

Al-Ayen University

Petroleum Engineering College

Drilling Engineering 2

Fourth year

(((Pressure loss calculations - Exercises)))

Associate Prof.Dr. Najeh Yousef Alali

Lecture (8)

Solve the following matter:

Choose the required pumps for drilling the well if you know:

- the distance from mud pump out to swivel equals to 400 m and pressure loss 0.01 atm/m
- drill pipes 20 stands, pressure loss 0.0085 atm/m
- heavy weight drill pipes 600 m, pressure loss 0.0075 atm/m
- drill collars 250 m, pressure loss 0.006 atm/m
- needed pressure in bit: 20 atm/nozzle
- return line till mud pump in 250 m and pressure loss 3 atm
- * show the calculation results on curve.

Note: mud capacity available:

(30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120)

Solve the following matter:

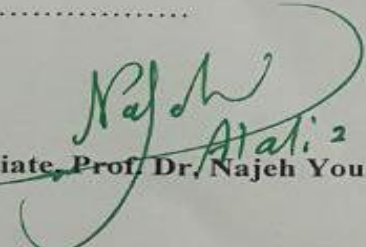
Choose the required pumps for drilling the well if you know:

- the distance from mud pump out to swivel equals to 400 m and pressure loss 0.01 atm/m
- drill pipes 25 stands, pressure loss 0.0085 atm/m
- heavy weight drill pipes 600 m, pressure loss 0.0075 atm/m
- drill collars 250 m, pressure loss 0.006 atm/m
- needed pressure in bit: 24 atm/nozzle
- return line till mud pump in 250 m and pressure loss 3 atm
- * show the calculation results on curve.

Note: mud capacity available:

(30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, 120)

.....Good Luck.....


Associate Prof. Dr. Najeh Yousef Alali