

Record of Drill Stem Tests

State AW # 2

Drill Stem test No. 1: Test 10385' to 10411 (26') Packer failed.

Drill Stem test No. 2: Tested 10382' to 10411' (29') Wolfcamp; tool open 6½ hrs. TC 1", BC 1" Air immed. gas 17 min., oil 3 ¾ hrs. Tool opened w/good blow decreased to weak blow after gas to surface. Filled flow line (9 bbls.) in 1 hr. Next hr. flowed 4.125 bbls. oil, rest gas. Recovered from drlg. pipe 3450' oil (49 bbl.) 6750' gas & 120' oil (1.7 bbl.) below circ. sub. total oil recovered 53 bbls. 6.1 MCF gas. GOR 31 gas sweet. Gravity 40.9 Surface flowing Pressure 0 to 50# IFP 255#, FFP 1705#, 30 min. SIP 2750#, MCP 4935#.

Drill Stem test No. 3: Tested 10626' to 10673' (47') Wolfcamp. Tool open 50 min. TC 1", BC 5/8" Air immediately. gas in 6 min. Packer failed after 40 min. Reversed out 2600' gas, 350' (5 bbl.) oil cut mud, 7350' (52 bbl.) gas cut mud. SFP 0-17#.

Drill Stem test No. 4: Reset Packers from DST # 3. 10600 to 10673 tested (Lower Wolfcamp) Tool open 4 hrs. 50 min. TC 1", BC 5/8", Air to surface immed., gas in 7 min., oil in 2 hrs. 7 min. flowed to tanks 31.65 bbls. oil, no water 2 hrs. Gravity 39.3 gas sweet gas rate 615.1 MCF/day. GOR 1625. Reversed out 700' (10 bbls.) Fluid to pfts, 9600' gas. Recovered 180' gas cut mud below circ. sub. SFP 0-75#, IFP 320#, FFP 855#, 60 min. SIP 3925# MCP (in) 5035#, (out) 5010# (Last hour flowed 13.8 bbls. oil).

Drill Stem test No. 5: Tested 11489 to 11558 (69') Strawn. Tool open 4½ hrs. TC 1", BC 5/8", Air immed., gas 6 min., oil 62 min. Flowed to tank, 1st hr. 35.75 bbl., 2nd hr. 27.5 bbl., 3rd. hr. 24.75 bbl. (total 88 bbls.) cut 7/10 of 1% BS. Gas rate 140.5 MCF/day. Sweet gas. GOR 1597, oil gravity 44.4, Surface Pressure 150#. Reversed out 1150 ft. (16.5 bbls.) oil, 10,000 ft. gas, plus 270 ft. (3.8 bbl.) oil & cut mud below circ. sub. IFP 625#, FFP 1340#. Shut in 45 min. 3855# MCP 5535 in, 5425# out.

Drill stem test No. 6: Tested 13636 to 13665. (29') Dev. Tool open 6 hrs. 55 min. TC 1", BC 1" 2500' water blanket. Tool opened w/fair blow. Air to surface immed. gas in 3 hrs., 10 min., mud 4 hrs. 45 min., oil 4 hrs. 50 min. Flowed 34.85 bbls. oil 2 hrs. 5 min. cut 2/10 of 1% sweet BS, gas 3.74 MCF/day. GOR 8.74, gravity 55.75. Reversed out 151 bbls. fluid being 1940' (27.5 bbls.) water, 8710' (123.5 bbls. oil). Recovered 180' (1.44 bbl. oil) under circ. sub. Surface flowing pressure 0-2-# IFP 1425#, FFP 4450#, 30 min. SIP 5305# MCP 6485# (total oil 159.79 bbls. 6 hrs. 55 min.)