

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, 1999
Instructions on back
Submit to Appropriate District Office
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 CHEVRON USA INC 15 SMITH ROAD, MIDLAND, TX 79705		² OGRID Number 4323
⁴ Property Code 2701	⁵ Property Name MARK OWEN	³ API Number 30-025-26053
		⁶ Well No. 8

⁷ Surface Location									
UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
P	34	21-S	37-E		900'	SOUTH	660'	EAST	LEA

⁸ Proposed Bottom Hole Location If Different From Surface									
UI 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 PENROSE SKELLY GRAYBURG					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² Well Type Code O	¹³ Rotary or C.T. ROTARY	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3394' GL
¹⁶ Multiple No	¹⁷ Proposed Depth 7610'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date 10/15/2003

²¹ Proposed Casing and Cement Program					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
NO CHANGE					

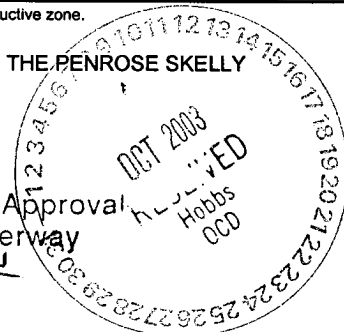
²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

CHEVRON U.S.A. INTENDS TO RECOMLETE THE SUBJECT WELL FROM THE WANTZ GRANITE WASH TO THE PENROSE SKELLY GRAYBURG FORMATION, ACIDZE AND FRAC.

THE INTENDED PROCEDURE AND WELL BORE DIAGRAMS 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.		OIL CONSERVATION DIVISION	
Signature <i>Denise Leake</i>		Approved By: <i>[Signature]</i>	
Printed Name Denise Leake		Title: PETROLEUM ENGINEER	
Title Regulatory Specialist		Approval Date: OCT 16 2003	Expiration Date:
Date 10/8/2003	Telephone 915-687-7375	Conditions of Approval: Attached <input type="checkbox"/>	

PROPOSED WELL DATA SHEET

Field: <u>Penrose-Skelly</u>	Well Name: <u>Mark Owen #8</u>	Lease Type: <u>Fee</u>
Location: <u>900' FSL & 660' FEL</u>	Sec: <u>34-P</u> Township: <u>21S</u>	Range: <u>37E</u>
County: <u>Lea</u> St: <u>New Mexico</u>	Refno: <u>EQ3252</u> API: <u>30-025-26053</u>	Cost Center: <u>UCU490400</u>
Current Status: <u>Producing-Rods</u>	Anchor Test Date: _____	
Current Producing Formation(s): <u>Grayburg</u>	_____	
Initial Producing Formation(s): <u>Granite Wash</u>	_____	

Surface Csg.

