e) Use properly designed fittings for the purpose of temporarily closing the openings in pipelines to be tested. Use fittings adequately strutted to withstand the pressure specified.

f) Where multiple pipelines are laid in common trench, test only one line at any one time.

g) The pipeline shall be thoroughly cleaned prior to testing.

h) Ensure that gauges used for testing pipelines have a dial diameter of not less than 100mm and a full scale reading not greater than twice the specified test pressure. Before any gauge is used, arrange for independent laboratory to check the accuracy of the gauge. Provide a dated certificate of its accuracy to the Engineer.

i) Before pressure testing commences pipes and valves shall be rechecked for cleanliness and the operation of all valves shall be rechecked. The open ends of the pipeline, or sections thereof, shall be blanked off and additionally secured where necessary by temporary struts and wedges. All anchor and thrust blocks shall be completed and all pipe straps and other devices intended to prevent the movement of pipes shall be in place.

j) During summer months all pressure testing shall be carried out when ambient temperatures are at their lowest in order to avoid excessive stresses on the pipe during testing. Exposed areas of pipe in trenches, such as at joint locations, shall be shaded during hydraulic testing at all times throughout the year.

k) The fill and test position shall be located at the lowest point of the pipeline profile to encourage the expulsion of air as the pipe is being filled. Adequate air release mechanisms shall be sited at all high points. An air bleed shall be incorporated as close to the crown of the pipe at the highest point and at each end of the test section.

l) The pipeline shall be filled taking all appropriate precautions to avoid air entrapment as the presence of air could invalidate the test. The pipeline shall then be left to stabilize for a minimum of 3 hours and air released as necessary by opening the bleed valves.

m) Visually inspect all exposed pipe, fittings, valves and joints during the tests