

While drilling, had lost circulation from 140' to TD, had caves and broken rock from 190' to 375'. Tried to run casing 5-9-69. Stuck at 190'. Reamed out top 3-400 feet several times with no results. Placed 8 8Yd batches of ready mix from 219' -164'. WOC 24 hrs & drilled out. On 5-14-69, 11:30 p.m. ran 9 5/8" casing to TD 2706' with baskets at 2200', 1700', 1200' & 700'. Fluid level at about 285 feet. Started cement as follows: 300 sx class C, 50-50 POZ, 4% gel, 25# gilsonite & 1/4# flocele; 650 sx class C, 50-50 POZ, 4% gel, 1/4# flocele & 150 sx class C. All cement had 8# salt to the sack. After pumping about 800 sacks, the hole bridged and shut off. Nippled up, drilled out cement and took temperature survey. Top of cement at 2320'. On 5-15-69 perforate 7 holes at 1880'. Tried to break circulation with water. Pressures indicated bridge above perfs. Ran free point which indicated pipe free to 1550 feet. Cement with 40 sx class C, 50-50 POZ, 4% gel, 1/4# flocele, 8# salt, 2% Ca Cl₂ & 110 sx class C, 50-50 POZ, 8# salt, 2% Ca Cl₂, plug down about 10 p.m. 5-16-69. Top cement by temperature survey, 1540'. Perf. 9-5/8" casing at 1100 with 5 holes and cement with 900 sx class C, 50-50 POZ, 4% gel, 1/4# flocele, 2% Ca Cl₂, plug down about 11 p.m. 5-16-69. Top by temperature survey, 600 feet. Ran 1" tubing to 675 feet & tagged cement. Pulled up to 652' and cement with 100 + sx class C, 4% Ca Cl₂, 75# flocele, 12:01 p.m. 5-17-69. Tag cement at 470'. Pull up to 452' and cement with 100 - sx class C, 4% Ca Cl₂, 37# flocele, 3:00 p.m. 5-17-69. Tag cement at 440'. pull up to 417 and cement with 100 + sx class C, 4% Ca Cl₂, 75# flocele, 5:40 p.m. 5-17-69. Tag cement at 374'. Pull up to 359' and cement with 60 sx class C, 4% Ca Cl₂, 25# flocele, 8:00 p.m. 5-17-69. At 10:10 p.m. tag cement at 374', no fill. Filled hole to surface with 47 1/2 yards ready mix. Job completed 7:30 a.m. 5-18-69.