)	1

7 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	18	21-S	37-E		1980'	SOUTH	660'	EAST	LEA

8 Proposed 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

9 Proposed Pool 1	10 Proposed Pool 2
PENROSE SKELLY GRAYBURG	

11 Work Type Code	12 WellType Code	13 Rotary or C.T.	14 Lease Type Code	15 Ground Level Elevation
D	O	ROTARY	P	3493' DF
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	3967'	GRAYBURG		6/15/2003

21 Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
NO CHANGE					

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zoneand proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

CHEVRON U.S.A. INTENDS TO DEEPEN THE SUBJECT WELL IN THE GRAYBURG FORMATION AND FRAC STIMULATE.

THE SUBJECT WELL IS CURRENTLY A TA'D PRODUCER & THE PROPOSED WORK SHOULD RETURN THE WELL TO PRODUCTION.

THE INTENDED PROCEDURE AND WELLBORE DIAGRAMS IS ATTACHED FOR YOUR APPROVAL.

Permit Expires 1 Year From Approval
Date Unless ~~Drilling~~ Underway
Deepen

RECEIVED
JUN 2003
Hobbs OCD

23 I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature Denise Leake
Printed Name Denise Leake
Title Regulatory Specialist
Date 6/3/2003 Telephone 915-687-7375

OIL CONSERVATION DIVISION

Approved By:
Title: PETROLEUM ENGINEER
Approval Date: JUN 06 2003 Expiration Date:
Conditions of Approval:
Attached ☐

DeSoto/Nichols 3-94 ver 1.10

H. T. Mattern (NCT-C) # 1
Penrose Skelly Field
T21S, R37E, Section 18
Job: Drill Well Deeper In Grayburg Formation And Frac Stimulate

Procedure:

1. Displace flowline with fresh water. Have field specialist close valve at header. Pressure line according to the type of line. AGU, EMSU, and EMSUB buried fiberglass lines will be tested with 300 psi. All polypipe(SDR7 and SDR11) will be tested w/100 psi. All steel lines will be tested w/500 psi. If a leak is found, contact Larry Williams for repair/replacement. If test is good, bleed off pressure and **open valve** at header. Document this process in the morning report.

2. MI & RU pulling unit. Bleed pressure from well, if any. Pump down csg with 8.6 PPG cut brine water, if necessary to kill well. Remove WH. Install BOP's and test to 1000 psi. **Note: Minimize water pumped into well since deepening will be performed using foam due to low pressure Upper Grayburg open-hole interval.**

3. PU 5 3/8" MT bit & DC's and GIH on 2 7/8" work string to PBTD at 3368'. MI & RU foam unit(s). LD and drill out cement and CIBP in 6" csg. LD and cleanout to 3810' using foam. POH with 2 7/8" work string, DC's and MT bit. LD MT bit. PU 5 3/8" sealed bearing bit and GIH on 2 7/8" drill string to 3810'. LD and drill well deeper to 3967' using foam. Circulate well clean from 3967'. POH with 5 3/8" bit and drill string. LD bit. **Note: Geology will be monitoring drilling penetration rate while deepening well.**

4. PU & GIH 6" Lok-Set pkr and On-Off tool w/ 2.25" "F" profile on 2 7/8" EUE 8R L-80 work string. Set pkr at approximately 3450'. GIH and conduct swab test of interval 3460-3967'. Report oil cut, recovered fluid volumes, pressures, and/or swabbing fluid levels. Obtain 1 qt. sample of formation fluids and deliver to Cardinal Laboratories in Hobbs for analysis. Pressure annulus to 300 psi and maintain during acid job to monitor for communication. **Note: Do not exceed 300 psi csg pressure due to cmt sqzd csg leak at 2492'.**

5. MI & RU DS Services. Acidize open-hole from 3460-3967' with 6,000 gals antisludge 15% HCl acid *** at a maximum rate of **6 BPM** and a maximum surface pressure of **3500 psi**. Pump job as follows:

