

DEFLECTION TESTS:

<u>FOOTAGE</u>	<u>DEGREES</u>	<u>FOOTAGE</u>	<u>DEGREES</u>	<u>FOOTAGE</u>	<u>DEGREES</u>
150	3/4	6390	1/4	9740	1/2
300	3/4	6520	1/4	9817	3/4
370	1	6610	1/2	9925	3/4
600	1-1/4	6735	1	9990	1/2
860	3/4	6890	3/4	10085	1/4
1215	3/4	7020	1	10120	3/4
1680	3/4	7135	1/2	10225	3
1850	3/4	7235	1/2	10250	3/4
2060	3/4	7330	3/4	10320	1
2280	1	7440	1/2	10435	1/2
2480	1	7640	1/2	10505	1/4
2680	3/4	7715	1/2	10551	1/2
2895	1/4	7910	1/2	10630	1/4
3090	1/2	8035	1/4	10680	1
3300	3/4	8215	1/4	10725	1-1/2
3500	3/4	8315	1/4	10765	2
3800	1	8410	1/4	10792	2
4000	1-1/4	8498	1/2	10825	2
4120	1	8650	1/2	10870	2-1/4
4310	1	8730	1/2	10925	2-1/2
4642	3/4	8840	1/2	10975	2-1/4
4735	1	9020	0	11010	2-1/2
4855	1	9080	1/2	11050	2-1/4
4955	3/4	9180	1/2	11100	2-3/4
5180	1	9330	1/2	11150	2-1/4
5300	1	9390	1/2	11190	1-3/4
5490	1-1/4	9460	3/4	11250	1-3/4
5680	3/4	9520	1/2	11345	1-3/4
5995	3/4	9610	1/2	11385	2
6220	1/4	9700	3/4		

DRILL STEM TESTS:FROM: TO:

DST # 1

10470' 10550' 5/8" bottom and 1" top chokes, opened tool, had strong blow air at once, gas to surface in 4 minutes, mud in 15 minutes, clean oil in 27 minutes. Flowed to test tank 80 minutes. First 20 minutes 28.9 barrels oil; 2nd 20 minutes 23.3 barrels oil; 3rd 20 minutes 23.3 barrels oil; 4th 20 minutes 20 barrels oil; total 97.5 barrels oil, average rate 73 barrels per hour, shake-out 1% mud, gravity 40.8 deg. at 60 deg., GOR 1190 CF/B. Reversed out 34 barrels oil to test tank, pulled tool, recovered 30' clean oil below circulating sub, no water. Flowing pressure max. 2365#, final 1840#. Hydrostatic pressure 5345#, 25 minute shut in pressure 3580#.

DST # 2

10550' 10592' 1" top and bottom chokes, opened tool, had strong blow air immediately, gas to surface in 4 minutes, mud to surface in 20 minutes, clean oil in 25 minutes. 1-1/2 hours flowed to test tank. First 30 minutes 24.8 barrels oil; 2nd 30 minutes 20.7 barrels oil; 3rd 30 minutes 16.5 barrels oil, total 62 barrels oil, average rate 41 barrels per hour, shake-out 4/10% mud, gravity 41.1 deg. at 60 deg., GOR 1685 CF/B. Reversed out 21 barrels oil from drill pipe, 25 minutes shut in pressure 3090#, Hydrostatic pressure 5156#, flowing pressure 1350#. Recovered 30' clean oil below circulating sub.

DST # 3

11390' 11492' 1" surface, 5/8" bottom chokes, 1500' water blanket, tool open 2 hours 50 minutes, had slight blow air when tool opened, decreased to no blow in 10 minutes. Waited 40 minutes closed and re-opened tool, had slight to fair blow air in 40 minutes, increased to good blow in 55 minutes and decreased to no blow in 1 hour 20 minutes. Pulled tool recovered 1500' water blanket, lower 750' gas cut, 40' gas cut muddy water and 30' gas cut mud. Flowing pressure, initial 600#, final 600#, Hydrostatic pressure 5640#, 26 minute shut in pressure 740#.

DST # 4

11408' 11599' 1" surface and bottom chokes, 1500' water blanket, tool open 1 hour and 45 minutes. Light blow air when tool opened, decreased to no blow in 21 minutes. Waited 30 minutes after blow died, closed and re-opened tool, no blow. Waited 54 minutes, no blow and shut tool. Pulled tool, recovered 1500' water blanket, 180' very slightly gas cut mud. Flowing pressure 730#, Hydrostatic pressure 5585#, 25 minute shut in pressure 1190#.