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 30-025-06687

4 Property Code	5 Property Name	6 Well No.
2634	C. L. HARDY	5

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
L	20	21-S	37-E		1980'	SOUTH	660'	WEST	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	3501' GL
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	6670'	GRAYBURG		3/1/2003

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 RECOMPLETE THE SUBJECT WELL TO THE GRAYBURG FORMATION. THE INTENDED PROCEDURE AND WELL BORE 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 2/17/2003 | Telephone 915-687-7375

OIL CONSERVATION DIVISION

Approved By: ORIGINAL SIGNED BY PAUL F. KAUTZ

Title: PETROLEUM ENGINEER

Approval Date: FEB 20 2003 | Expiration Date:

Conditions of Approval: Attached

DeSoto/Nichols 3-94 ver 1.10

C. L. Hardy # 5
Penrose Skelly Field
T21S, R37E, Section 20
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. POH with rods and pump. Remove WH. Install BOP's and test to 1000 psi. Release pkr. POH with 2 3/8" tbg string.

3. PU and GIH with 6 ¼" MT bit and 2 7/8" work string to 6500'. POH with work string and bit. LD bit.

4. PU and GIH with 7" tbg-set CIBP to 6450'. Set CIBP at 6450'. Dump 35' cmt on top of CIBP. PUH to 6400'. Reverse circulate well clean from 6400' using 2 % KCl water. POH with 2 7/8" work string. PU and GIH with 7" tbg-set CIBP to 5550'. Set CIBP at 5550'. Dump 35' cmt on top of CIBP. PUH to 5500'. Reverse circulate well clean from 5500' using 2 % KCl water. Pressure test csg and CIBP to 500 psi. POH with 2 7/8" work string.

5. 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 3200'. POH. **Note: Fax log to Robert Martin ((915) 687-7905) for correlation and picking perfs.** GIH and conduct GR/CBL/CCL log from 5200' up to 2600'. 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 3690-93', 3699-3707', 3715-23', 3731-37', 3766-70', 3802-06', 3812-16', 3826-30', 3839-48', and 3858-66' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit. **Note: Correlate logs and run flat with Ram Guns Inc Nuclear Log conducted 11/30/74. Also, exact intervals to be perforated may be adjusted after conducting logs.**

6. PU and GIH w/ 7" PPI pkr (with 10' element spacing) and SCV on 2 7/8" work string to approximately 3690'. Test tbg to 5500 psi while GIH.

7. MI & RU DS Services. Acidize perfs 3690-3866' with 2,000 gals anti-sludge 15% HCl acid * at a maximum rate **as shown below** and a maximum surface pressure of **3500 psi**. Spot acid across perfs at beginning of each stage and let soak to lower breakdown pressure and prevent communication. Pump job as follows:

Interval	**Amt. Acid**	**Max Rate**	**PPI Setting**
3858-66'	200 gals	½ BPM	3857-67'
3839-48'	200 gals	½ BPM	3839-49'
3826-30'	200 gals	½ BPM	3823-33'
3812-16'	200 gals	½ BPM	3810-20'
3802-06'	200 gals	½ BPM	3800-10'
3766-70'	200 gals	½ BPM	3762-72'
3731-37'	200 gals	½ BPM	3730-40'
3715-23'	200 gals	½ BPM	3714-24'
3699-3707'	200 gals	½ BPM	3698-3708'
3690-93'	200 gals	½ BPM	3685-95'

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

8. Release PPI pkr and PUH to approximately 3650'. 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.**

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

10. PU and GIH w/ 7" 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 3600'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication.

11. MI & RU DS Services. Frac well down 3 ½" tubing at **40 BPM** with 68,000 gals of YF135, 130,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR4000 proppant. Observe a maximum surface treating pressure of **7400 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 3,000 gals YF135 containing 6 PPG 16/30 mesh Jordan Sand
    Pump 5,000 gals YF135 containing 6 PPG **resin-coated** 16/30 mesh CR4000 proppant

    Flush to 3600' with 1,315 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.**

12. Open well. Release pkr and POH with 3 ½" work string. Lay down work string and pkr.

13. PU 6 ¼" MT bit and GIH on 2 7/8" work string to top of sand fill in 7" csg. Establish circulation using 2% KCl water. LD and cleanout wellbore to 4100'. Reverse circulate well clean from 4100' using 2% KCl water. POH with 2 7/8" work string and bit. LD bit.

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 118 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3650', with EOT at 3935' and SN at 3900'.

