Air Drilling Course

Supervisory and Fundamental Levels

4 Hr Air Drilling
Review the characteristics of Air drilling and advantages of drilling with air versus drilling with fluids
Review the types of Air drilling including: Dust, Mist, Foam and Aerated
Understand uses and limitations of Air drilling
Understand Dust Drilling overview and equipment specifically used in Dust drilling
Understand Mist drilling overview and equipment specifically used in Mist drilling
Understand Foam drilling overview and equipment specifically used in Foam drilling
Understand Aerated drilling overview and equipment specifically used in Aerated drilling
Discuss Blooie lines, well barriers, float valves and downhole fires
Air drilling well control: main issues and considerations; understand how this differs from well control during conventional fluid drilling
Understand that flaring can be classified as flow management; differentiate between flow management and Air drilling well control; understand that this differentiation can be based upon hole section and equipment configurations that determine the influx response options
The following field calculations will be performed to support the case histories: Hydrostatic and Formation pressure, Kill weight fluid, Drillpipe, Annular, Tubular capacities and volumes, Strokes
Case History: Rig encounters extremely high increases in flow at the blooie line; Conduct safety meeting; Demonstration/Simulation
Case History: while drilling ahead, multiple influxes are encountered; blow down the well or kill the well with fluid; Conduct safety meeting; Demonstration/Simulation
Case History: Shut in the well, circulate again and kill the well; Conduct safety meeting Demonstration/Simulation
Course review and final written test
Completion of course