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 30-025-06650

4 Property Code	5 Property Name	6 Well No.
29965	MITTIE WEATHERLY	4

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
E	17	21-S	37-E		1980'	NORTH	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 (50350)	

11 Work Type Code	12 WellType Code	13 Rotary or C.T.	14 Lease Type Code	15 Ground Level Elevation
D	O	ROTARY	P	3487' DF
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	3945'	GRAYBURG		11/15/2003

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 zoneand proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

CHEVRON U.S.A. INTENDS TO DRILL THE SUBJECT WELL DEEPER IN THE GRAYBURG FORMATION AND FRAC STIMULATE.

THE INTENDED PROCEDURE AND WELLBORE DIAGRAMS IS ATTACHED FOR YOUR APPROVAL.

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

NOV 2003 RECEIVED Hobbs OCD

NOV 2003 RECEIVED Hobbs OCD

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 10/30/2003 Telephone 915-687-7375

OIL CONSERVATION DIVISION

Approved By: PETROLEUM ENGINEER

Title: PETROLEUM ENGINEER

Approval Date: NOV 12 2003 Expiration Date:

Conditions of Approval: Attached ☐

DeSoto/Nichols 3-94 ver 1.10

Mittie Weatherly # 4
Penrose Skelly Field
T21S, R37E, Section 17
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 8.6 PPG cut brine water, if necessary to kill well. POH with rods and pump. Remove WH. Install BOP's and test to 1000 psi. POH with 2 3/8" tbg string. **Note: Minimize water pumped into well since deepening will be performed using foam due to low pressure Upper Grayburg interval.**

3. PU 4 ¾" MT bit and GIH on 2 7/8" work string to COTD at 3815'. MI & RU air unit(s). Establish circulation using foam. LD and drill on fill in 5 ½" csg at 3815'. Attempt to clean out to a new TD of 3850'. **Note: There is *possibly* a junk pkr (type unknown) in the hole at 3815' (pushed from 3790'). If junk is encountered, pull bit and wash over with 4 ½" shoe.** LD and drill well deeper to a new TD of 3945'. Circulate well clean from 3945' using foam. POH with 2 7/8" work string and bit. LD bit.

4. MI & RU Baker Atlas electric line unit. Install lubricator and test to 1000 psi. GIH with 3 1/8" DP slick casing gun and perforate from 3650-54', 3664-70', 3674-78', 3688-94', and 3810-16' with 4 JSPF at 120 degree phasing, using 23 gram premium charges. POH. RD & release electric line unit. **Note: Use casing collars from Welex Radioactivity Log conducted 12/15/59 for depth correction.**

5. PU and GIH w/ 5 ½" PPI pkr (with 20' element spacing) and SCV on 2 7/8" work string to 3818'. Test tbg to 5500 psi while GIH. Set PPI pkr at 3818'. Pressure test pkr and csg to 350 psi. **Note: Do not exceed 350 psi csg pressure due to cmt sqzd perfs 3492-3528'.**

8. MI & RU DS Services. Acidize Grayburg OH interval from 3839-3945' with 4,500 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 2000 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 8.6 PPG cut brine water -- do not overdisplace. Record ISIP, 5, 10, & 15 minute SIP's. **Note: It is not necessary to pickle tbg due to the low BHP.**

9. PUH and acidize perfs 3650-3816' 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**
3810-16'	200 gals	½ BPM	3800-20'
3788-92'	200 gals	½ BPM	3786-3806'
3774-83'	200 gals	½ BPM	3766-86'
3742-54'	200 gals	½ BPM	3740-60'
3705-20'	400 gals	½ BPM	3703-23'
3688-94'	200 gals	½ BPM	3682-3702'
3664-78'	400 gals	½ BPM	3660-80'
3650-54'	200 gals	½ BPM	3640-60'

Displace acid with 8.6 PPG cut brine water -- do not overdisplace. Use a SCV to control displacement fluid. Record ISIP, 5 & 10 minute SIP's. RD and release DS services. **Note: If communication occurs during treatment of any interval, monitor casing pressure and attempt to complete stage w/o exceeding 350 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

10. PUH with PPI tool to 3600'. Reset PPI pkr at 3600'. GIH and 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.

11. Open well. Pump down tbg with 8.6 PPG cut brine water to kill well, if necessary. Release PPI pkr. POH with 2 7/8" work string and PPI packer. LD PPI pkr.

12. PU 4 ¾" MT bit and GIH on 2 7/8" work string to TD at 3945'. If fill is encountered, MI & RU foam unit(s) and cleanout to 3945' using foam. POH with 2 7/8" work string and MT bit. LD MT bit.

13. PU and GIH w/ 5 ½" Lok-Set pkr & On-Off tool w/ 2.25" "F" profile and 115 jts. of 3 ½" EUE 8R L-80 work string, testing to 7500 psi. Set Lok-Set pkr at 3570'. Pressure annulus to 350 psi to test csg and Lok-Set pkr. Install frac head. Leave pressure on csg during frac job to observe for communication.

