

TEST SUMMARY

Test Objective: To confirm compliance of treated and untreated diesel samples from all S.A Refineries to SABS 342 and the integrity of the catalyst – “ Fuel Effect” in the above diesel.

Test Period: December 2003 to APRIL 2004

Sample Tested: Ex-all Refineries in South Africa

Sample Identification: a) DIESEL
b) MOBIL DELVAC 1413 40 (Diesel Engine Oil)

Test Location :a) EUROTYPE in East London
b) SABS Laboratory in Pretoria
c) WEARCHECK Laboratories in Durban
d) SPECTRACARE Laboratories in Johannesburg

Test Method: a) **EUROTYPE** – Emissions Tests using Euro 3
ETC, ELR and ESC

ETC = European Transit Cycle

ESC = European Stationery Specification

ELR = European Load Response

Findings were on:

Nox = NITROGEN OXIDE, NITROGEN DIOXIDE AND DINOTROGEN OXIDE

CO = CARBON MONOXIDE

CO2 = CARBON DIOXIDE

HC = HYDROCARBON

PM = PARTICULATE MATTER

- b) **SABS** - Test against SABS 342 on both treated and untreated samples
- c) **WEARCHECK** – Tests on used oil sample drained after every run
- d) **SPECTRACARE** – Sulphur and Oxidation Stability tests on all diesel samples on behalf of SABS

Test Procedure: Each diesel sample was tested in a clean engine and the oil was subsequently drained after each test.
The samples were tested randomly and the results recorded accordingly.
All diesel samples were tested in the SABS Lab. All tests were done at all venues under supervision of an Auditor. The used oil samples were tested at WEARCHECK

Findings:

- a) The treated samples showed a notable improvement on:
 - i) All toxic emissions from the exhaust
 - ii) Smoke and smoke capacity
 - iii) Consumption based on measuring unit PLU 121-300

- b) Treated samples results did not change the structural formation of diesel as they passed the SABS 342.

Conclusion: The treated samples performed better environmentally, on consumption and emissions which leads to identifiable and quantitative benefits with the addition of the product