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
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☐ 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 30-025-06620

4 Property Code	5 Property Name	6 Well No.
2669	HARRY LEONARD NCT-E	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
G	16	21-S	37-E		1980'	NORTH	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	S	3506' DF
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	6670'	GRAYBURG		4/30/2002

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. INTENDS TO RECOMPLETE THE SUBJECT WELL TO THE PENROSE SKELLY GRAYBURG FIELD. 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 J. Denise Leake

Printed Name Denise Leake

Title Regulatory Specialist

Date 4/22/2002 Telephone 915-687-7375

OIL CONSERVATION DIVISION

Approved By: ORIGINAL SIGNED BY PAUL F. KAUTZ

Title: PETROLEUM ENGINEER

Approval Date: APR 30 2002 Expiration Date:

Conditions of Approval: Attached

DeSoto/Nichols 3-94 ver 1.10

SCA

Harry Leonard (NCT-E) # 1
Penrose Skelly Field
T21S, R37E, Section 16
Job: PB To Grayburg Formation, Acidize, And Frac

Procedure:

1. MI & RU pulling unit. Bleed pressure from well, if any. Pump down csg with 2% KCl water, if necessary to kill well. POH with short string rods and pump. Remove WH. Install BOP's and test to 1000 psi.

2. RU on short string. POH LD 2 3/8" short tbg string. RU on long string. Sting out of Baker Model D pkr at 6375'. POH LD 2 3/8" long tbg string and seal assembly.

3. PU Model DR plug (latching type) and GIH on 2 7/8" EUE 8R L-80 work string to top of Baker Model D pkr at 6375'. Sting into pkr w/ DR plug. Release plug and POH with 2 7/8" work string.

4. PU and GIH with 6 ¼" MT bit and 2 7/8" work string to approximately 5850'. POH with work string and 6 ¼" bit. LD bit.

5. PU and GIH with 7" RBP to 5800'. Set RBP at 5800'. Reverse circulate well clean from 5800' using 2 % KCl water. PUH to approximately 5500'. Pour 5 sks 20/40 sand down tbg and let fall to top of RBP at 5800'. POH with 2 7/8" work string and retrieving head. LD retrieving head.

6. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH and conduct GR/CBL/CCL log from PBTD up to 2800'. POH. **Note: Tie the new log in flat with the Welex Radioactivity Log run 9/25/61.** POH. Inspect logs for good cement bond from approximately 4400' up to 3400'. If bond does not appear to be good across proposed completion interval, discuss with Engineering before proceeding. GIH with 3 1/8" DP slick casing gun and perforate from 3770-74', 3781-91', 3800-08', 3812-18', 3822-24', 3833-43', 3846-54', 3860-66', 3872-80', 3898-3908', 3912-18', 3924-34', 3958-62', 3966-71', 3975-80', 3984-90', and 3994-4004' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit.

7. PU and GIH w/ 7" PPI pkr (with 12' element spacing) and SCV on 2 7/8" work string to approximately 3750'. Test tbg to 5500 psi while GIH.

8. MI & RU DS Services. Acidize perfs 3770-4004' with 3,400 gals anti-sludge 15% HCl acid * at a maximum rate **as shown below** and a maximum surface pressure of **4000 psi**. Spot acid to bottom of tbg at beginning of each stage. Pump job as follows:

Interval	Amt. Acid	Max Rate	PPI Setting
3994-4004'	200 gals	1 BPM	3993-4005'
3984-90'	200 gals	1 BPM	3981-93'
3975-80'	200 gals	1 BPM	3972-84'
3966-71'	200 gals	1 BPM	3962-74'
3958-62'	200 gals	1 BPM	3952-64'
3924-34'	200 gals	1 BPM	3923-35'
3912-18'	200 gals	1 BPM	3911-23'
3898-3908'	200 gals	1 BPM	3897-3909'
3872-80'	200 gals	1 BPM	3870-82'
3860-66'	200 gals	1 BPM	3856-68'
3846-54'	200 gals	1 BPM	3845-57'
3833-43'	200 gals	1 BPM	3832-44'
3822-24'	200 gals	1 BPM	3819-31'
3812-18'	200 gals	1 BPM	3809-21'
3800-08'	200 gals	1 BPM	3797-3809'
3781-91'	200 gals	1 BPM	3780-92'
3770-74'	200 gals	1 BPM	3765-77'

9. 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 2 runs of 250 gals acid each, prior to acidizing perfs. Pickle acid is to contain only 1/2 gal CI-25 and 1 gal NE-13. 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 save remaining acid for high rate combined acid treatment of all zones after completion of the PPI job.**

* Acid system is to contain:	1 GPT CI-25	Corrosion Inhibitor
	2 GPT FE-270L	Iron Control
	1 GPT FE-271L	Iron Control Catalyst
	1 GPT FAW-18	Binding Agent
	1 GPT NE-13	Non-Emulsifier

10. Release PPI pkr and PUH to approximately 3750'. 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.**

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

12. 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 7000 psi. Set pkr at approximately 3650'.

Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication.

13. MI & RU DS Services. Frac well down 3 ½" tubing at **40 BPM** with 56,500 gals of SpectraFrac G3500, 6,000 lbs. 100 mesh White Sand, 133,500 lbs. 16/30 mesh White Sand, and 24,500 lbs **resin-coated** 16/30 mesh proppant. Observe a maximum surface treating pressure of **6500 psi**. Pump job as follows:

    Pump 6,000 gals SpectraFrac G3500 pad
    Pump 6,000 gals SpectraFrac G3500 pad containing 1 PPG 100 mesh sand
    Pump 6,000 gals SpectraFrac G3500 pad
    Pump 3,500 gals SpectraFrac G3500 containing 1 PPG 16/30 mesh Ottawa Sand
    Pump 5,500 gals SpectraFrac G3500 containing 2 PPG 16/30 mesh Ottawa Sand
    Pump 6,000 gals SpectraFrac G3500 containing 3 PPG 16/30 mesh Ottawa Sand
    Pump 6,000 gals SpectraFrac G3500 containing 4 PPG 16/30 mesh Ottawa Sand
    Pump 7,000 gals SpectraFrac G3500 containing 5 PPG 16/30 mesh Ottawa Sand
    Pump 7,000 gals SpectraFrac G3500 containing 6 PPG 16/30 mesh Ottawa Sand
    Pump 3,500 gals SpectraFrac G3500 containing 7 PPG **resin-coated** 16/30 mesh proppant

    Flush to 3650' with 1,333 gals AquaFrac 3500. **Do not overflush.** Shut well in overnight. Record ISIP, 5, 10, and 15 minute SI tbg pressures. RD & Release DS Services.

14. 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.

15. 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.

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

17. PU and GIH w/ BP mud anchor jt of 2 7/8" tbg, 2 7/8" x 4' perforated sub, SN, 12 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 119 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3700' with EOT at 4100' and SN at 4065'.

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

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

AMH
4/17/2002

Well: **Harry Leonard E # 1** Field: **Blinebry Oil & Gas and Drinkard (Dual)** ervoir: **Blinebry & Drinkard**

Current Wellbore Diagram

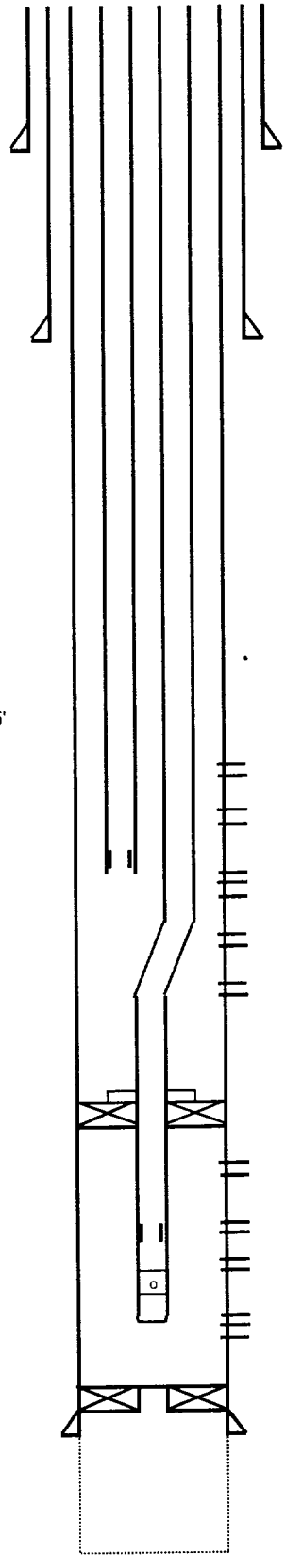
Location:
1980' FNL & 1980' FEL
Section: 16
Township: 21S
Range: 37E
County: Lea State: NM

Elevations:
GL: 3494'
KB:3507'
DF:3506'

Well ID Info:
Chevno: FA7724
API No: 30-025-06620
L5/L6: U462500 & U412800
Spud Date: 9/14/47
Compl. Date: 11/16/47