14. MI & RU DS Services. Frac well down 3 ½" tubing at **40 BPM** with 66,000 gals of YF135, 138,000 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 2,000 gals 2% KCL water containing 110 gals Unichem TH 756 Scale Inhibitor
    Pump 1,000 gals 2% KCL water spacer
    Pump 25,000 gals YF135 pad containing 5 GPT J451 Fluid Loss Additive
    Pump 5,000 gals YF135 containing 1.5 PPG 16/30 mesh Jordan Sand
    Pump 6,000 gals YF135 containing 2.5 PPG 16/30 mesh Jordan Sand
    Pump 7,000 gals YF135 containing 3.5 PPG 16/30 mesh Jordan Sand
    Pump 8,000 gals YF135 containing 4.5 PPG 16/30 mesh Jordan Sand
    Pump 10,000 gals YF135 containing 5.5 PPG 16/30 mesh Jordan Sand
    Pump 5,000 gals YF135 containing 6 PPG **resin-coated** 16/30 mesh CR4000 proppant

    Flush to 3570' with 1,305 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.**

15. Open well. GIH and swab well until there is no sand inflow. Release pkr and POH with 3 ½" work string. Lay down work string and pkr.

16. PU 4 ¾" MT bit and GIH on 2 7/8" work string to TD at 3945'. If sand fill is encountered, MI & RU foam unit(s) and cleanout to 3945' using foam. POH with 2 7/8" work string and MT bit. LD work string and bit.

17. PU and GIH w/ BP mud anchor jt of 2 7/8" tbg, 2 7/8" x 4' perforated sub, SN, 10 jts 2 7/8" EUE 8R J-55 tbg, TAC, and 116 jts 2 7/8" EUE 8R J-55 tbg, testing to 5000 psi. Set TAC at 3600', with EOT at 3935' and SN at 3900'.

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
10/22/2003

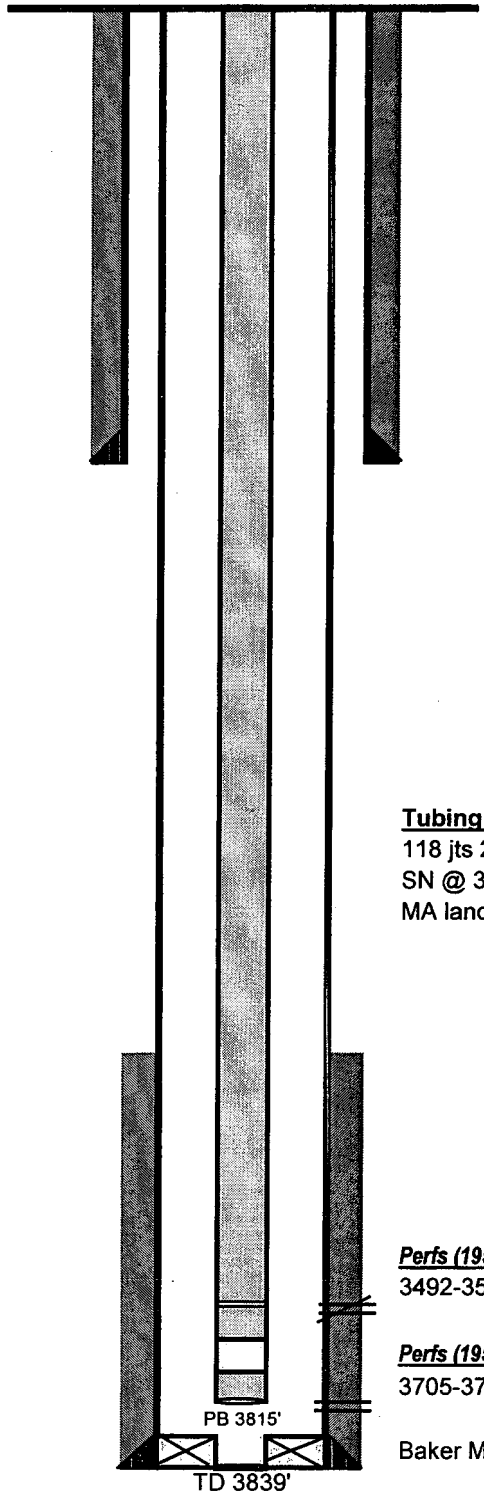
CURRENT WELL DATA SHEET

Field: Penrose Skelly **Well Name:** Mittie Weatherly #4 **Lease Type:** Fee
Location: 1980' FNL & 660' FWL **Sec:** 17-E **Township:** 21S **Range:** 37E
County: Lea **State:** New Mexico **Refno:** FA7754 **API:** 30-025-06650 **Cost Center:** UCU494000
Current Status: SI
Current Producing Formation(s): Grayburg - single completion
Initial Prod Field/Formation(s): Eumont/Queen (Gas) and Penrose Skelly/Grayburg (Oil) - dual completion

