ge of to he land		OF INTERIOR AND MANAGEMENT	HORM APPROVED Budget Bareau No. 1004-0135 Expires: March 31, 1993	
Do not w	RECEIVED BY SUNDRY NOTICE AND	REPORTS ON WELLS or reenty to a different reservoir. Use "APPLICATION	 Lease Designation and Serial No. SF-078772 	
Do not us	99 MAR -8 PH TO BRILL" for perm	nit for such proposals	6. If Indian, Allottee or Tribe Name	
	070 FARMINGTON, NWI SUBMIT IN	TRIPLICATE CT STATE CONTROL OF THE C	7. If Unit or CA, Agreement Designation ROSA UNIT	
1.	Type of Well □ Oil Well ■ Gas Well	□ Other	8. Well Name and No. ROSA UNIT #329	
2.	Name of Operator WILLIAMS PRODUCTION COMPANY	DIV.	9. API Well No. 30-039-24928	
3.	Address and Telephone No. PO BOX 3102 MS 37-2, TULSA, OK 7410	1 (918) 561-6254 DIST. 3	10. Field and Pool, or Exploratory Area BASIN FRUITLAND COAL	
4.	1 ocation of well importage, Sec., 1., K., W., or Survey Description		11. County or Parish, State RIO ARRIBA, NM	
CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA				
	TYPE OF SUBMISSION	YPE OF SUBMISSION TYPE OF ACTION		
	■ Notice of Intent □ Subsequent Report	☐ Abandonment ☐ Recompletion ☐ Plugging Back ☐ Casing Repair	☐ Change of Plans ☐ New Construction ☐ Non-Routine Fracturing ☐ Water Shut-Off	
	☐ Final Abandonment	□ Altering Casing ■ Other <u>Cavitation</u>	 ☐ Conversion to Injection ☐ Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) 	
13.	Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*			
	Williams Production Company plans to cavitate this well as per the attached procedure. Estimated start date is 4/1/1999.			
			EGEIVED MAR 1 0 1999	
			CH CON. DIV. Mar. 3	
14.	I hereby certify that the foregoing is true a	nd correct		
	Signed SUSAN GRIGUHN	Title <u>CLERK</u>	Date February 4, 1999	
	(This space for Federal or State office use Approved by /S/ Duane W. Spen	Team Lead, Petroleum M	Date MAR - , 15 mg	
	Conditions of approval, if any:			
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.				

generic_cav_liner.doc

WILLIAMS PRODUCTION COMPANY CAVITATION PROGNOSIS

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

- 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.
- 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.
- 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.

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