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UNITED STATES SUBMIT IN TRIPLICATE* (Other instructions on re-

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(i. gr. etc.) 12. coo	8, T30N, R7W NIT OR PARISH 18. STATE Arriba New Mexico
WATER SHUT-OFF FRACTURE TREATMENT SHOOTING OR ACIDIZING (Other) (NOTE: Report results of multi Completion or Recognition Rel	BEFAIRING WELL ALTERING CASING ABANDONMENT* Dietion Well Wort and Log form.)
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- nent to this work.)
 - 01-31-89 Move in and rig up. Nipple down wellhead, nipple up 4-3/4' bit and 2 7/8" tubing. Tag cement at 2584' with 80 jts of tubing. Drill 6' of cement to DV tool at 2590'. Drill out DV tool.
 - 02-01-89 Clean out to PBTD. Run VDL-CBL-CCL logs. Ran bond logs under pressure of 1200 psi. Pressure tested casing to 1500 psig for 15 minutes - held OK. Perf under lubricator 3023'-3033' (10'), total 40 shots @ 4 JSPF, 22.5 grams, .48". Prepare to frac.

02-02-89 1st stage frac job Summary: Stimulated well with 36,680# 40/70 Arizona sand and 68,250# 12/20 Brady sand with 50,190 gals 30# ultra frac gel and 4956 gals of crosslinker. Treatment averaged 41 BPM @ 2800 psig. Maximum - 3248 psig @ 42 BPM. Minimum - 2710 psig @ 41 BPM. ISIP - 2020 psig. Shut in after 5 minutes - 1800 psig, 10 minutes - 1749 psig, 15 minutes - 1701 psig. Job completed 2-1-89. Shut in well.

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DIST.

(Continued on next page)

18. I hereby certify that the foregoing is true and correct) SIGNED William F. Clark	TITLE Operations Mana	ager DATE	March 6, 1989
(This space for Federal or State office use)		DATE	
APPROVED BY	TITLE	DATE	

*See Instructions on Reverse Side

- O2-03-89 Run in hole with 2 7/8" sawtooth collar and 2 7/8" tubing. Tagged fill at 3020'. Clean out to 3075'. Run Howco 5-1/2" drillable bridge plug, set at 3010'. Pressure test casing to 1000# for 10 minutes. Plug held pressure. Perfed in two runs under lubricator: 1st: 2974'-2990' (16'); 2nd: 2934'-2949' (15'). Net of 31', total of 124 shots @ 4 JSPF, 22.5 grams, .48". 2nd stage job Summary: Stimulated well with 28,300# 40/70 Arizona sand and 198,000# 12/20 Brady sand with 83,400 gal. 30# Ultra frac gel and 7,600 gal. cross linker. Treatment averaged 49 BPM @ 3000 psig. Maximum 3410 psig @ 50 BPM; minimum 2575 psig @ 49 BPM. ISIF 2002 psig. Shut in after 5 minutes 1750 psig, 10 minutes 1710 psig, 15 minutes 1700 psig. Job completed 2-2-89. Shut well in for night.
- 02-04-89 Pick up 4 3/4" bit and 2 7/8" tubing. Tag sand at 3003', top of bridge plug at 3008'. Drill out plug and clean out to PBTD of 3191'. Run double tracer log under lubricator. Run scandium-iridium tracer. Second stage iridium frac stayed in interval between 2932' and 2990' with major entries into coal zones at 2972'-2982' and 2932'-2948'. First stage scandium confined to perforated interval at 3021'-3031' with spike at 2952' in shaly interval. Run in hole with Howco 5 1/2" drillable bridge plug under lubricator and set plug at 2928'. Pressure test plug to 900 psig for 10 minutes, held pressure.
- O2-07-89 Perforate under lubricator. Make two runs: lst, 2890'-2916' with 4 JSPF, net 26' and 104 shots; 2nd, 2976'-2988' with 2 JSPF, net 12' and 24 shots. Total of 38' and 128 shots. Frac, 3rd stage job summary: Stimulated well with 36,500# 40/70 Arizona sand and 225,500# 12/20 Arizona sand with 100,300 gal. 30# X-linked gel. Treatment averaged 50 BPM @ 2050 psig. Treating rates lower due to freezing. Maximum pressure 2390 psig @ 52 BPM, minimum pressure 1502 psig @ 51 BPM. ISIP 2030 psig. Shut in 5 minutes 1856 psig, 10 minutes 1740 psig, 14 minutes 1600 psig. Nolte slope positive throughout job. Successful frac; job completed 2-6-89. Shut well in for night.
- 02-08-89 SICP 600 psig. Pick up 4 3/4" mill-tooth bit and 2 7/8" tubing. Tag fill at 2921'. Clean out 6' of sand to tog of bridge plug at 2927'. Drill plug out. Clean out to PBTD of 3191'. Circulate hole clean. Shut down for night.
- 02-09-89 SICP 700 psig. Trip in hole to PBTD of 3191'. No fill. Run tracer log. Log indicates 3rd stage frac contained in zone from 2870' 2922'. Pick up notched collar, 1 jt. tail pipe, seating nipple and 98 jts. 2 7/8" tubing. Total of 3052.17 feet tubing. Tubing landed at 3063' seating nipple at 3033'. Nipple down BOP, nipple up wellhead. Rig down.