

SUPPLEMENTARY WELL HISTORY  
GALLEGOS CANYON UNIT NO. 85

Spudded 12-1/4" hole on November 20, 1959 and drilled to 302'. 9-5/8" casing was set at 302' with 250 sacks cement containing 2% calcium chloride. After waiting on cement, casing and water shut off were tested with 800 psi for 30 minutes which held with no indication of pressure drop. Reduced hole to 8-3/4" at 302' and resumed drilling operations.

Total depth 6230'. Ran electric and sonic logs. 7" casing was set at 6230' and cemented first stage with 250 sacks 6% gel cement with 1-1/2 pounds Tuf-Plug per sack followed by 100 sacks neat cement. Full returns throughout first stage. Tested plug with 3000 psi for 15 minutes which held with no indication of pressure drop. Cemented second stage with 200 sacks 6% gel cement. Tested plug with 3000 psi for 15 minutes, which held with no indication of pressure drop. Drilled stage collar at 1745. Plug back depth 6195'. Preparing for completion operations.

Total depth 6230'. Plug back depth 6195'. Moved in and rigged up completion unit. Spotted 500 gallons 15 percent MCA over Dakota zone. Tested casing and blow-out-preventer with 3000 psi for 15 minutes which held ok. Perforated Dakota 6092' - 6098' and 6130' - 6134' with 6 shots per foot. Sand water fractured Dakota with 60,000 gallons water and 50,000 pounds 20-40 mesh sand and tailed in with 20,000 pounds 10-20 mesh sand. Increased sand to 2 pounds per gallon at end of treatment. Breakdown pressure 1500 psi, average treating pressure 1800 psi, and average injection rate 52 barrels per minute. Instantaneous shut-in pressure 1200 psi, 10-minute shut-in pressure 850 psi and stabilized shut-in pressure 450 psi in 1-1/2 hours. Opened up well and kicked off flowing. Preliminary test gauge Dakota zone - 18,611 MCFPD through casing. Killed well and set retrievable bridge plug at 6060'. Perforated water and spot acid. Well blew in when tubing was at 2480' and tested 15,580 MCFPD after blowing 17 hours. Killed well with workover fluid losing estimated total of 340 barrels to formation. Ran tubing with Baker full bore packer and set packer at 6053'. Tested bridge plug at 6060' with 2500 psi for 30 minutes; leaked off 200 psi but believed bridge plug holding ok. Retrieved bridge plug. Ran ring gauge. Ran Baker Model "D" production packer with Model "B" expandable plug and set at 5950' as bridge plug. Tested with 3000 psi for 30 minutes which held ok. Ran Cemoton log and found cement fill across Gallup. Ran tubing and displaced workover fluid with oil and spotted 250 gallons MCA. Perforated Gallup 5417' - 5429' and 5436' - 5452' with 4 shots per foot. Sand oil fractured Gallup with 40,000 gallons oil and 60,000 pounds sand. Breakdown pressure 1150 psi, average treating pressure 1500 psi and average injection rate 62 barrels per minute. Killed well and ran 2" tubing with special tubing with special clearance coupling and landed at 5950' with Model "E" seal unit landed in packer. Ran Gallup tubing and landed at 5403'. After testing operations, pulled Gallup and Dakota tubing. Ran full-bore cementer as packer on 2-7/8" drill pipe to test for communication between Dakota and Gallup zones. Test indicated communication outside 7" casing. Ran "DR" plug on drill pipe and set in Model "D" Production packer. Spotted 10 sacks of sand through drill pipe on top of plug. Perforated 5724' - 5725' with 4 shots per foot. Ran Baker full bore cementer as packer and set at 5765'. Tested plug with 3000 psi for 15 minutes which held ok. Squeezed perforations at 5724' - 5725' with 4400 psi and a total of 11 sacks of cement behind the casing and 14 sacks of cement inside casing. Drilled out cement 5674' to 5725'. Ran Baker full bore packer and set at 5690'. Tested squeeze perforations with 2500 psi for 40 minutes and held ok. Reset packer at 5387' and commenced swabbing Gallup. Released packer and displaced mud with oil. Pulled tubing and packer and sand-oil fractured Gallup with 14,000 gallons oil 20,000 pounds sand and sanded off. Breakdown pressure 2200 psi, treating pressure 1800-2500 psi. Average injection rate 46 barrels per minute. Ran Dakota tubing, circulated above packer and landed at 5950' with Model "E" seal assembly in Model "D" packer at 5942'. Installed offset blow-out-preventer and ran Gallup tubing and landed at 5434'. Removed blow-out-preventer and installed xmas tree. After testing discovered communication and found both strings of tubing damaged from rubbing together. Ran tubing with Baker "DR" plug and fullbore packer. Set "DR" plug in Model "D" production packer at 5942' and set full bore packer at 5915'. Tested "DR" plug with 2650 psi for 30 minutes ok. Released packer and displaced mud with oil and pulled tubing and packer. Ran Gallup tubing string and landed at 5418'. Ran rods and pump.

As a result of not obtaining oil in commercial quantities the Gallup formation of Gallegos Canyon Unit No. 85 was plugged and abandoned as follows on August 7, 1960 and well was then completed in the Dakota formation.

Moved in and rigged up pulling unit with reverse drilling equipment July 30, 1960. Pulled tubing and spotted 10 sacks sand on top of DR plug and packer. Ran tubing with Baker full bore cementer set at 5352' and squeezed Gallup perforations 5417'-5452' with 100 sacks cement. Changed out wellhead. Drilled cement plug 5380-5452'. Tested squeeze with 2500 psi. Ran tubing with Baker full bore cementer set at 5332' and resqueezed with 50 sacks cement. Drilled cement plug 5335-5454. Tested with 2500 psi for 30 minutes,

which held with no indication of pressure drop. Cleaned sand to 5912' and displaced water with mud. Ran tubing with Baker retrieving tool and washed over DR plug. Pulled tubing but recovered only control bar leaving main body of plug in packer. Ran Bowen overshot with 3-5/8" grapple and recovered remainder of DR plug on second run. Ran 2-3/8" tubing with Model E seal assembly and landed in Model D production packer at 5942'. Swabbed in well and released rig August 7, 1960. Completed August 14, 1960 as single Shut In Undesignated Dakota Development Gas Well. Preliminary gauge 5496 MCFPD, Pitot Tube measurement after flowing four hours.