

THE BRITISH-AMERICAN OIL PRODUCING CO.

DOUTHIT C-1

SEC. 34-27N-11W

SAN JUAN COUNTY, NEW MEXICO

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1-10-65 The well was producing when it stopped against 500 psi line pressure. It was then blow to atmosphere and died immediately, indicating a casing leak had occurred. Rigged up McCullough and ran casing inspection log from 6370' to 230 feet. Fluid was found at 725 feet from surface. Casing log indicated possible bad casing from 2770 to 4060 feet. Could not locate exact leak. Set cast iron bridge plug at 5710' to isolate dakota zone from water. Plan to move in work-over rig January 12, 1965 and run packer to find leak.

1-12-65 Moved in and rigged up Reams Well Service drive-in rig.

1-13-65 Started up at 8:00 AM 1-13-65. Picked up tubing and run baker full bore packer with tubing, test sub. Ran 103 joints, tried to pressure test tubing. Could not pressure up with test sub closed. Came out testing tool every 10 stands, and found split joint 9 joints above tool. Ran 161 joints tubing back, testing tubing to 3000 psi. Tested ok. Set packer at 5098' and pressured up thru tubing to 2000 psi. Held ok. Set packer at 4110' and pressured up thru tubing to 2000 psi. Held ok. Set packer at 3983'. Pressured up on tubing and pumped into casing leak 4 BPM at 1500 psi. Pressured up on annulus to 2000 psi, held ok. Set packer at 4047', pressured up thru tubing to 2000 psi, held ok. Set packer at 4015', pressured up on tubing and pumped into leak at 4 BPM at 1500 psi. Determined leak in casing at 4041' KB. Pulled tubing and set packer at 2720', preparing to squeeze. Mixed 25 lb. caustic with 25 barrels water spearhead and pumped thru tubing. Mixed 200 sacks Class "C" cement with 2% CaCl₂ and 0.75 percent HOWCO Halad-9. Displaced cement with 25 barrels water, 4 BPM at 1600 psi. Shut down 20 minutes and pumped in 1/2 barrel cement to 750 psi. Shut down one hour, pumped 1 barrel in to 1000 psi, bled back to 350 psi. Shut down 1 1/2 hours, pumped in 1 barrel to 1000 psi, bled back to 500 psi. Shut down 2 hours, pumped in 1/2 barrel to 2000 psi, held to 2000 psi for 10 minutes. Squeezed off at standing pressure 2000 psi. Left 3 barrels cement in pipe or 14 sacks cement. Closed in wellhead at 4:00 PM 1-14-65. Will wait 18 hours before drilling out and 24 hours before pressure testing casing. Estimated 190' of cement left in 4 1/2" casing.

1-14-65 WOC 12 hours. Rigged up and ran 121 joints 2" EUE tubing with 3-3/4" bid. Drilled cement from 3767 to 4041'. Circulated and cleaned up hole. Pressure tested casing to 2000# for 30 minutes. Held ok. Pulled tubing and bit. Now rigging up McCullough to run cement bond log.

1-15-65 Ran cement bond log from 4500 to 2950' KB. Top of cement at 3100' KB. Rigged up and shot 2 squeeze holes at 3040' KB. Ran 83 jts. 2" EUE Tubing and Baker Full bore packer, set at 2631' KB. Broke down at 1200 psi, rate 5 BPM. Mixed 25 lbm Caustic in 25 barrels water. Pumped to formation at 1000 psi. Mixed 200 sacks Class "C" cement with 2% CaCl₂ and 0.75% Halad-9. Displaced cement with 12 barrels water at 5 BPM at 1000 psi. Shut down 1 hour. Displaced 1 barrel, pressure to 500 psi. Staged 4 additional times and obtained standing pressure of 1700 psi. Shut in for 4 hours. Pulled tubing and packer.

1-16-65 Drilled cement from 2950 to 3040' KB. Pressure tested casing to 2000 psi, held ok. Drilled bridge plug at 5710' and cleaned out to 6477' KB.

1-17-65 Rigged up and ran 1 - 2" x 7' slotted nipple and 202 joints 2" EUE 4.70# J-55 8-R Thd. tubing, total 6370.33', landed at 6380.33'. Swabbed tubing 13 hours and well kicked off at 3:00 AM 1-18-65.