

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

Form C-101

Revised February 10, 1999

Instructions on back

Submit to Appropriate District Office

State Lease - 6 Copies

Fee Lease - 5 Copies

☐ AMENDED REPORT**OIL CONSERVATION DIVISION**

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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
		³ API Number 30-025-06930
⁴ Property Code 2690	⁵ Property Name W. T. MCCOMACK	⁶ Well No. 1

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
A	32	21-S	37-E		660'	NORTH	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 D	¹² WellType Code O	¹³ Rotary or C.T. ROTARY	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3464'
¹⁶ Multiple No	¹⁷ Proposed Depth 3950'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date 3/10/2003

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. INC. INTENDS TO DRILL THE SUBJECT WELL DEEPER IN THE GRAYBURG FORMATION AND FRAC STIMULATE. 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

Deepen

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

Printed Name

Denise Leake

Title

Regulatory Specialist

Date

3/7/2003

Telephone

915-687-7375

OIL CONSERVATION DIVISION

Approved By:

ORIGINAL SIGNED BY
PAUL F. KAUTZ
PETROLEUM ENGINEER

Title:

Approval Date:

Expiration Date:

Conditions of Approval:
Attached

MAR 17 2003

W. T. McComack # 1

Penrose Skelly Field

T21S, R37E, Section 32

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 2% KCl water, if necessary to kill well. POH with rods and pump. 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 4 3/4" MT bit & DC's and GIH on 2 7/8" work string to COTD at 3802'. MI & RU foam unit(s). LD and drill deeper to 3810' using foam. POH with 2 7/8" work string, DC's and MT bit. LD MT bit. PU 4 3/4" sealed bearing bit and GIH on 2 7/8" drill string to 3810'. LD and drill well deeper to 3850' using foam. Circulate well clean from 3850'. POH with 4 3/4" bit and drill string. LD bit. **Note: Geology will be monitoring drilling penetration rate while deepening well. Swab depths will probably vary slightly due to exact depths of drilling breaks. Geology will furnish exact depths for swab testing.**
4. PU open-hole inflatable packer and GIH on 2 7/8" work string to 3805'. Set pkr at 3805' and conduct open hole swab test of interval 3805-3850'. 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. Release inflatable pkr at 3805'. POH with inflatable pkr and 2 7/8" work string. LD inflatable pkr.
5. PU 4 3/4" sealed bearing bit and GIH on 2 7/8" drill string to 3850'. LD and drill well deeper to 3890' using foam. Circulate well clean from 3890'. POH with 4 3/4" bit and drill string. LD bit.
6. PU open-hole inflatable packer and GIH on 2 7/8" work string to 3850'. Set pkr at 3850' and conduct open hole swab test of interval 3850-3890'. 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. Release inflatable pkr at 3815'. POH with inflatable pkr and 2 7/8" work string. LD inflatable pkr.

7. PU 4 3/4" sealed bearing bit and GIH on 2 7/8" drill string to 3890'. LD and drill well deeper to 3950' using foam. Circulate well clean from 3950'. POH with 4 3/4" bit and drill string. LD bit.
8. PU open-hole inflatable packer and GIH on 2 7/8" work string to 3890'. Set pkr at 3890' and conduct open hole swab test of interval 3890-3950'. 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. Release inflatable pkr at 3850'. POH with inflatable pkr and 2 7/8" work string. LD inflatable pkr.
9. PU 4 3/4" MT bit & DC's and GIH on 2 7/8" work string to 3950'. Circulate well clean from 3950' using foam. POH with 4 3/4" bit and drill string. LD bit. RD and release foam unit(s).
10. MI & RU electric line unit. GIH and conduct logs as directed by Geology (Contact: **Robert Martin**, telephone **687-7267**). POH. RD & release electric line unit.
11. PU & GIH 5 1/2" 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 3600'.
12. MI & RU DS Services. Acidize open-hole from 3644-3950' 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 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
 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 2% KCl 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

