

6. SUMMARY & RECOMMENDATIONS

Based on the field and laboratory tests and the foregoing discussion the following are summarised.

1. The subsoil is characterised by medium to stiff silty clay / clayey silt followed by very stiff to hard silty clay / clayey silt layer. After that dense to very dense silty sand with clay binder is observed. Then, weathered rock layer is struck and that continues upto the terminating depth of all the boreholes.
2. Five nos. (5) Plate Load Tests were conducted around plant area (2 nos. are of routine type & rest 3 nos. are of cyclic type). The safe load & corresponding plate settlement, subgrade modulus & settlement for foundation and the dynamic properties using the elastic rebound as we obtain from CPLT-01 to 03 have been discussed in the Section 5.1.
3. **Use of Open Foundation:** The recommended bearing capacity values at different depth of foundation are presented in Section 5.04.
4. The discussion on swelling characteristics is given in Section 5.05.
5. Chemical tests were carried out on few soil and water samples so as to detect the **pH value, Sulphate, Chloride etc.** It is seen that the values are on a safe side. So, any cement can be used for foundation concrete. **Either Ordinary Portland cement or Portland slag cement or Portland Pozzolana cement can be used for the purpose.**
6. The suitability of existing soil for filling and back-filling is given in Section 5.10.
7. The suitability of soil for construction of roads & pavement is discussed in Section 5.11.
8. Geological logging of the rock samples for the zone of investigation is presented in Section -7.

9. 10 (Ten) nos. ERT were performed at the site and the test results are discussed and presented in Section -8.
10. 5 (Five) nos. Cross Hole Test was performed at the site and the test results are discussed and presented in Section-8. For dynamic properties of subsoil strata, Cross Hole Shear test results shall be referred. Further the values of poisson's ratio, dynamic young's modulus and shear modulus are also mentioned there.

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