Record of Drill Stem Tests

5200" TD. Ran Drill Stem Test with packer set 3 5166", Perforations: 5167"-5198", 5/8" bottom and 1" top chokes. Tool open 7:55PH with gas to surface in 13 mins. at est. rate of 15M per day No fluid to surface. Tool closed 9:55PH at end 2 hr. test for 15 min. build up. Rec. - 360" oil, gty. 37.8 corr., 90" oil and gas cut mud, no free water. Howco pressure: 2600#-Hydro, flow pressure - 100#, build up press.-1200#. Amerada Bomb: Hydro in 2600#, out-2620#, flow - 65#-105#, build up-1285#.

- 6-13-48 5630' TD Ran Drill Stem Test w/ packer set @ 5618', Perforations: 5618'-30', 5/8" bottom and 1" top chokes, opened tool at 2:40AH with fair blow of air that gradually decreased and quit at 3:20AN, tool closed at 4:20AH, hole lost mud at rate of 1" every 3 mins., did not wait for build up, Rec.-94' drilling fluid, no gas or oil, Hydro in 3100#, out-2800#, Flow pressure 550#, final pressure 2 XO#. Amerada Chart broken, did not record.
- 6-16-48 5716' TD Ran Drill Stea Test w/ packer @ 5680', Perforations: 5714'-5682', 5/8" bottom and 1" top chokes. Tool opened at 4:30AM. Gas to top in 55 mins. Vol. too small to measure. Small amount of gas throughout test. Tool closed at 7:20AM for 15 min. build up. hydro. press.-2865#, out-2770#, Flow press.-Hin.-100#, Hax.-115#. 15 min. build up 625#. Rec.- 285' oil & gas cut drilling mud, no water
- 6-17-48 5726' TD Han Drill Stam Test W/ packer set @ 5716', Perforations: 5718'-5724', 5/8" bottom and 1" top chokes. Opened tool @ 5:45AM, small blow of air immediately. Small air bubbles throughout test. Tool closed @ 9:45AM for 15 min. build up. Hec.-80' drilling mud w/ strong odor of sulphur, no gas no oil, no water. Halliburton Press.- Hydro in 2900#, out-3000#. Amerada Press.-Hydro in 2800#, out-2770#, flow press.-35#-40#. 15 min. build up 85#.
- 6-18-48 5768' TD Ran Drill Stem Test w/ packer set @ 5725', Perforations: 5726'-27', 5736'-66', 5/8" bottom and 1" top chokes, tool opened @ 1:04AM 6-19-48, small blow air bubbles throughout test closed tool @ 5:04AH out at 7AM, Rec.- 145' of drilling mud, inst 20' of mud slightly sulphur water cut, Hydro press.-2850#, out - 2800#, flow press. 0#, build up press. did not record.
- 6-30-48 6375' TD Ran Drill Stem Test w/ Packer set @ 6345', Ferforations: 6346'-73', 5/8" bottom and 1" top chokes. Tool open 4:52PM w/ faint to weak blow air 38 mins. Tool closed 6:30PM at end 1 hr & 38 min. test. Did not take build up. Rec.-84' drilling mud, very foul odor, Howco: in & out 3325#, Flow pressure 150#, Amerada: Hydro in & out - 3210#, flow 35#.
- 7-4,-48 6559' TD Ran Drill Stem Test w/ proker set @ 6480', Perforations: 6540'-6556', 5/8" bottom and 1" top chokes. Tool open 4:20PM w/ immediate blow air and gas in 35 minutes. Light blow gas for remainder 4hr. test but not enough to measure. Tool closed 8:20PM for 15 min. build up. Rec.-270' mud slightly cut with oil & gas and 1110' of sulphur water. Howco: hydro in - 3300#, out-3250#, min. flow 100#, max - 750#, 15 min build up 2600#. Amerada Bomb: hydre in 3260#, out 3240#, min. flow 90#. Max.-720#, 15 min. build up pressure - 2570#.
- 7-9,10-48 6855' TD Ran Drill Stem Test with packer set @ 6809'.Perforations: 6827'-6852', 5/8" bottom and 1" top chokes. Tool open 4:10AM with small blow air insediately. Very faint blow air at 7:00AH Tool closed at 8:10AM w/ faint blow air bubbles. Rec.- 277' maid, no oil or water, mud on bottom had strong sulphur odor. Hydro in 3500#, out-3500#, flow-0#-100#, 15 min. build up 500#, Amerada: Hydro in 3515#, out 3490## flow 0#-150#, 15 min. build up pressure - 380#
- 7-14,15-48 7109' TD Ran Fill Stem Test w/ packer @ 6969', Perforations: 7088'-7106', 5/8" bottom & 1" top chokes. Tool open 6:20PM w/ gas to surface in 3 min. In 10 min. gas 581M per day; at end of 4 hrs 217M, average gas 288M. No fluid to surface, Tool closed 10:20PM for 19 min. build up at end 4 hr test. Rec.-32' gas cut mud. Howco Press.-Hydro in 3595%, out-3570%, flow-200% dropped to 100% 19 min. build up 1270%

Sheet #1

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