13. 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.
14. Open well. Pump down tbg with 2% KCl water to kill well, if necessary. Release pkr. POH with 2 7/8" work string and packer. LD pkr.
15. PU 4 3/4" MT bit and GIH on 2 7/8" work string to TD at 3950'. If fill is encountered, MI & RU foam unit(s) and cleanout to 3950' using foam. POH with 2 7/8" work string and MT bit. LD MT bit.
16. PU and GIH w/ 5 1/2" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 115 jts. of 3 1/2" EUE 8R L-80 work string, testing to 7500 psi. Set pkr at approximately 3550'. Install frac head. Pressure annulus to 500 psi to test csg and pkr. Leave pressure on csg during frac job to observe for communication.
17. MI & RU DS Services. Frac well down 3 1/2" tubing at **40 BPM** with 68,000 gals of YF135, 127,000 lbs. 16/30 mesh Jordan Sand, and 33,000 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 2,500 gals YF135 containing 6 PPG 16/30 mesh Jordan Sand
 Pump 5,500 gals YF135 containing 6 PPG resin-coated 16/30 mesh CR4000 proppant

 Flush to 3550' with 1,300 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.**
18. Open well. Release pkr and POH with 3 1/2" work string. Lay down work string and pkr.
19. PU 4 3/4" MT bit and GIH on 2 7/8" work string to TD at 3950'. If sand fill is encountered, MI & RU foam unit(s) and cleanout to 3950' using foam. POH with 2 7/8" work string and MT bit. LD work string and bit.
20. 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 114 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3520', with EOT at 3900' and SN at 3865'.
21. Remove BOP's and install WH. GIH with rods, weight bars, and pump per ALS recommended design. RD & release pulling unit.

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

AMH
3/6/2003

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-06930	² Pool Code 50350	³ Pool Name PENROSE SKELLY GRAYBURG
⁴ Property Code 2690	⁵ Property Name W. T. MCCOMACK	⁶ Well No. 1
⁷ OGRID Number 4323	⁸ Operator Name CHEVRON USA INC	⁹ Elevation 3464'

¹⁰ Surface Location

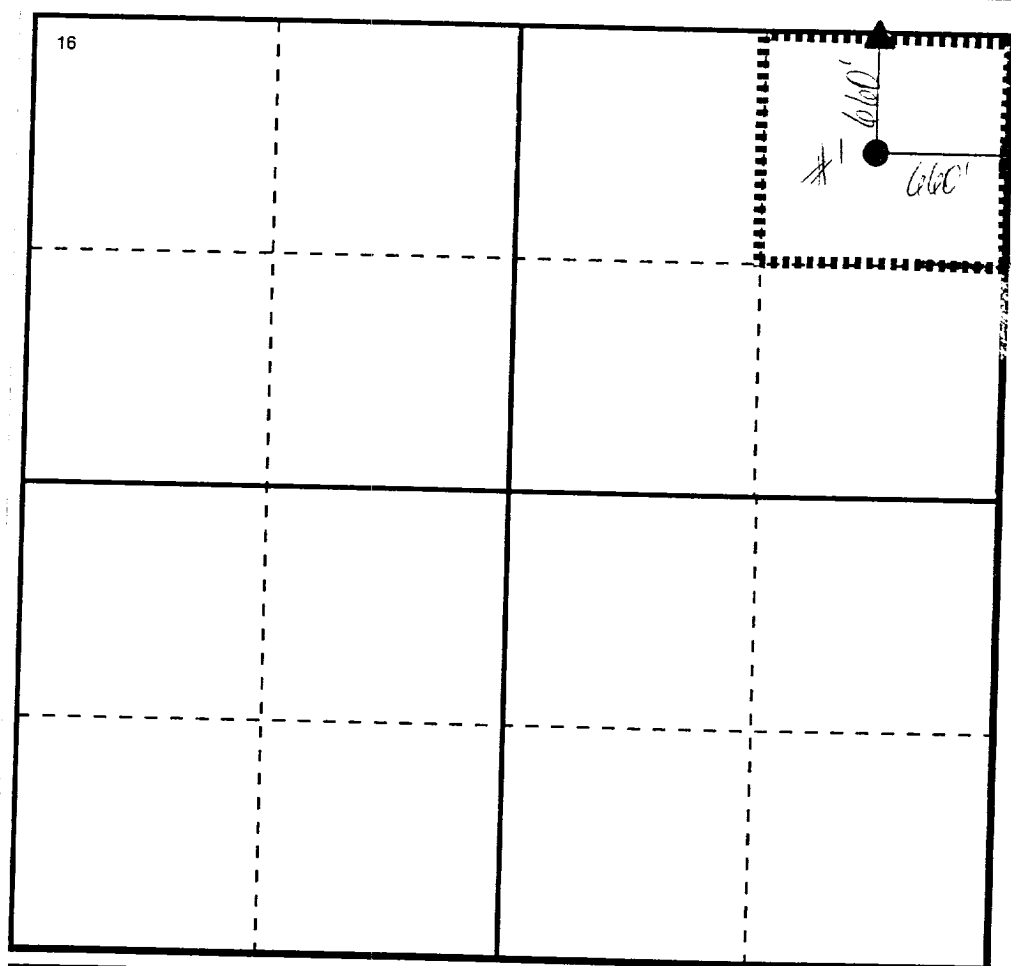
UI or lot no	Section	Township	Range	Lot Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
A	32	21-S	37-E		660'	NORTH	660'	EAST	LEA

