

TESTING SUMMARY



The School of the Built Environment Coventry University Stormceptor® Report

Summary: The School of the Built Environment, Coventry University assessed the performance of a full scale Stormceptor®* under steady flow conditions (9 l/s) with the addition of oil and inorganic/organic sediment. The tests were conducted to investigate the Stormceptor®'s effectiveness for oil retention and sediment trapping. The test was conducted in May-August 1996. A summary of the test follows:

- **Oil removal = 97.8%**
- **Inorganic sediment removal = 83%**
- **Organic sediment removal (peat) = 73%**

Methodology: Two flow tests were performed on the Stormceptor® in accordance with the draft European Standard pr#N858-1:1992 for oil retention. Oil was added continuously during each test at a rate of 5 ml/l (4100 mg/l). Tests were conducted to assess the trapping efficiency for sand added at a rate of 210 mg/l (three flow tests) and with peat added at a rate of 154 mg/l (one flow test). These concentrations are thought to be typical of highway stormwater runoff in moderate/highly polluted conditions.

The results obtained showed that the Stormceptor® was capable of limiting the through-flow of oil to approximately 90 mg/l (mean of 10 samples with a standard deviation of 8.7 mg/l). This performance complies with that required of Class 2 Oil Interceptors in the UK, limiting the through-flow of oil to less than 100 mg/l.

Project Details: Oil was introduced upstream of the unit at a consistent rate of 4100 mg/l for a 20 minute period. Samples were taken at the outlet during the last five minutes to determine the oil removal performance. The same procedure was also performed with inorganic sediment (sand, S.G. = 2.2) and organic sediment (peat, S.G. = 0.45).



The first series of tests in the United Kingdom on the Stormceptor® provide indicate the potential effectiveness of the product for oil and sediment removal from stormwater.