   Pump 1,500 gals acid at 6 BPM
   Pump 500 gals gelled 10 PPG brine containing 2000 lbs GRS at 6 BPM
   Pump 1,500 gals acid at 6 BPM
   Pump 500 gals gelled 10 PPG brine containing 1000 lbs GRS at 6 BPM
   Pump 1,500 gals acid at 6 BPM

Pump 500 gals gelled 10 PPG brine containing 1000 lbs GRS at 6 BPM
Pump 1,500 gals acid at 6 BPM

Displace acid with 8.6 PPG cut brine water -- do not overdisplace. Record ISIP, 5, 10, & 15 minute SIP's. RD and release DS Services. **Note: It is not necessary to pickle tbg due to the low BHP.**

*** Acid system is to contain:	1 GPT A264	Corrosion Inhibitor
	8 GPT L63	Iron Control Agent
	2 PPT A179	Iron Control Aid
	20 GPT U66	Mutual Solvent
	2 GPT W53	Non-Emulsifier

6. Open well and flow/swab back spent treatment fluids. Recover 100% of spent acid and load before SI well for the night. Report oil cut, recovered fluid volumes, pressures, and/or swabbing fluid levels.

If well productivity is unsatisfactory, Engineering will furnish additional procedures to install cemented liner, perforate, acidize, and frac stimulate.

7. Open well. Pump down tbg with 8.6 PPG cut brine water to kill well, if necessary. Release pkr. POH with 2 7/8" work string and packer. LD pkr.

8. PU 5 3/8" MT bit and GIH on 2 7/8" work string to TD at 3967'. If fill is encountered, MI & RU foam unit(s) and cleanout to 3967' using foam. POH with 2 7/8" work string and MT bit. LD work string and MT bit.

9. PU and GIH w/ Centrilift sub pump assembly, 2 7/8" x 10' tbg sub, SN, and 121 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Suspend tbg with bottom of sub pump assembly at approximately 3800'.

10. Remove BOP's and install WH. RD & release pulling unit.

11. Turn well over to production. Report producing rates, choke sizes, flowing pressures and/or fluid levels.

AMH
5/22/2003

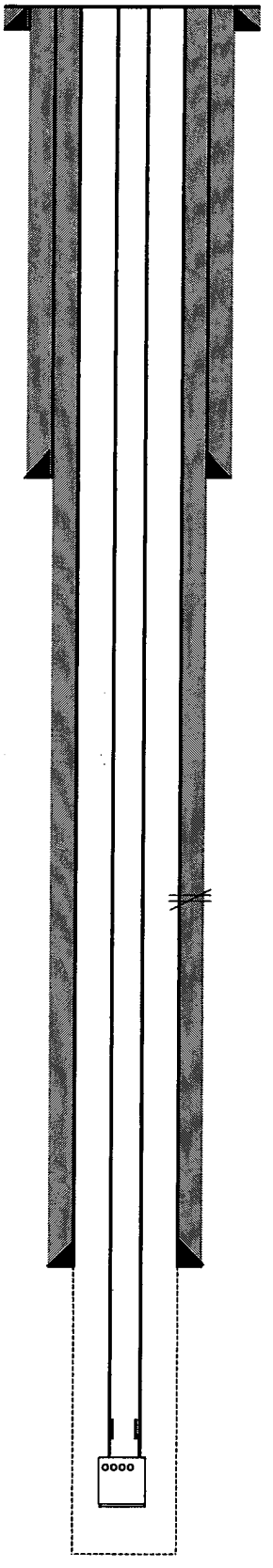
Well: **H. T. Mattern (NCT-C) #1** Field: **Penrose Skelly** Reservoir: **Grayburg**

Status: **PR**

Location:
1980' FSL & 660' FEL
Section: 18
Township: 21S
Range: 37E Unit: I
County: Lea State: NM

Elevations:
GL:
KB:
DF: 3493'

