

5.3 Methods for drilling **Deep Wells**

- Cable tools Methods → percussion M
- Rotary Methods Table 5.3.2

Standard specification Fig 5.3.1-

Cable tool methods (percussion methods)

Fig 5.3.3

Rotary Methods (Fig 5.3.5)

air rotary Methods

Rotary – percussion Methods

Reverse – Circulation Rotary Methods

5.4 Well completion

placement of casing → materials

cementing of casing

placement of well screen → diameter Table 5.4.1

gravel packing Table 5.4.4 Table 5.4.2 velocity

5.5 Well development

Pumping

Surging

Surging with air

Back washing with air

Hydraulic Jetting

Chemicals

Hydraulic Fracturing

Explosives

Exercise

Assumed a discharge for well design.

Show (a) the calculation procedure and (b) the design values to meet with the discharge required.

Discuss also © the construction method to be used.