

**MATERIAL TESTING FOR SOIL, AGGREGATE AND  
ASPHALT BEING USED IN ROAD CONSTRUCTION  
OF CPEC ROUTE ALONG PINDI GHEB TO TARAP,  
PUNJAB, PAKISTAN**



A thesis submitted to Bahria University, Islamabad in partial fulfillment  
of the requirement for the degree of B.S in Geology

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## **ABSTRACT**

The study area is part of Potwar Basin. The study objectives consist of evaluation of material testing for soil, aggregate and asphalt being used in road construction of CPEC route along Pindi Gheb to Tarap, Punjab, Pakistan. During field investigation different test pits were excavated as per project's specification along the purposed road alignment. Sub grade material falls in class A-1b. The liquid limit of sub grade material for soil testing is 24% while Plastic limit is 20%. The Plasticity Index (PI) is 4.0 % while above layers is non-plastic. The maximum dry density for sub grade is 2.632 gm/cc at moisture content 10.2%. Using lab density CBR value was calculated for sub grade is 31.0%. The specific gravity for oven dry sample is 2.679 while apparent specific gravity is 2.725. The water absorption was 0.62%. The Sand Equivalent test shows the specific limit 75% Min. The Bitumen by weight of 3.55% and the compaction of Asphalt is 96%.

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