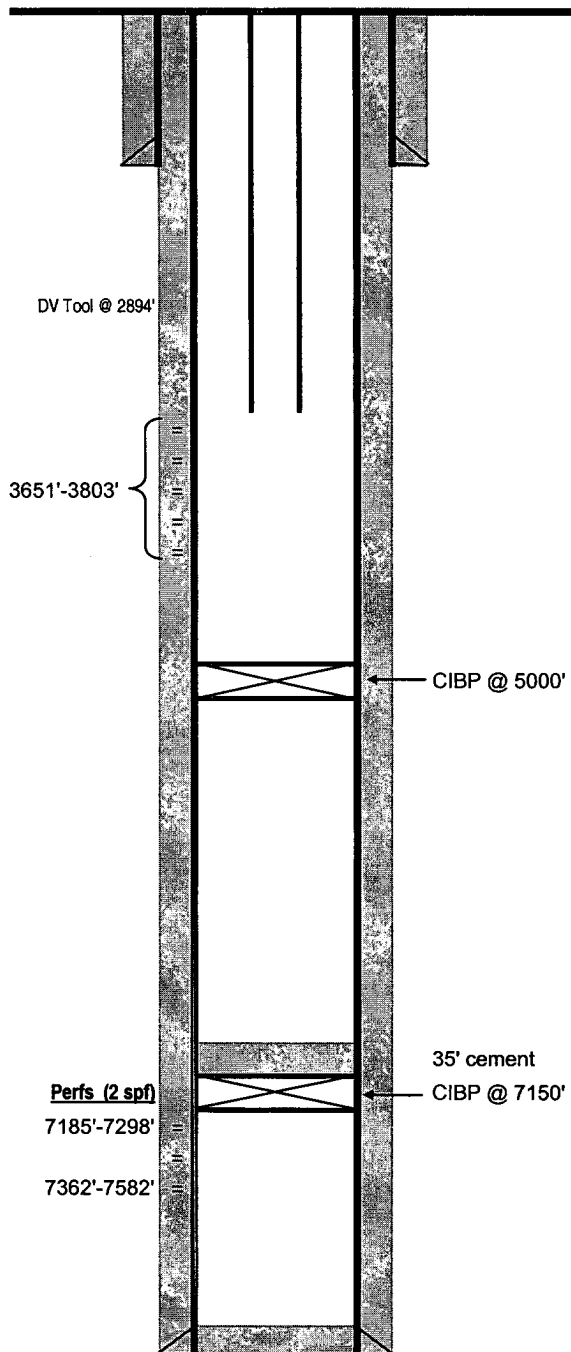
Size: 8 5/8"
 Wt.: 24#
 Set @: 1137'
 Sxs cmt: 550
 Circ: Yes
 TOC: Surface
 Hole Size: 12 1/4"

Production Csg.

Size: 5 1/2"
 Wt.: 15.5#
 Set @: 7610'
 Sxs Cmt: 1915
 Circ: Yes
 TOC: Surface
 Hole Size: 7 7/8"

COTD: _____
 PBSD: 5000'
 TD: 7610'

Yates	<u>2490'</u>
Queen	<u>3299'</u>
Grayburg	<u>3657'</u>
San Andres	<u>3867'</u>
Glorieta	<u>5027'</u>
Blaine	<u>5498'</u>
Tubb	<u>5934'</u>
Drinkard	<u>6261'</u>
Abo	<u>6524'</u>
Gr. Wash	<u>7180'</u>
Granite	<u>7270'</u>



KB: 3405'
 DF: 3404'
 GL: 3394'
 Spud Date: 9/27/1978
 Compl. Date: 10/30/1978

Remarks: _____

Prepared by: MRV
 Date: 10/2/2003
 Updated by: _____

CURRENT WELL DATA SHEET

Field: <u>Wantz</u>	Well Name: <u>Mark Owen #8</u>	Lease Type: <u>Fee</u>
Location: <u>900' FSL & 660' FEL</u>	Sec: <u>34-P</u> Township: <u>21S</u>	Range: <u>37E</u>
County: <u>Lea</u> St: <u>New Mexico</u>	Refno: <u>EQ3252</u> API: <u>30-025-26053</u>	Cost Center: <u>UCU522400</u>
Current Status: <u>Producing-Rods</u> Anchor Test Date: _____		
Current Producing Formation(s): <u>Granite Wash</u>		
Initial Producing Formation(s): <u>Granite Wash</u>		

Surface Csg.

Size: 8 5/8"
 Wt.: 24#
 Set @: 1137'
 Sxs cmt: 550
 Circ: Yes
 TOC: Surface
 Hole Size: 12 1/4"

KB: 3405'
 DF: 3404'
 GL: 3394'
 Spud Date: 9/27/1978
 Compl. Date: 10/30/1978

Production Csg.