Surf. Csg: 13 3/8", 48#, SS Csg
Set: @ 294' w/ 300 sks
Hole Size: 17 1/4"
Circ: Yes **TOC:** Surface
TOC By: Circulated

Intermed. Csg: 9 5/8", 36#, H-40
Set: @ 2950' w/ 1300 sks
Hole Size: 12 1/4"
Circ: No **TOC:** 1345'
TOC By: Temperature Survey



Tbg Detail:
Long String:
BP @ 6538'
1 jt. 2 3/8" EUE 8R J-55 Tbg
Baker Mod L Circ Valve (open)
1 jt. 2 3/8" EUE 8R J-55 Tbg
SN @ 6473'
3 jts. 2 3/8" EUE 8R J-55 Tbg
Baker Anchor Seal Assembly
Baker Mod C-1 Tbg Receptacle @ 6375'
167 jts. 2 3/8" EUE 8R J-55 Tbg*

* Long string has T&B couplings.

Short String:
SN @ 5989'
194 jts. 2 3/8" EUE 8R J-55 Tbg

Perfs:	Status
5822-24'	Blinebry - Open
5835-37'	Blinebry - Open
5883-85'	Blinebry - Open
5920-22'	Blinebry - Open
5958-60'	Blinebry - Open

Baker Model D Pkr @ 6375'

6438-40'	Drinkard - Open
6464-66'	Drinkard - Open
6495-97'	Drinkard - Open
6538-40'	Drinkard - Open
6571-73'	Drinkard - Open
6592-94'	Drinkard - Open

Prod. Csg: 7", 23#, J-55 & N-80
Set: @ 6610' w/ 700 sks
Hole Size: 8 3/4"
Circ: No **TOC:** 1360'
TOC By: Temperature Survey

OH from 6610-70' filled with 20/40 frac sand

CICR @ 6600'

COTD: 6600'
PBTD: 6600'
TD: 6670'

Updated: 4/18/02

By: A. M. Howell

Well: **Harry Leonard E** Field: **Penrose Skelly** Reservc ayburg

Location:
1980' FNL & 1980' FEL
Section: 16
Township: 21S
Range: 37E
County: Lea State: NM

Elevations:
GL: 3494'
KB:3507'
DF:3506'

Proposed
Wellbore Diagram

Well ID Info:
Chevno: FA7724
API No: 30-025-06620
L5/L6: U492000
Spud Date: 9/14/47
Compl. Date: 11/16/47

Surf. Csg: 13 3/8", 48#, SS Csg
Set: @ 294' w/ 300 sks
Hole Size: 17 1/4"
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TOC By: Circulated

Intermed. Csg: 9 5/8", 36#, H-40
Set: @ 2950' w/ 1300 sks
Hole Size: 12 1/4"
Circ: No **TOC:** 1345'
TOC By: Temperature Survey

Tbg Detail:
BP @ 4100'
1 jt. 2 7/8" tbg
2 7/8" x 4' perf sub
SN @ 4065'
12 jts. 2 7/8" EUE 8R J-55 tbg
TAC @ 3700'
119 jts. 2 7/8" EUE 8R J-55 tbg

Perfs:	Status:
3770-74'	Grayburg - Open
3781-91'	Grayburg - Open
3800-08'	Grayburg - Open
3812-18'	Grayburg - Open
3822-24'	Grayburg - Open
3833-43'	Grayburg - Open
3846-54'	Grayburg - Open
3860-66'	Grayburg - Open
3872-80'	Grayburg - Open
3898-3908'	Grayburg - Open
3912-18'	Grayburg - Open
3924-34'	Grayburg - Open
3958-62'	Grayburg - Open
3966-71'	Grayburg - Open
3975-80'	Grayburg - Open
3984-90'	Grayburg - Open
3994-4004'	Grayburg - Open

RBP @ 5800'
(20' sand on top)

Perfs:	Status
5822-24'	Blinebry - Below RBP
5835-37'	Blinebry - Below RBP
5883-85'	Blinebry - Below RBP
5920-22'	Blinebry - Below RBP
5958-60'	Blinebry - Below RBP

Baker Model D Pkr w/ DR Plug @ 6375'

6438-40'	Drinkard - Below Plug
6464-66'	Drinkard - Below Plug
6495-97'	Drinkard - Below Plug
6538-40'	Drinkard - Below Plug
6571-73'	Drinkard - Below Plug
6592-94'	Drinkard - Below Plug

