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 30-025-25111

4 Property Code	5 Property Name	6 Well No.
26533	H. T. MATTERN NCT-C	7

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
J	18	21-S	37-E		2130'	SOUTH	1980'	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
P	O	ROTARY	P	3514' KB
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	6785'	GRAYBURG		12/2/2002

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. INC. INTENDS TO RECOMPLETE THE SUBJECT WELL TO THE GRAYBURG POOL. THE INTENDED PROCEDURE, CURRENT WELLBORE DIAGRAM, AND PROPOSED WELLBORE DIAGRAM IS ATTACHED FOR YOUR APPROVAL.

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

Plug-Back

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 11/20/2002 Telephone 915-687-7375

OIL CONSERVATION DIVISION

Approved By: ORIGINAL SIGNED BY CHRIS WILLIAMS OC DISTRICT SUPERVISOR/GENERAL MANAGER

Title:

Approval Date: DEC 3 2002 Expiration Date:

Conditions of Approval:
Attached ☐

DeSoto/Nichols 3-94 ver 1.10

H. T. Mattern C # 7
Penrose Skelly Field
T21S, R37E, Section 18
Job: PB To Grayburg Formation, Acidize, And Frac

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 2% KCl water, if necessary to kill well. Remove WH. Install BOP's and test to 1000 psi.

3. PU and GIH with 4 ¾" MT bit and 2 7/8" work string to 5406'. Reverse circulate well clean from 5406' using 2 % KCl water. POH with work string and bit. LD bit.

4. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/Neutron/CCL log from 5200' up to 2600'. POH. **Note: Fax log to Robert Martin ((915) 687-7905) for correlation and picking perfs.** GIH and conduct GR/CBL/CCL log from 4300' up to 2300'. POH. Inspect logs for good cement bond from approximately 4300' up to 3500'. If bond does not appear to be good across proposed completion interval, discuss with Engineering before proceeding. Cmt squeeze as necessary to obtain good cmt across completion interval. GIH with 3 1/8" DP slick casing gun and perforate from 3846-50', 3882-86', 3894-98', 3916-22', 3934-38', 3946-50', 3955-58', and 3964-68' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit. **Note: Exact intervals to be perforated may be adjusted after conducting logs.**

5. PU and GIH w/ 5 ½" PPI pkr (with 10' element spacing) and SCV on 2 7/8" work string to approximately 3800'. Test tbg to 5500 psi while GIH.

6. MI & RU DS Services. Acidize perfs 3846-3968' with 2,000 gals anti-sludge 15% HCl acid * at a maximum rate **as shown below** and a maximum surface pressure of **4500 psi**. Spot acid to bottom of tbg at beginning of each stage. Pump job as follows:

Interval	Amt. Acid	Max Rate	PPI Setting
3964-68'	250 gals	½ BPM	3960-70'
3955-58'	250 gals	½ BPM	3952-62'
3946-50'	250 gals	½ BPM	3942-52'

3934-38'	250 gals	½ BPM	3930-40'
3916-22'	250 gals	½ BPM	3915-25'
3894-98'	250 gals	½ BPM	3890-3900'
3882-86'	250 gals	½ BPM	3880-90'
3846-50'	250 gals	½ BPM	3842-52'

Displace acid with 2% KCl water -- do not overdisplace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services. **Note: Pickle tubing in 1 run of 500 gals acid, prior to acidizing perfs. Pickle acid is to contain only 1/2 gal A264 and 1 gal W53. Also, if communication occurs during treatment of any interval, monitor casing pressure and attempt to complete stage w/o exceeding 1000 psi csg pressure. If cannot, then move PPI to next setting depth and combine treatment volumes of the intervals.**

* 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

7. Release PPI pkr and PUH to approximately 3800'. Swab back all intervals together. Recover 100% of treatment and load volumes before shutting well in for night, if possible. Report recovered fluid volumes, pressures, and/or swabbing fluid levels. **Note: Selectively swab perfs as directed by Engineering if excessive water is produced.**

8. Open well. Release PPI pkr. POH with tbg and PPI packer. LD 2 7/8" work string and PPI tool.

9. PU and GIH w/ 5 ½" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 118 jts. of 3 ½" EUE 8R L-80 work string, testing to 7500 psi. Set pkr at approximately 3700'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication.

