

UNITED STATES
DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDY NOTICE AND REPORTS ON WELLS / RECEIVED
Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION TO DRILL" for permit for such proposals

5. Lease Designation and Serial No.
SF-078765

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation
ROSA UNIT

8. Well Name and No.
ROSA UNIT #222

9. API Well No.
30-039-24498

10. Field and Pool, or Exploratory Area
BASIN FRUITLAND COAL

11. County or Parish, State
RIO ARRIBA, NM

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other
2. Name of Operator
WILLIAMS PRODUCTION COMPANY
3. Address and Telephone No.
PO BOX 3102 MS 37-2, TULSA, OK 74101 (918) 561-6254
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1910' FNL & 635' FEL, SE/4 NE/4, SEC 15 T31N R6W

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent <input type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other <u>Cavitation</u>
	<input type="checkbox"/> Change of Plans <input type="checkbox"/> New Construction <input type="checkbox"/> Non-Routine Fracturing <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> 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 4/1/1999.

14. I hereby certify that the foregoing is true and correct

Signed SUSAN GRIGUHN

Title CLERK Date February 5, 1999

(This space for Federal or State office use)

Approved by /S/ Duane W. Spencer

Title Team Lead, Petroleum Management Date 5/2/99

Conditions of approval, if any:

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 bleed 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 hanger 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 gauges 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.

Step Katrags
Senior Engineer