

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION

1000 BRAZOS RD.
AZTEC, NM 87410

Submit 3 copies to
Appropriate District Office

DISTRICT 1
P O Box 1980, Hobbs, NM 88240
DISTRICT 2
P O Drawer DD, Artesia, NM 88210
DISTRICT 3
1000 Rio Brazos Rd., Aztec, NM 87410

<p>SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)</p>		<p>WELL API NO. 30-039-24643</p>	
<p>1. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/></p>		<p>5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/></p>	
<p>2. Name of Operator WILLIAMS PRODUCTION COMPANY</p>		<p>6. State Oil & Gas Lease No.</p>	
<p>3. Address of Operator P O BOX 3102, MS: 37-2, TULSA, OK 74101</p>		<p>7. Lease Name or Unit Agreement Name ROSA UNIT</p>	
<p>4. Well Location Unit Letter <u>M</u> : <u>1310</u> Feet From The <u>SOUTH</u> Line and <u>985</u> Feet From The <u>WEST</u> Line Section <u>20</u> Township <u>31N</u> Range <u>5W</u> NMPM RIO ARRIBA COUNTY</p>			
<p>10. Elevation (Show whether DF, RKB, RT, GR, etc.) 6330' KB</p>		<p>CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</p>	
<p>NOTICE OF INTENTION TO:</p>		<p>SUBSEQUENT REPORT OF:</p>	
<p>PERFORM REMEDIAL WORK TEMPORARILY ABANDON PULL OR ALTER CASING</p>	<p>PLUG AND ABANDON CHANGE PLANS OTHER <u>CAVITATION</u></p>	<p>REMEDIAL WORK COMMENCE DRILLING OPERATIONS CASING TEST AND CEMENT JOB</p>	<p>ALTERING CASING PLUG AND ABANDONMENT OTHER</p>
<p>12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.</p> <p>Williams Production Company plans to cavitate this well as per the attached procedure. Estimated start date 4/1/1999.</p> <p style="text-align: center;"><i>Continued on reverse side</i></p>			
<p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p>SIGNATURE <u>[Signature]</u> TITLE <u>CLERK</u> DATE <u>February 4, 1999</u></p> <p>TYPE OR PRINT NAME <u>SUSAN GRIGUHN</u> TELEPHONE NO. <u>918/561-6254</u></p>			
<p>(This space for State Use) ORIGINAL SIGNED BY <u>ERNEST BUSCH</u> TITLE <u>DEPUTY OIL & GAS INSPECTOR, DIST. 43</u> DATE <u>FEB 23 1999</u></p> <p>APPROVED BY _____</p> <p>CONDITIONS OF APPROVAL, IF ANY _____</p>			

WILLIAMS PRODUCTION COMPANY
CAVITATION PROGNOSIS

Purpose: To pull the liner and cavitate the Fruitland Coal zone.

1. Prepare location, reserve pit, bank, and test anchors prior to rig move.
Notify BLM 24 hours to moving in.
Spot all tanks. Spot air package. Use produced water for workover.
2. MIRUSU. Nipple up BOP's, 2 blooie lines, working valves and 2" relief line. Test BOP's.
3. TOOH w/ tubing and LD.
4. TIH with T.I.W. setting tool on 3-1/2" drill pipe. Tag liner top. Thread setting tool into liner langer and pull straight out to release hanger and liner. TOH with liner and drill pipe.
5. Re use liner if not damaged. Recondition JGS liner hanger with left hand threads and re-use.
6. If liner recovery with setting tool was unsuccessful, mill it out as follows.
Pickup rotary shoe, bumper sub, jars, 6-1/4" mill and 4-3/4" drill collars on 3-1/2" drill pipe and TIH. Mill the top hold down slips off the JGS, Steel Sleeve liner hanger. TOOH. Pick up spear and the fishing tool assembly and TIH. Spear into the liner top and jar liner loose.
7. TOOH w/ liner and LD. Repair liner if necessary.
8. PU correct size bit on 3-1/2" DP and TIH. Clean out to TD. TOOH.
9. PU 7" X 9-1/2" Underreamer and underream from casing shoe to TD. TOOH.
10. Hook up air package.
11. TIH w/ bit on 3-1/2" DP and circulate out fill. Run 5 – 10 bbl sweeps using 1 GPB of soap if necessary.
12. PU bit drill pipe inside casing. Pressure up hole to max pressure then surge. Do this repeatedly. Five to ten times. Also alternate with natural surges periodically.
13. Repeat 2-3 weeks or until gas production no longer increases.

NOTE: Accurate choke guages are required after each cycle. Track buildup pressure also.

14. TOH w/ 6-1/4" bit on 3-1/2" DP.
15. PU original 5-1/2" liner on DP. Run in with reconditioned JGS liner hanger with left hand threads and L A set shoe on bottom of liner. Rotate down if necessary. Land liner @ TD with 100' overlap in casing. TOOH w/ DP and LD.
16. Perforate liner. Depths and number of holes will be determined by engineering based off open hole

and mud logs. Use Blue Jets large diameter "Big Hole" shots (0.71" diameter) or equivalent.

17. PU 2-3/8", 4.7#, J-55, 8rd, EUE tbg or 2-7/8" to be determined by cavitation results and RIH. Land tubing near bottom perf. Exact depth to be determined. Leave sufficient rat hole.
18. ND BOP and NU wellhead. Shut well in for buildup.
19. Cleanup location and release rig.

Steve Kutz

Senior Engineer