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
2/13/2003

Well: **C. L. Hardy # 5** Field: **Blinebry O&G & Drinkard (DHC)** Reservoir: **Blinebry & Drinkard**

Location:
1980' FSL & 660' FWL
Section: 20
Township: 21S
Range: 37E
County: Lea State: NM

Elevations:
GL: 3501'
KB: 3512'
DF: 3511'

Current Wellbore Diagram

Well ID Info:
Refno: FA7788
API No: 30-025-06687
L5/L6: U413300 & U461900
Spud Date: 1/13/50
Compl. Date: 2/18/50

Surf. Csg: 13 3/8", 48# H-40
Set: @ 297' w/ 300 sks
Hole Size: 17 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Interm. Csg: 9 5/8", 36#, H-40
Set: @ 2800' w/ 1300 sks
Hole Size: 12 1/4"
Circ: No **TOC:** 1050'
TOC By: Temperature Survey

Tbg Detail:
BP @ 6606'
1 jt. 2 3/8" tbg
2 3/8" x 4' perf sub
SN @ 6571'
207 jts. 2 3/8" EUE 8R J-55 tbg

Perfs:	Status:
5594'	Blinebry - Open
5618'	Blinebry - Open
5660'	Blinebry - Open
5686'	Blinebry - Open
5765'	Blinebry - Open
5830'	Blinebry - Open
5935'	Blinebry - Open
6484-86'	Drinkard - Open
6514-16'	Drinkard - Open
6534-36'	Drinkard - Open
6552-54'	Drinkard - Open

CICR @ 6559'
(No cmt on top)

Prod. Csg: 7", 23#, J-55 & S-80
Set: @ 6569' w/ 700 sks
Hole Size: 8 3/4"
Circ: No **TOC:** 2350'
TOC By: Temperature Survey

6569-6670' **Drinkard - Open Hole**

COTD: 6559'
PBTD: 6559'
TD: 6670'

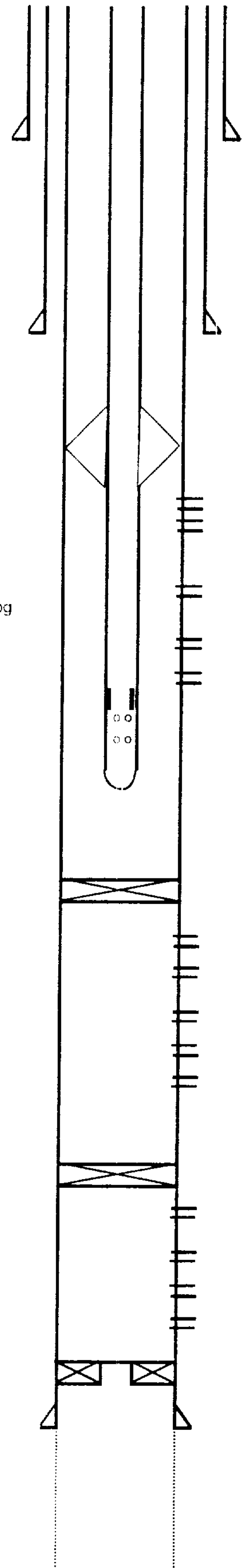
Updated: 2/12/03 **By:** A. M. Howell

Location:
1980' FSL & 660' FWL
Section: 20
Township: 21S
Range: 37E
County: Lea State: NM

Proposed
Wellbore Diagram

Well ID Info:
Refno: FA7788
API No: 30-025-06687
L5/L6: U493600
Spud Date: 1/13/50
Compl. Date: 2/18/50

Elevations:
GL: 3501'
KB: 3512'
DF: 3511'



Surf. Csg: 13 3/8", 48# H-40
Set: @ 297' w/ 300 sks
Hole Size: 17 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Interm. Csg: 9 5/8", 36#, H-40
Set: @ 2800' w/ 1300 sks
Hole Size: 12 1/4"
Circ: No **TOC:** 1050'
TOC By: Temperature Survey

Tbg Detail:
BP @ 3935'
1 jt. 2 7/8" tbg
2 7/8" x 4' perf sub
SN @ 3900'
8 jts. 2 7/8" EUE 8R J-55 tbg
TAC @ 3650'
118 jts. 2 7/8" EUE 8R J-55 tbg

Perfs:	Status
3690-93'	Grayburg - Open
3699-3707'	Grayburg - Open
3715-23'	Grayburg - Open
3731-37'	Grayburg - Open
3766-70'	Grayburg - Open
3802-06'	Grayburg - Open
3812-16'	Grayburg - Open
3826-30'	Grayburg - Open
3839-48'	Grayburg - Open
3858-66'	Grayburg - Open

CIBP @ 5550'
(35' cmt on top)

Perfs:	Status:
5594'	Blinebry - Below CIBP
5618'	Blinebry - Below CIBP
5660'	Blinebry - Below CIBP
5686'	Blinebry - Below CIBP
5765'	Blinebry - Below CIBP
5830'	Blinebry - Below CIBP
5935'	Blinebry - Below CIBP

CIBP @ 6450'
(35' cmt on top)

