orm 3160-5 June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Budget Bureau No. 1004-0135

Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS	5. Lease Designation and Serial No. JIC. CONTRACT 34
Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.	6. If Indian, Alottee or Tribe Name
Use "APPLICATION FOR PERMIT" for such proposals	JICARILLA APACHE
SUBMIT IN TRIPLICATE	7. If Unit or CA, Agreement Designation
Type of Well:	8. Well Name and Number
Type of Well. Well U OTHER	JICARILLA C
Name of Operator TEXACO EXPLORATION & PRODUCTION, INC.	35
Address and Telephone No. 3300 N. Butler Suite 100, Farmington NM 87401 325-4397	9. API Well No. 3003923433
Location of Well (Footage, Sec., T., R., M., or Survey Description)	10. Field and Pool, Exploaratory Area
t Letter L : 1850 Feet From The SOUTH Line and 1190 Feet From The	LINDRITH GALLUP-DAKOTA, WEST
	11. County or Parish, State
ST Line Section 21 Township 25N Range 5W	RIO ARRIBA , NM
Check Appropriate Box(s) To Indicate Nature of Notice, F	Report or Other Data
	TYPE OF ACTION
Abandonment	Change of Plans
DECENIA Recompletion	New Construction
Notice of Intent Plugging Back	Non-Routine Fracturing
	Water Shut-Off
Subsequent Report JUL 1 1 1 1885 - Casing Repair	
Subsequent Neport	Conversion to Injection
Atlering Casing	=
Final Abandonment Notice Color Atlering Casing OTHER: SIDE-TRACK	Dispose Water State: Report results of multiple completion on Well Completion or Recompletion Report and Log Form.) Cluding estimated date of starting any proposed work.
Final Abandonment Notice Atlering Casing Atlering Casing OTHER: SIDE-TRACK DISTILO SIDE-TRACK DISTILO OTHER: SIDE-TRACK DISTILO DISTILO SIDE-TRACK DISTILO DIST	Dispose Water Report results of multiple completion on Well Completion or Recompletion Report and Log Form.) Cluding estimated date of starting any proposed work. It is and zones pertinent to this work,)*. THE EXISTING WELLBORE, AND DRILL A COTION IS AS FOLLOWS: FOR HARDNESS. TARGET DEPTH OF 6070' (TVD) FOR I WITH 100' RADIUS. E HORIZONTAL SECTION WILL BE 6070'.
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Final Abandonment Notice Completed Operations (Clearly state all pertinent details, and give pertinent dates, inc.	Dispose Water Completion or Recompletion on Well Completion or Recompletion Report and Log Form.) Cluding estimated date of starting any proposed work. It is and zones pertinent to this work,)*. THE EXISTING WELLBORE, AND DRILL A COTION IS AS FOLLOWS: FOR HARDNESS. TARGET DEPTH OF 6070' (TVD) FOR IT WITH 100' RADIUS. E HORIZONTAL SECTION WILL BE 6070'. DIAGRAMS.

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or

representations as to any matter within its jurisdiction.

Attachment I

JICARILLA "C" No. 35 HORIZONTAL SINGLE LATERAL REENTRY

The subject well is a producing well. It is to be reentered and a single horizontal lateral is to be drilled in the Gallup formation. The existing perforations will be squeeze cemented and a 40' section is to be milled in the casing. A short radius horizontal lateral will be drilled in the west direction approximately 2500' long. The well will be acidized using coiled tubing, if necessary, and then production tested.

WELL PREPARATION:

- 1) MIRUSU. Nipple up 3M BOPE.
- 2) Kill well with produced water.
- 3) TOH and lay down 2-3/8" production tubing.
- 4) TIH with 4-3/4" bit on 2-7/8" work string and clean out to PBTD. TOH.

SQUEEZE EXISTING PERFORATIONS: (A CIBP may be set instead of squeezing)

- 5) TIH with cement retainer on tubing and set above perfs (7028'-7090') at 7000'.
- Space out tubing in neutral position and test tubing to 3000 psi. Rig up squeeze manifold. Establish rate into perforations (2 BPM), note pump in pressure. Pressure up annulus to 1000 psi, monitor casing during job.
- 7) Cement squeeze with 150 sx Class "G" with 0.2% D156 and 0.2% D65 to obtain a fluid loss of 200-300 cc/30 min. (determine by lab testing) followed by 100 sx Class "G" neat. mixed at 15.8 ppg. Minimum pump time 150 minutes at 175°F.
- 8) a) Spot cement to end of tubing.
 - b) Sting into retainer.
 - c) When cement reaches perforations, slow rate to 1/2 BPM
 - d) Maximum squeeze pressure 3000 psi.
 - e) Displace cement to retainer.
- 9) Pull out of retainer, reverse out cement and check for flow. Pull tubing to 4000' and shutin for 24 hours.
- 10) Shut in backside and test casing to 500 psi.

Jicarilla "C" No. 35 Horizontal Reentry Rio Arriba County, New Mexico Drilling & Completion Procedure

MILL 5 1/2" CASING:

11) Circulate hole with mud for milling. TOH with tubing and bit.

MUD:

Starch

Volume:

 $(6000^{\circ} * .0238 \text{ bbl/ft} = 143 \text{ bbls} + 200 \text{ bbls for pit} = 343 \text{ bbls})$

Weight: 8

8.5 - 8.7

Funnel Visc.: 75-80

- 12) If casing collar log is not available in Area, Run GR-CCL to determine position of collars. (Window may be moved +/- 10 to avoid milling a casing collar).
- TIH with mill for 5 1/2" casing on 2 7/8" workstring. Mill 40' section of casing from +/-5960' 6000'. While milling, run paper sweeps in the mud to ensure the hole is clean. Place ditch magnets in return lines to catch metal cuttings. Any time a trip is made, make sure the hole is clean and the blades are retracted.
- 14) TOH with mill.