10. MI & RU DS Services. Frac well down 3 ½" tubing at **42 BPM** with 68,000 gals of YF135, 112,000 lbs. 16/30 mesh Jordan Sand, and 48,000 lbs **resin-coated** 16/30 mesh CR4000 proppant. Observe a maximum surface treating pressure of **7000 psi**. Pump job as follows:

    Pump 28,000 gals YF135 pad containing 5 GPT J451 Fluid Loss Additive
    Pump 4,000 gals YF135 containing 1 PPG 16/30 mesh Jordan Sand
    Pump 4,000 gals YF135 containing 2 PPG 16/30 mesh Jordan Sand
    Pump 6,000 gals YF135 containing 3 PPG 16/30 mesh Jordan Sand
    Pump 8,000 gals YF135 containing 4 PPG 16/30 mesh Jordan Sand
    Pump 10,000 gals YF135 containing 5 PPG 16/30 mesh Jordan Sand
    Pump 8,000 gals YF135 containing 6 PPG **resin-coated** 16/30 mesh CR4000 proppant

Flush to 3700' with 1,351 gals WF135. **Do not overflush.** Shut well in. Record ISIP, 5, 10, and 15 minute SI tbg pressures. SWI. RD & Release DS Services. **Leave well SI overnight.**

11. Open well and swab/backflow until well cleans up with no frac sand in returns and a stabilized flow rate is obtained. Report recovered fluid volumes, choke sizes and flowing pressures. SWI.

12. If well flows, GIH and set tbg plug in "F" profile. Release on-off tool and POH with 3 ½" work string and top half of on-off tool. Lay down work string. PU and GIH w/ top half of on-off tool on 2 7/8" tbg, testing to 5000 psi. Displace annulus with inhibited packer fluid. Re-engage on-off tool. Remove BOP's and install flanged WH rated at 3000 psi WP. Pressure test tbg and WH to 3000 psi. Pressure test casing to 500 psi. GIH and swab fluid level in tubing down until differential across tbg plug is balanced. GIH and retrieve tbg plug from "F" nipple. Swab well if necessary to initiate flow. RD & release pulling unit.

13. If well does not flow, release pkr and POH with 3 ½" work string. Lay down work string and pkr.

14. PU and GIH w/ BP mud anchor jt of 2 7/8" tbg, 2 7/8" x 4' perforated sub, SN, 8 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 121 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3750' with EOT at 4035' and SN at 4000'.

15. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release pulling unit.

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

AMH
11/20/2002

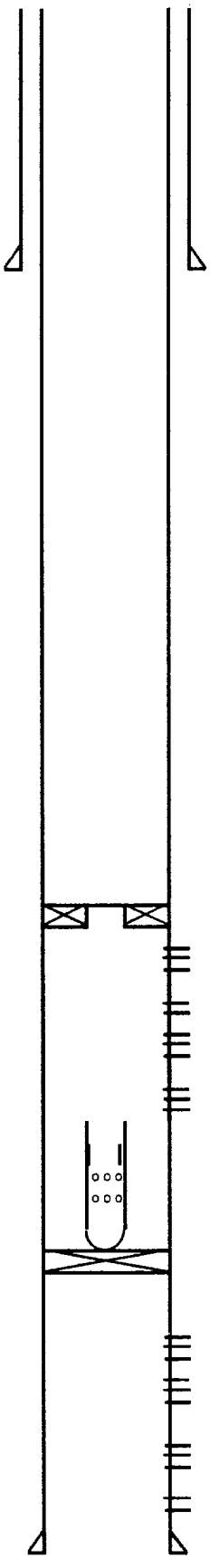
Well: **H. T. Matterr :T-C) # 7** Field: **Blinebry** Reserv **linebry**

Location:
2130' FSL & 1980' FEL
Section: 18
Township: 21S
Range: 37E
County: Lea State: NM

Elevations:
GL: 3502'
KB: 3514'
DF: 3513'

Current Wellbore Diagram

Well ID Info:
Chevno: EO6537
API No: 30-025-25111
L5/L6: U466500
Spud Date: 9/9/75
Compl. Date: 10/20/75



Surface Csg: 8 5/8", 24#, K-55
Set: @ 1295' w/ 500 sks
Hole Size: 11"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Tbg Detail:
None - TA

CICR @ 5506'
(100' cmt on top)

Perfs:	**Status:**
5556-58'	Blinebry - Cmt Sqzd
5594-96'	Blinebry - Cmt Sqzd
5648-50'	Blinebry - Cmt Sqzd
5683-85'	Blinebry - Cmt Sqzd
5733-35'	Blinebry - Cmt Sqzd
5776-78'	Blinebry - Cmt Sqzd
5848-50'	Blinebry - Cmt Sqzd