6484-86'	Drinkard - Below CIBP
6514-16'	Drinkard - Below CIBP
6534-36'	Drinkard - Below CIBP
6552-54'	Drinkard - Below CIBP

CICR @ 6559'
(No cmt on top)

Prod. Csg: 7", 23#, J-55 & S-80
Set: @ 6569' w/ 700 sks
Hole Size: 8 3/4"
Circ: No **TOC:** 2350'
TOC By: Temperature Survey

6569-6670' Drinkard - Open Hole

COTD: 5515
PBTD: 5515'
TD: 6670'

Updated: 2/12/03 **By:** A. M. Howell

P.O. Box 1980, Hobbs, NM 88241-1980
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State of New Mexico
Energy, Minerals and Natural Resources De' 'ment

OIL CONSERVATION DIVISION

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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
30-025-06687	50350	PENROSE SKELLY GRAYBURG

4 Property Code	5 Property Name	6 Well No.
2634	C. L. HARDY	5

7 OGRID Number	8 Operator Name	9 Elevation
4323	CHEVRON USA INC	3501' GL

10 Surface Location

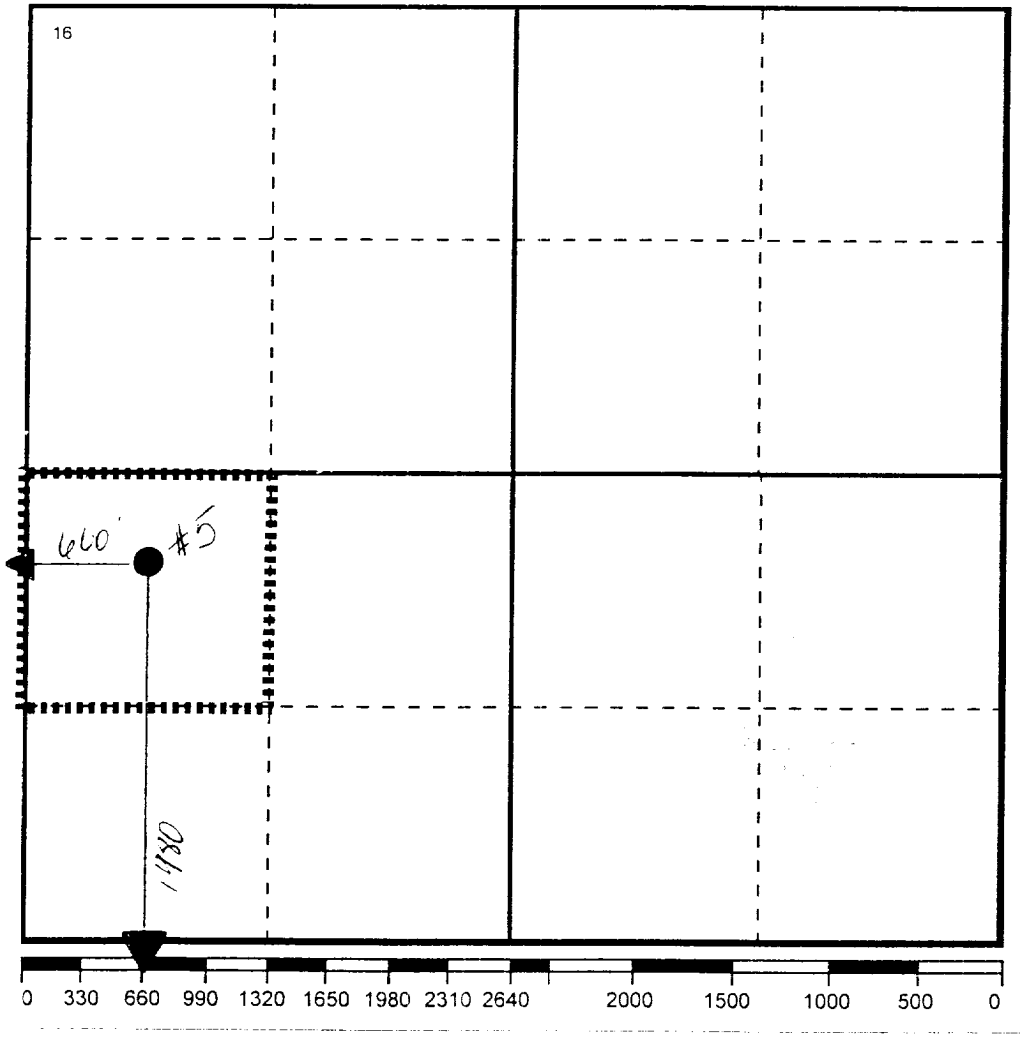
Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
L	20	21-S	37-E		1980'	SOUTH	660'	WEST	LEA

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 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
2/17/2003

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