Size: 5 1/2"
 Wt.: 15.5#
 Set @: 7610'
 Sxs Cmt: 1915
 Circ: Yes
 TOC: Surface
 Hole Size: 7 7/8"

Initial Completion:

Acdz w/ 6000 gal 15% NEFE HCl.
 Frac w/ 77,000 gal gelled kerosene
 & 68,500 # 20/40 sand

DV Tool @ 2894'

COTD: _____
 PBSD: 7592'
 TD: 7610'

Yates	<u>2490'</u>
Queen	<u>3299'</u>
Grayburg	<u>3657'</u>
San Andres	<u>3867'</u>
Glorieta	<u>5027'</u>
Blaine	<u>5498'</u>
Tubb	<u>5934'</u>
Drinkard	<u>6261'</u>
Abo	<u>6524'</u>
Gr. Wash	<u>7180'</u>
Granite	<u>7270'</u>

Perfs (2 spf)

7185'-7298'

7362'-7582'

711010 oil
711030 gas
711050 wtr

Remarks:

Prepared by: MRV
 Date: 10/2/2003
 Updated by: _____

Mark Owen #8
PB to Grayburg Formation, Acidize, & Frac

API No.: 30-025-26053

Section: 34 **Township:** 21S **Range:** 37E

Surface Location: 900' FSL & 660' FEL

Status: Producing - Rods

WBS No.: **UWPNM-R3xxx-EXP**
 UWPNM-R3xxx-CAP

\$xxxxxx
\$ xxxxx
Total \$xxxxxx

PROCEDURE

1. Displace flowline w/ fresh water. Have the Field Specialist close valve at header. Pressure line according to type. AGU, EMSU, and EMSUB buried fiberglass lines will be tested to 300 psi. All polypipe (SDR7 and SDR11) will be tested to 100 psi. All steel lines will be tested to 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. MIRU rig. Bleed pressure from well, if any. Use 2% KCl water to kill well if needed. POOH w/ rods and pump. ND wellhead. NU BOPE and EPA Equipment. Test BOPE. POOH w/ 2-3/8" tubing.
3. RIH w/ 4 3/4" bit to 7250'. POOH w/ workstring and bit. LD bit.
4. RIH w/ 5 1/2" CIBP and set @ 7150'. Dump 35' cement on top of CIBP. Pressure test casing and CIBP to 500 psi. POOH w/ workstring.
5. RIH w/ 5 1/2" CIBP and set @ 5000'. Pressure test casing and CIBP to 500 psi. POOH w/ workstring.
6. MIRU Baker Atlas. Run GR/CBL/CCL log from 5000' up to 2400'. Tie into Gamma-Collar Perforation Record (Welex) dated 10/27/78. Check logs for good cement bonding from approximately 4200' up to 3300'. If bond does not appear to be good across the proposed completion interval, contact Engineering to discuss cement squeezing options.
7. Perforate the following with 3-1/8" slick guns loaded with 4 JSPF, 120 degree charges: (cont'd on next page)

Top Depth	Bottom Depth	Total Footage	# Holes
3651	3657	6	24
3670	3676	6	24
3700	3706	6	24
3720	3724	4	16
3729	3735	6	24
3746	3752	6	24
3756	3762	6	24
3773	3777	4	16
3784	3788	4	16
3799	3803	4	16

8. RIH w/ 5½" PPI packer (12' element spacing) and SCV. Test tubing to 5500 psi while RIH.
9. MIRU DS services. Acidize perfs 3651'-3803' with 2000 gals 15% NEFE HCl acid at a maximum rate shown below and maximum surface pressure of 4000 psi. Pump job as follows:

Interval	Acid Vol	Max Rate	PPI Setting
3651-57	200 gal	½ bpm	3648-60
3670-76	200 gal	½ bpm	3667-79
3700-06	200 gal	½ bpm	3697-3709
3720-24	200 gal	½ bpm	3714-26
3729-35	200 gal	½ bpm	3726-38
3746-52	200 gal	½ bpm	3742-54
3756-62	200 gal	½ bpm	3754-66
3773-77	200 gal	½ bpm	3769-81
3784-88	200 gal	½ bpm	3780-92
3799-3803	200 gal	½ bpm	3795-3807