Fish @ 5850'
(15' cut jt of 2 3/8" tbg, 3 jts. 2 3/8" tbg, SN, 2 3/8" perf tbg sub, BPMA jt of 2 3/8" tbg, with 4 - 3/4" rods and pump inside)

CIBP @ 6400'
(no cmt on top)

6520-22'	Drinkard - Below CIBP
6554-56'	Drinkard - Below CIBP
6586-88'	Drinkard - Below CIBP
6656-58'	Drinkard - Below CIBP
6673-75'	Drinkard - Below CIBP
6691-93'	Drinkard - Below CIBP
6705-07'	Drinkard - Below CIBP

COTD: 5406'
PBTD: 5406'
TD: 6785'

Prod. Csg: 5 1/2", 15.5# K-55
Set: @ 6773' w/ 650 sks
Hole Size: 7 7/8"
Circ: No **TOC:** 2350'
TOC By: Temperature Survey

Updated: 11/18/2002 **By:** A. M. Howell

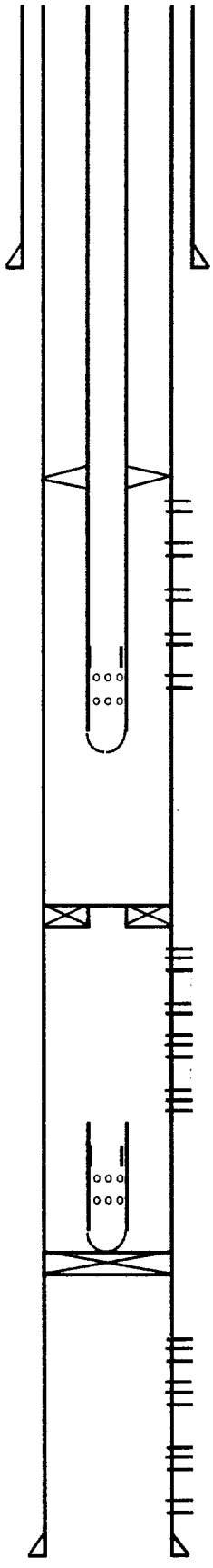
Well: **H. T. Mattern (NCT-C) # 7** Field: **Penrose Skelly** Reserv: Grayburg

Location:
2130' FSL & 1980' FEL
Section: 18
Township: 21S
Range: 37E
County: Lea State: NM

Elevations:
GL: 3502'
KB: 3514'
DF: 3513'

Proposed
Wellbore Diagram

Well ID Info:
Chevno: EO6537
API No: 30-025-25111
L5/L6: U491800
Spud Date: 9/9/75
Compl. Date: 10/20/75



Surface Csg: 8 5/8", 24#, K-55
Set: @ 1295' w/ 500 sks
Hole Size: 11"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Tbg Detail:
BP @ 4035'
1 jt. 2 7/8" tbg
2 7/8" x 4' perf sub
SN @ 4000'
8 jts. 2 7/8" EUE 8R J-55 tbg
TAC @ 3750'
121 jts. 2 7/8" EUE 8R J-55 tbg

Perfs:	Status:
3846-50'	Grayburg - Open
3882-86'	Grayburg - Open
3894-98'	Grayburg - Open
3916-22'	Grayburg - Open
3934-38'	Grayburg - Open
3946-50'	Grayburg - Open
3955-58'	Grayburg - Open
3964-68'	Grayburg - Open

CICR @ 5506'
(100' cmt on top)

5556-58'	Blinebry - Cmt Sqzd
5594-96'	Blinebry - Cmt Sqzd
5648-50'	Blinebry - Cmt Sqzd
5683-85'	Blinebry - Cmt Sqzd
5733-35'	Blinebry - Cmt Sqzd
5776-78'	Blinebry - Cmt Sqzd
5848-50'	Blinebry - Cmt Sqzd

Fish @ 5850'
(15' cut jt of 2 3/8" tbg, 3 jts. 2 3/8" tbg, SN, 2 3/8" perf tbg sub, BPMA jt of 2 3/8" tbg, with 4 - 3/4" rods and pump inside)

CIBP @ 6400'
(no cmt on top)

6520-22'	Drinkard - Below CIBP
6554-56'	Drinkard - Below CIBP
6586-88'	Drinkard - Below CIBP
6656-58'	Drinkard - Below CIBP
6673-75'	Drinkard - Below CIBP
6691-93'	Drinkard - Below CIBP
6705-07'	Drinkard - Below CIBP