Proposed Wellbore Diagram



Well ID Info:
Chevno: FA7761
API No: 30-025-06657
L5/L6: UCU491800
Spud Date: 8/13/37
Compl. Date: 10/16/37

Surface Casing: 13 3/8", 27#
Set: @ 33' w/40 sx cmt
Hole size: 17 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Intermediate Casing: 8 5/8", 32#
Set: @ 1261' w/800 sx cmt
Hole size: 11"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Casing leak @ 2492' squeezed w/ 20 sx cmt f/ 2377-2527'

Production Casing: 6", 16#
Set: @ 3460' w/150 sx cmt
Hole size: 8 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Tubing Detail:
Centrilift sub pump @ 3750'
2-7/8" x 10' tbg sub
SN @ 3740'
121 jts 2-7/8" EUE J-55 8rd tbg

Grayburg OH interval f/3460-3967'

PBTD: 3967'
TD: 3967'

Updated: 5/22/03 **By:** A. M. Howell

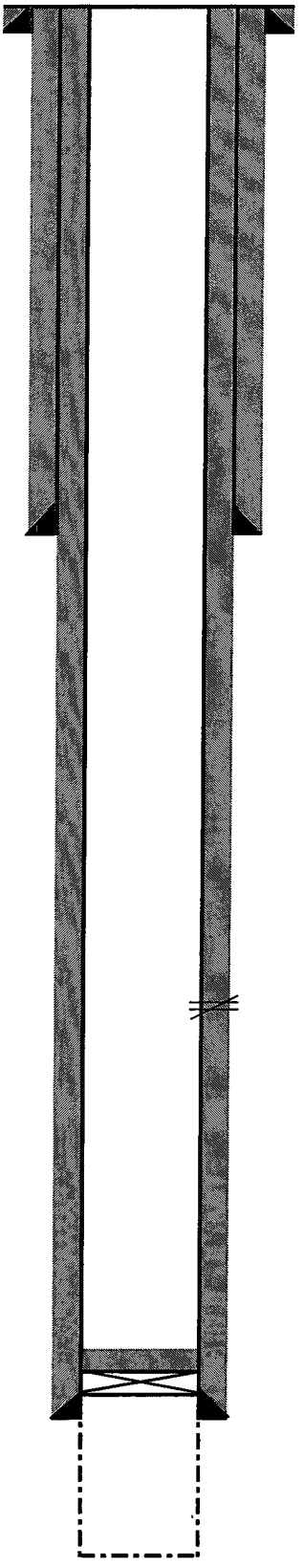
Well: **H. T. Mattern (NCT-C) #1** Field: **Penrose Skelly** Reservoir: **Grayburg**

Status: **TA'd**

Location:
1980' FSL & 660' FEL
Section: 18
Township: 21S
Range: 37E Unit: I
County: Lea State: NM

Elevations:
GL:
KB:
DF: 3493'

Current
Wellbore Diagram



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TOC By: Circulated

Intermediate Casing: 8 5/8", 32#
Set: @ 1261' w/800 sx cmt
Hole size: 11"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Casing leak @ 2492' squeezed
w/ 20 sx cmt f/ 2377-2527'

CIBP set @ 3403'
w/35' cmt on top

PBTD:
TD: 3800'

Production Casing: 6", 16#
Set: @ 3460' w/150 sx cmt
Hole size: 8 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

OH interval f/3460-3800'

Updated: 4/8/03 **By:** K. M. Jackson

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Energy, Minerals and Natural Resources Department

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Form C-102
Revised February 10,199
Instructions on bac
Submit to Appropriate District Offic
State Lease - 4 Copie
Fee Lease - 3 Copie
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-06657	50350	PENROSE SKELLY GRAYBURG