Prod. Csg: 7", 23#, J-55 & N-80
Set: @ 6610' w/ 700 sks
Hole Size: 8 3/4"
Circ: No **TOC:** 1360'
TOC By: Temperature Survey

CICR @ 6600'

COTD: 6600'
PBTD: 6600'
TD: 6670'

OH from 6610-70' filled with 20/40 frac sand

Updated: 4/18/02

By: A. M. Howell

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-06620	50350	PENROSE SKELLY GRAYBURG

4 Property Code	5 Property Name	6 Well No.
2669	HARRY LEONARD NCT-E	1

7 OGRID Number	8 Operator Name	9 Elevation
4323	CHEVRON USA INC	3506' DF

10 Surface Location

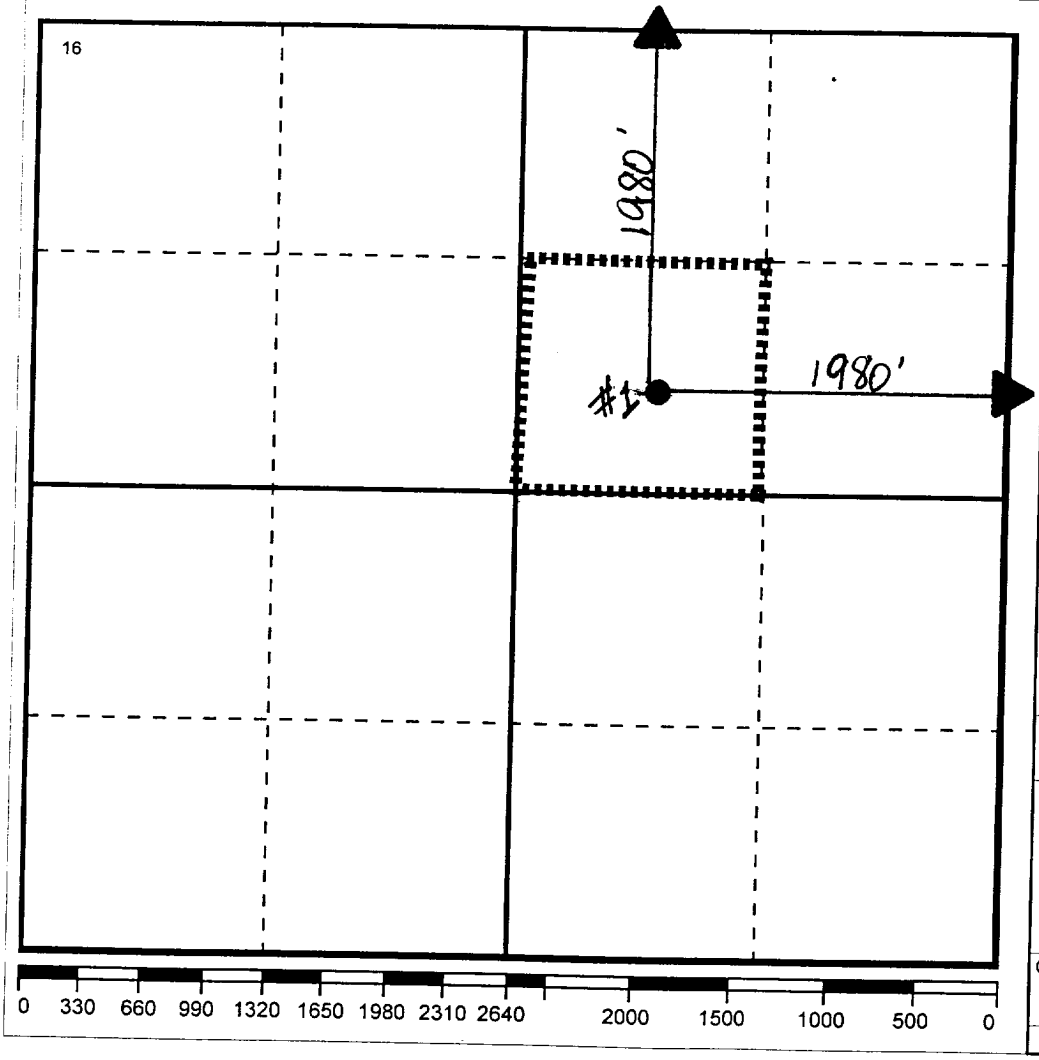
Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
G	16	21-S	37-E		1980'	NORTH	1980'	EAST	LEA

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: J. Denise Leake

Printed Name: Denise Leake

Positio: Regulatory Specialist

Date: 4/22/2002

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