

RECORD OF DRILL STEM TESTS

1-1-49

3020' TD, Ran Drill Stem Test #1 w/ Packer set @ 2928', Perforations: 2929'-30' & 2990'-3015', tool opened @ 3:14PM. 3/8" bottom and 1" top chokes. Gas to surface in 1 minute. Mud to surface in 1-1/2 mins. Made 2 bbls mud first hr. then dry gas. Tool closed @ 7:14PM for 1/4 hr B.U.P. Did not record. Gas Vol: 1,524,000 cu.ft. per day. Howco: Hydro in 1600#, out-1600#, Initial flow press. 525#, Final flow press. 425#, 1/4 hr B.U.P. 1200#. Amerada Chart: Hydro in 1620#, out-1620#, Initial flow press. 445#, Final flow press. 380#, 1/4 hr B.U.P. 1210#.

1-2-49

3105' TD, Ran Drill Stem Test #2 w/ Packer set @ 3020', Perforations: 3021'-22' and 3084'-3100', 3/8" bottom and 1" top choke. Tool opened @ 1:27AM. Gas to surface in 3 mins, Mud to surface in 5 mins, made 1.38bbls mud 1st hr. No more fluid for remainder of test, Tool closed @ 5:27AM for build up. Started out with gas volume 895,600 cu.ft. gas per day, gradually decreased to 879,000 cu.ft. gas. Recovered 120'  $\phi$  mud, slightly gas cut. Howco: Hydro in 1650#, out-1650#, Initial flow press. 425#, Final flow press. 350#, 1/4 hr B.U.P. 1300#. Amerada Chart: Hydro in 1715#, Hydro out 1715#, Initial flow press. 455#, Final flow 320#, 1/4 hr. B.U.P. 1350#.

1-4-49

3220' TD, Ran Drill Stem Test #3 w/ Packer set @ 3105', Perforations: 3206'-07' and 3197'-3215' w/ 5/8" bottom and 3/8" top choke, tool opened @ 7:10PM, Gas to surface in 2 mins, Mud to surface in 2 1/2 mins. Made 2.76bbls mud 1st. hr. and 2.76bbls mud 2nd hr. no recovery 3rd and 4th hours of test. Recovered 15' salt water. Gas Volume 1,710,000 cu.ft. per day. Tool closed @ 11:10PM for 1/4 hr B.U.P. Howco: Hydro in 1830#, out-1790#, Initial flow 1130#, 1/4 hr B.U.P. 1300# on bottom and drlg. @ 2:40AM.

1-7-49

3360' TD, Ran Drill Stem Test #4 w/ Packer set @ 3219', Perforations: 3220'-21' and 3340'-54', 3/8" bottom and 1" top chokes, Tool opened @ 9:04AM. Good blow of air at once. Gas to surface in 2 mins. Mud in 5 mins, Closed tool @ 1:04PM for 1/4 hr B.U.P. Gas Volume 585,200 cu.ft. per day. Recovered 290' of gas cut  $\phi$  mud, Howco: Hydro in 1980#, Hydro out 1870#, Min. flow 275#, Max. flow 300#, 1/4 hr. B.U.P. 0#. Amerada Chart: same as above.

1-8-49

3460' TD, Ran Drill Stem Test #5 w/ Packer set @ 3360', Perforations: 3361'-62' and 3452'-3457', 3/8" bottom and 1" top choke, Opened tool @ 3:05AM, had fair blow air for 25 mins and died. Tool open 1 hr and 25 mins. Closed tool @ 4:30AM for 1/4 hr B.U.P. Recovered: 25' drlg. mud, no gas or water, Howco: Hydro in 2000#, out-2100#. Flow press. 0#, 1/4 hr B.U.P. 0#. Amerada Chart: Hydro in 1750#, out-1750#, flow press. 0#, 1/4 hr. B.U.P. 0#.

1-9-49

Ran Schlumberger Electrical Survey and Gamma Ray Survey.