SPOT KICK OFF PLUG:

- TIH with diverter tool and ±/- 400° 2 3/8" (2 1/16" if available) on 2 7/8" work string to 6010°. Circulate Starch mud out of hole. Pull up hole so diverter tool is across milled section and wash section. TIH to PBTD.
- Spot 50 sx Class "G" mixed at 17.5 PPG from 5760' to +/- 6010' (200' above window). Batch mix cement. Pull out of cement plug slow to approximately 4000'. **Do not reverse circulate**. Shut in for 24 hours minimum. TOH with tubing.
- TIH with 4 3/4" bit and dress off cement to the KOP at 5970'. TOH with 4 3/4" bit. Cement must drill 1.5-2 min/ft with 10 pts and 50 RPM to insure the plug is hard enough for kickoff.
- 18) Circulate hole clean.

Jicarilla "C" No. 35 Horizontal Reentry Rio Arriba County, New Mexico Drilling & Completion Procedure

DRILL CURVE SECTION (WEST DIRECTION):

19) Displace hole with starch mud. TOH with bit.

MUD:

Starch

Volume:

(6000' * .0238 bbl/ft + 200 bbls for pit + 2500' * .0219 bbl/ft)

(143 bbls + 200 bbls + 55 bbls = 398 bbls)

Weight:

8.7

Funel Visc.:

35-40

20) Pick up kick-off motor and test on surface. TIH with kick-off BHA s follows:

4 3/4" bit.

Kick-off motor (with 2.5-3.0° bent sub)

Float/ orientation sub.

1 it 2 7/8" flexible monel collars.

Enough P-110 tubing to reach from KOP to end of planned horizontal wellbore.

Drill collars

2 7/8", Grade G, AOH DP. to surface.

- 21) TIH to KOP (5970'). Run GYRO and Orient motor to west direction. Break circulation and establish off bottom pressure at operating flow rates. Planned build rate is 57°/100' with a radius of 100'.
- Slowly lower motor to bottom, adjusting toolface as necessary to compensate for reactive torque. Drill approximately 20' of build section with kick-off motor. TOH with kick-off motor and lay down. Pick up build motor (3 restricted articulations to maintain build rates below 70°/100') and TIH. Continue drilling curve while maintaining proper toolface orientation. Drill curve section to target depth of 6070' TVD for start of horizontal.
- 23) Circulate hole clean. TOH with curve motor.

DRILL HORIZONTAL LATERAL (WEST DIRECTION):

24) TIH with lateral motor BHA. (Same as step 22 but motor has lower buil ! rate.)

Jicarilla "C" No. 35
Horizontal Reentry
Rio Arriba County, New Mexico
Drilling & Completion Procedure

- Drill the horizontal lateral (2500') adjusting tool face as needed to the target. The end of the horizontal target depth is 6070' TVD. There is a window around the target line which the well path is to stay within. (see attached well plan for well path and hardlines). While drilling the lateral section, run sweeps of 5 bbls. water, 3 bbls prehydrated gel (90+ viscosity), and 1 gallon polymer.
- 26) At TD circulate hole clean with mud. TOH. Release directional equipment.

COMPLETION:

- TIH with muleshoe. 6 jts P-110 tbg and 5-1/2" casing on 2 7/8" tubing. Space out so P-110 tubing is across curve section and packer is in the casing. Set the packer.
- 28) Rig up coiled tubing unit. T'H with "PERFCLEAN" jetting sub on 1 1/2" coiled tubing to TD. Circulate mud out of hole
- Wash 1st lateral open hole with 25,000 gallons 15% NEFE. Rate 2 BPM. POH with coiled tubing while acidizing so entire open hole is stimulated.
- 30) Displace acid to the end of the tubing. SI for 15 min.
- 31) Flow well until dead. TOH with coiled tubing.
- 32) TOH with workstring. TIH with production equipment and test well as needed.

8-5/8", 24#, K-55 CSG



JICARILLA C No. 35 **CURRENT COMPLETION**

LOCATION:

1850' FSL & 1190' FWL Sec. 21, T25N, R5W Rio Arriba, NM

SPUD DATE: 4/19/84 RECOMPL. DATE: 6/12/84

ELEVATION: 6631' KB

6619' GR

FORMATION TOPS:

Ojo Alamo 2154' (+4477') Kirtland 2324' (+4307') Fruitland 2462' (+4169') Pictured Cliffs 2692' (+3939') Chacra 3560' (+3071') Mesaverde 4337' (+2294') Gallup 6048' (+ 583') Greenhorn 6807' (- 176) Graneros 6874' (- 243) Dakota 6906' (- 275)

Set @ 306' In 12-1/4' Hole w/ 275 SXS CMT CMT Circ. TOC @ 570' (CBL) DV Tool @ 4205' 2nd Stage w/ 1075 SXS CMT TOC @ 570' (CBL) TOC @ 5720' (CBL) 2-3/8" 4.7#, J-55 TBG @ 7058' 5-1/2", 17# & 14#, J-55 CSG* 8rd ST&C, J-55 & K-55 Conditions A, B, & C Set @ 7170' in 7-7/8" Hole 1st Stage w/ 670 SXS CMT TOC @ 5720' (CBL)

DAKOTA PERFS:

7028'-37', 7042'-46' 7066'-71', 7080'-90' 1 SPF, 0.40" dia. Holes Frac w/ 56,700 Gal. 70 Q Foam

& 53,500# 20-40 Brady Sand BD w/ 1400 Gal. 15% HCl w/ 500 SCF/BBL N2

PBTD - 7130' TD - 7170'



JICARILLA C No. 35 PROPOSED SIDETRACK COMPLETION