CURRENT

Surface Csg.
Size: 8 5/8"
Wt.: 24#
Set @: 1269'
Sxs cmt: 800
Circ: Yes
TOC: surface
Hole Size: 11"

KB:
DF: 3487'
GL:
Spud Date: 12/3/1959
Compl. Date: 12/15/1959



Tubing Detail (5/6/76)
118 jts 2 3/8" J-55 tbg
SN @ 3668'
MA landed @ 3702'

Production Csg.
Size: 5 1/2"
Wt.: 14#
Set @: 3839'
Sxs Cmt: 350
Circ: No
TOC: 2870'
Hole Size: 7 7/8"

Perfs (1959)	*Status*
3492-3528'	Eumont/Queen (gas) - squeezed w/350 sx cmt
3705-3792'	Penrose Skelly/Grayburg (oil) - open

Baker Model Pkr left at bottom of well

Prepared by: K M Jackson
Date: 6/10/2003

CURRENT WELL DATA SHEET

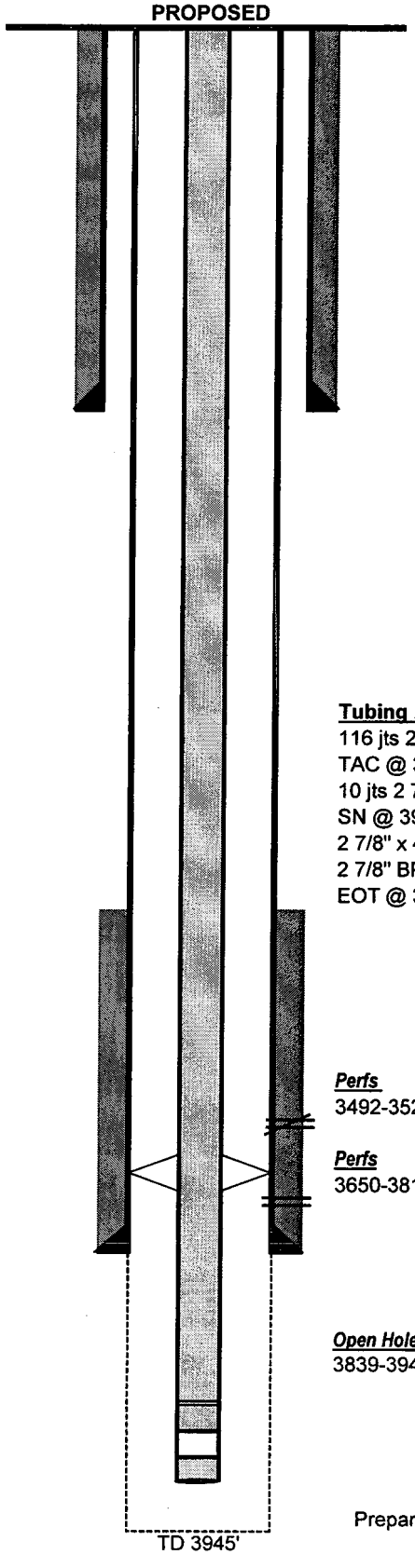
Field: Penrose Skelly **Well Name:** Mittie Weatherly #4 **Lease Type:** Fee
Location: 1980' FNL & 660' FWL **Sec:** 17-E **Township:** 21S **Range:** 37E
County: Lea **State:** New Mexico **Refno:** FA7754 **API:** 30-025-06650 **Cost Center:** UCU494000
Current Status: SI
Current Producing Formation(s): Grayburg - single completion
Initial Prod Field/Formation(s): Eumont/Queen (Gas) and Penrose Skelly/Grayburg (Oil) - dual completion

PROPOSED

Surface Csg.

Size:	**8 5/8"**
Wt.:	**24#**
Set @:	**1269'**
Sxs cmt:	**800**
Circ:	**Yes**
TOC:	**surface**
Hole Size:	**11"**

KB:	
DF:	3487'
GL:	
Spud Date:	12/3/1959
Compl. Date:	12/15/1959



Tubing Detail
116 jts 2 7/8" J-55 tbg
TAC @ 3600'
10 jts 2 7/8" J-55 tbg
SN @ 3900'
2 7/8" x 4' Perf Tbg Sub
2 7/8" BPMA joint
EOT @ 3935'

Production Csg.

Size:	**5 1/2"**
Wt.:	**14#**
Set @:	**3839'**
Sxs Cmt:	**350**
Circ:	**No**
TOC:	**2870'**
Hole Size:	**7 7/8"**
OH Size:	**4 3/4"**

Perfs	*Status*
3492-3528'	Eumont/Queen (gas) - squeezed w/350 sx cmt
3650-3816'	Penrose Skelly/Grayburg (oil) - open

Open Hole	*Status*
3839-3940'	Penrose Skelly/Grayburg (oil) - open

TD 3945'

Prepared by: K M Jackson
Date: 6/10/2003