¹¹ 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
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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

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

3/7/2003

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.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

WELL DATA SHEET

FIELD: Penrose Skelly
 FORMATION: Grayburg
 LOC: 660' FNL & 660' FEL
 TOWNSHIP: 21S
 RANGE: 37E

LOT: A

WELL NAME: W. T. McComack #1
 (older records carry this well as W. T. McCormack #1)
 SEC: 32 GL: 3464' CURRENT STATUS: PRODUCING
 COUNTY: Lea KB: API NO: 30-025-06930
 STATE: NM DF: REFNO: FA8027

CURRENT

Spud Date: 4/12/36
 Date Completed: 6/30/36
 SAP: UCU491900

Surface Casing
10-3/4" 32#
13-3/4" hole
Set @ 315' w/250 sx cmt
TOC unknown

Intermediate Casing
7-5/8" 26#
9-7/8" hole
Set @ 1290' w/250 sx cmt
TOC unknown

Top of salt @ 1407' →

Base of salt @ 2425' →

Production Casing
5-1/2" 17#
6-3/4" hole
Set @ 3644' w/250 sx cmt
TOC unknown

Tubing Detail 5/23/89
Tubing landed @ 3791'
SN @ 3757'
2-3/8" 4.7# H-40 (119 jts)

OH Interval: 4-3/4" f/3644'-3802'

TD 3802'

WELL DATA SHEET

FIELD: Penrose Skelly
 FORMATION: Grayburg
 LOC: 660' FNL & 660' FEL
 TOWNSHIP: 21S
 RANGE: 37E

LOT: A

WELL NAME: W. T. McComack #1

(older records carry this well as W. T. McCormack #1)

SEC: 32

COUNTY: Lea

STATE: NM

GL: 3464'

KB:

DF:

CURRENT STATUS: PRODUCING

API NO: 30-025-06930

REFNO: FA8027

Spud Date: 4/12/36

Date Completed: 6/30/36

SAP: UCU491900

PROPOSED

Surface Casing
10-3/4" 32#
13-3/4" hole
Set @ 315' w/250 sx cmt
TOC unknown

Intermediate Casing
7-5/8" 26#
9-7/8" hole
Set @ 1290' w/250 sx cmt
TOC unknown

Top of salt @ 1407' →

Base of salt @ 2425' →

← TOC unknown

← TOC unknown

← TOC unknown

Production Casing
5-1/2" 17#
6-3/4" hole
Set @ 3644' w/250 sx cmt
TOC unknown

Tubing Detail
Tubing landed @ 3900'
SN @ 3865'
2-3/8" 4.7# H-40 (122 jts)

OH Interval: 4-3/4" f/3644'-3950'

TD 3950'