4 Property Code	5 Property Name	6 Well No.
2683	H.T. MATTERN (NCT-C)	1

7 OGRID Number	8 Operator Name	9 Elevation
4323	CHEVRON USA INC	3493' DF

10 Surface Location

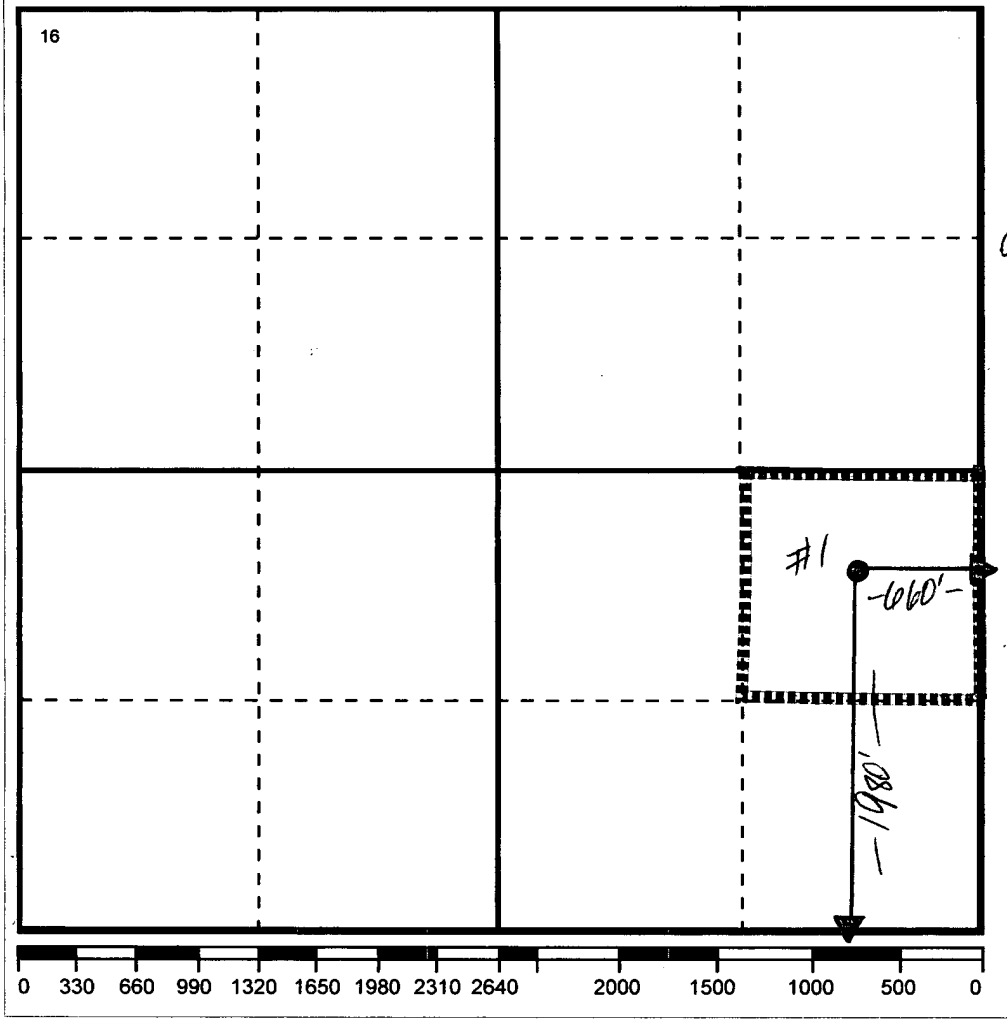
Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
I	18	21-S	37-E		1980'	SOUTH	660'	EAST	LEA

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 Acre	13 Joint or Infill	14 Consolidation Code	15 Order No.
40	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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature: Denise Leake

Printed Name: Denise Leake

Positio: Regulatory Specialist

Date: 6/3/2003

18 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 knowledge and belief.

Date Surveyed

Signature & Seal of Professional Surveyor

Certificate No.

DeSoto/Nichols 3/94 ver 1.10