10. Displace acid w/ 8.6 ppg brine. Record ISIP, 5 and 10 minute SIP's. RD DS services. **If communication occurs during treatment, attempt to finish stage without exceeding 1000 psi casing pressure. If stage cannot be finished, move PPI to next setting & combine treatment volumes.**
11. Release PPI and POOH above top perf. Swab all intervals in well to recover load. Record recovered volumes, pressures, & fluid levels. Discuss results w/ Engineering. **If excessive water is produced, selectively swab perfs as per discussion w/ Engineering.**
12. POOH w/ tubing and PPI packer. RIH w/ 5½" packer, on/off tool w/ 2.25" "F" profile, and 3½" workstring, testing to 7500 psi. Set packer @ +/- 3600'. Install frac head.

13. MIRU DS services and tracer company. RU chemical company truck and tie into DS line. Pump scale inhibitor (2 drums of SCW358 mixed in 2000 gal 2% KCl). Flush w/ 1000 gal 2% KCl spacer. Frac well at 40 bpm w/ 66000 gals of YF135 (containing 25000 gal pad traced w/ Antimony-xxx), 138000 lbs 16/30 mesh Jordan sand (traced w/ Iridium-192), and 30000 lbs resin coated 16/30 CR4000 proppant (traced w/ Scandium-46). Max treating pressure 7500 psi. Pump job as follows:

Pump 25000 gals YF135 pad containing 5 GPT J451 Fluid Loss Additive (Sb)
Pump 5000 gals YF135 containing 1.5 PPG 16/30 mesh Jordan sand (Ir)
Pump 6000 gals YF135 containing 2.5 PPG 16/30 mesh Jordan sand (Ir)
Pump 7000 gals YF135 containing 3.5 PPG 16/30 mesh Jordan sand (Ir)
Pump 8000 gals YF135 containing 4.5 PPG 16/30 mesh Jordan sand (Ir)
Pump 10000 gals YF135 containing 5.5 PPG 16/30 mesh Jordan sand (Ir)
Pump 5000 gals YF135 containing 6 PPG resin-coated 16/30 CR4000 (Sc)

Flush w/ 1300 gals WF135. Do not overflush. Shut well in. Record ISIP, 5, 10, & 15 minute SI tubing pressures. RDMO DS Services & tracer company. Leave well SI overnight.

14. Open well. RIH and swab well. Check for sand inflow. **Discuss swab results with Engineering**. Release packer and POH w/ workstring. RIH w/ 4 3/4" bit and cleanout any sand to 4000' using 8.6 ppg brine. POOH w/ bit.
15. MIRU Baker Atlas. Run after frac Prism log. RDMO Baker Atlas.
16. RIH w/ production tubing. ND BOPE. NU wellhead. RIH w/ rods & pump. (Art. Lift Rep to design lift system.)
17. RDMO pulling unit. Turn well over to production. Report rates, pressures, and/or fluid levels.

Engineer: Michael R. Villalva
Office: 432-687-7250
Cell: 432-349-4592

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

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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-102

Revised February 10, 1999

Instructions on bac

Submit to Appropriate District Office

State Lease - 4 Copie

Fee Lease - 3 Copie

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-26053	² Pool Code 50350	³ Pool Name PENROSE SKELLY GRAYBURG
⁴ Property Code 2701	⁵ Property Name MARK OWEN	⁶ Well No. 8
⁷ OGRID Number 4323	⁸ Operator Name CHEVRON USA INC	⁹ Elevation 3394' GL

¹⁰ Surface Location

Ul or lot no P	Section 34	Township 21-S	Range 37-E	Lot.Idn	Feet From The 900'	North/South Line SOUTH	Feet From The 660'	East/West Line EAST	County LEA
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11 Bottom Hole Location If Different From Surface

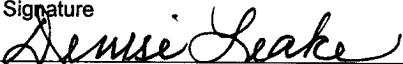
Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
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¹² Dedicated Acre 40	¹³ Joint or Infill No	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

#8
900'
660'

17	OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
Signature 	
Printed Name Denise Leake	
Positio Regulatory Specialist	
Date 10/8/2003	
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.	