

Attachment - 3-105

Gulf Oil Corporation - Graham State "F" No. 7-0, 36-19-36

RECORD OF STIMULATION

3-14-55 - Washed perforations in 7" casing from 5615-5650' with 500 gallons mud acid. Reversed acid out.
3-16-55 - Treated perforations in 7" casing from 5615-5650' with 2000 gallons 15% NE acid.
3-22-55 - Washed perforations in 7" casing from 5694-5722' with 250 gallons mud acid. Reversed acid out.
3-22-55 - Treated perforations in 7" casing from 5694-5722' with 2000 gallons 15% NE acid.
3-27-55 - Treated perforations in 7" casing from 5694-5722' with 3000 gallons acid frac, 2/3# sand per gallon.
4-15-55 - Treated perforations in 7" casing from 5656-5682' with 5000 gallons Vi-so (lease crude with gel) frac, 1# sand per gallon.
4-24-55 - Treated perforations in 7" casing from 5250-5280' with 2000 gallons 15% NE acid.
4-27-55 - Treated perforations in 7" casing from 5145-5280' with 500 gallons Jel Jet 99 and 4000 gallons 15% NE acid.
5-23-55 - Treated perforations in 7" casing from 5145-5175' with 5000 gallons acid frac with ATO Jel agent and 1# sand per gallon.

CEMENT SQUEEZE JOBS

3-18-55 - Set Howco DM cement retainer at 5500'. Squeeze cemented thru perforations in 7" casing from 5650-5615' with 250 sacks cement. TP 2500#.
4-9-55 - Set Baker cement retainer on wire line at 5688' - Ran 2-3/8" tubing. Squeeze cemented thru perforations in 7" casing from 5694-5722' with 93 sacks regular cement. TP 3000#. Back washed 7 sacks cement.
5-14-55 - Set Baker cast iron cement retainer on wire line at 5182'. Ran 2-3/8" tubing. Squeezed cemented thru perforations in 7" casing from 5190-5225' and 5250-5280' with 233 sacks regular cement in 3 stages. Maximum TP 1800#. Reversed out 31 sacks cement.

DEVIATIONS - TOTCO SURVEYS

1/4 - 200'	1/4 - 3415	1-3/4 - 4950
1/2 - 640	1 - 3550	1-1/2 - 5010
3/4 - 950	3/4 - 3670	2-1/2 - 5070
1 - 1220	1/2 - 3700	2-1/2 - 5100
3/4 - 1940	1/4 - 3718	1-1/2 - 5125
1-1/4 - 2023	3/4 - 4000	2-1/4 - 5160
2 - 2270	1 - 4100	2-1/2 - 5245
2-1/2 - 2340	3/4 - 4180	2-1/4 - 5275
2 - 2400	3/4 - 4365	3 - 5375
1 - 2515	1 - 4440	3 - 5410
2 - 2555	1 - 4530	3 - 5470
1/2 - 2640	1-1/4 - 4600	3-1/4 - 5500
1/4 - 2770	1-1/4 - 4715	3 - 5560
3/4 - 2940	2 - 4790	3 - 5580
1/4 - 3240	2-1/4 - 4840	3-1/4 - 5610
1/2 - 3310	2 - 4900	

DRILL STEM TEST

No. 1, 3-10-55 - 2 hour Johnston drill stem test from 5600-5725'. 5/8" surface choke, 5/8" choke at 5576'. Packers at 5594' and 5600'. Bombs at 5723' and 5725'. Tool opened 1:05AM. Gas to surface in 28 minutes, TSM. No fluid to surface. Recovered 120' slightly oil and gas cut mud, 3% oil, no water. HP 2500#. FP 25-35#. 15 minute 3HP 175#.