COTD: 5406'
PBTD: 5406'
TD: 6785'

Prod. Csg: 5 1/2", 15.5# K-55
Set: @ 6773' w/ 650 sks
Hole Size: 7 7/8"
Circ: No **TOC:** 2350'
TOC By: Temperature Survey

Updated: 11/18/2002 **By:** A. M. Howell

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 Der 'ment

OIL CONSERVATION DIVISION

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

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
30-025-25111	50350	PENROSE SKELLY GRAYBURG

4 Property Code	5 Property Name	6 Well No.
26573	H. T. MATTERN NCT-C	7

7 OGRID Number	8 Operator Name	9 Elevation
4323	CHEVRON USA INC	3514' KB

10 Surface Location

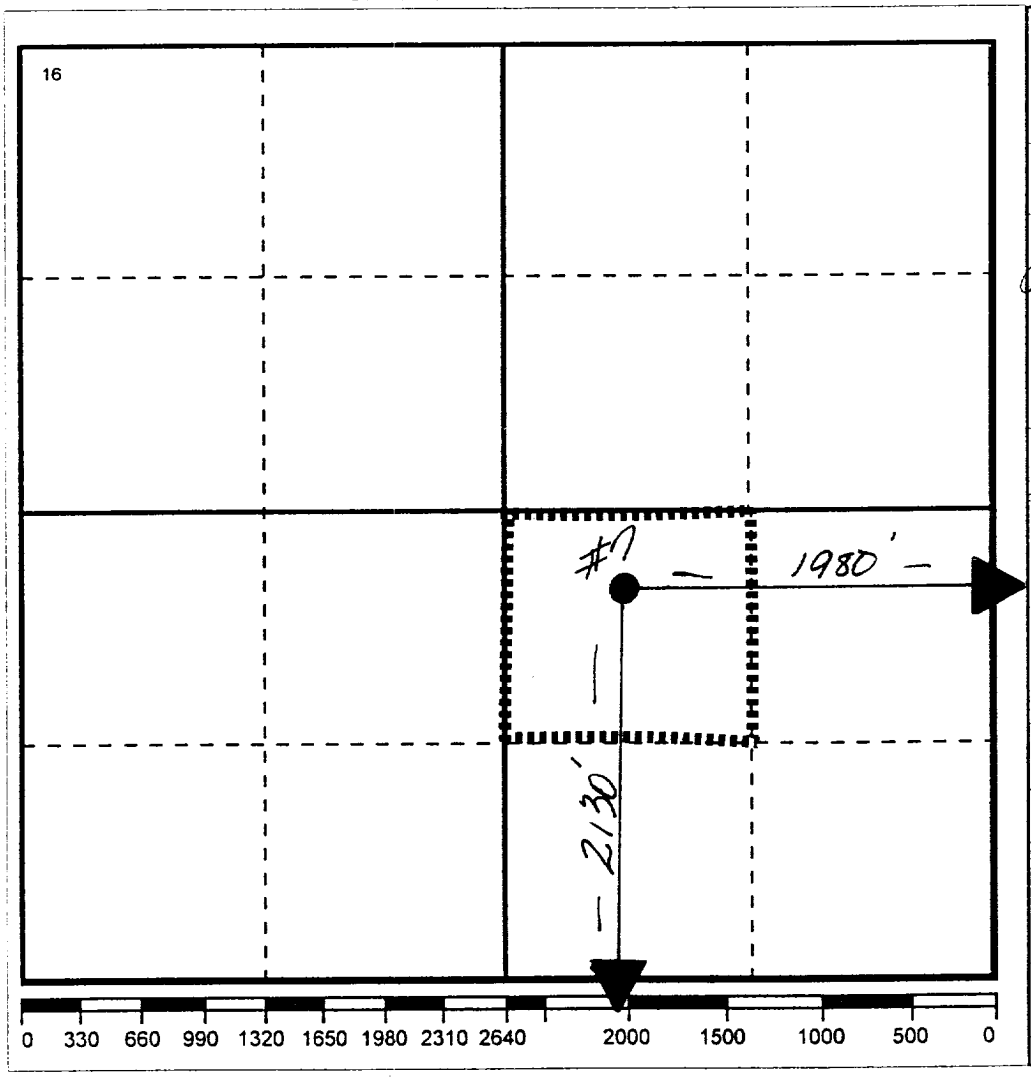
Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
J	18	21-S	37-E		2130'	SOUTH	1980'	EAST	LEA

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
11/20/2002

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