



EARLY WARNING

Example Customer
Hatchwood Place
Farnham Road
Odiham, Hampshire RG29 1AB

For the attention of
Telephone
Fax
Laboratory Report Reference SPM53365
Laboratory Report Date 21-Jan-15
Receipt Date 19-Jan-15
Sample Date § 08-Jan-15
Sampling Point § crank case

Equipment Information
Vessel §
Description § Main Engine PORT
Manufacturer §
Model §
Serial Number §
Customer Reference §
Unique Code AAA.0001
Oil Grade §
Unit Life § -
Oil Life § 150

Comment

Locate and correct source of FUEL DILUTION. The oil has been contaminated with fuel, maybe from incomplete fuel combustion due to dirty or incorrectly set fuel injectors or a worn or incorrectly set fuel pump. Check the fuel system Locate and correct condition causing oil to be too 'THIN' or of low VISCOSITY. Take check sample and monitor closely.



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| Sample Number | | | | | | 1 | 2 | 3 | 4 |
|--------------------------------|----------|--|--|--|--|-----------|-----------|-----------|------------|
| Analysis Date | | | | | | 28-Jan-13 | 09-Aug-13 | 06-May-14 | 21-Jan-15 |
| Sample Date § | | | | | | 14-Jan-13 | 29-Jul-13 | 16-Apr-14 | 08-Jan-15 |
| Ticket Number § | | | | | | 53271 | 69994 | 80154 | 98157 |
| Lab Reference | | | | | | SPM36855 | SPM40616 | SPM46688 | SPM53365 |
| Unit Life § | | | | | | 563 | 759 | 127.6 | 1150 |
| Oil Life § | | | | | | 250 | - | - | 150 |
| Sampling Point § | | | | | | dipstick | dipstick | dipstick | crank case |
| Oil Added § | | | | | | 140 | 140 | - | 140 |
| Physical Condition | | | | | | | | | |
| Viscosity at 40°C (M002) | cSt | | | | | 78 | 85 | 88 | 84 |
| Viscosity at 100°C (M002) | cSt | | | | | 11.8 | 12.7 | 12.8 | 12.4 |
| Flash (M001) | deg. C | | | | | 170+ | 190+ | 190+ | 190+ |
| Fuel (N/A) | % wt | | | | | 4 | 3 | <2.0 | 3.0 |
| Water (M017/23/26) | % wt | | | | | <0.05 | 0.0508 | <0.05 | <0.05 |
| Oxidation (M017) | Abs/cm | | | | | - | 3 | 2 | 4 |
| Nitration (M017) | Abs/cm | | | | | - | <1 | <1 | <1 |
| Insolubles (M010) | % wt | | | | | 0.18 | 0.20 | 0.14 | 0.28 |
| TBN (M006) | mgKOH/g | | | | | 11.1 | 10.9 | 11.2 | 11.5 |
| PQ Index (M025) | PO units | | | | | <10 | <10 | <10 | <10 |
| Spectrographic Analysis | | | | | | | | | |
| Iron (M019) | mg/kg | | | | | 11 | 8 | 4 | 7 |
| Aluminium (M019) | mg/kg | | | | | 1 | 2 | 1 | 1 |
| Chromium (M019) | mg/kg | | | | | <1 | <1 | <1 | <1 |
| Molybdenum (M019) | mg/kg | | | | | <1 | <1 | <1 | <1 |
| Copper (M019) | mg/kg | | | | | 9 | 5 | 2 | 5 |
| Lead (M019) | mg/kg | | | | | <1 | <1 | <1 | <1 |
| Tin (M019) | mg/kg | | | | | 1 | <1 | <1 | <1 |
| Nickel (M019) | mg/kg | | | | | <1 | <1 | <1 | <1 |
| Silver (M019) | mg/kg | | | | | <1 | <1 | <1 | <1 |
| Manganese (M019) | mg/kg | | | | | <1 | <1 | <1 | <1 |
| Vanadium (M019) | mg/kg | | | | | <1 | <1 | <1 | <1 |
| Silicon (M019) | mg/kg | | | | | 9 | 6 | 4 | 4 |
| Titanium (M019) | mg/kg | | | | | <1 | <1 | <1 | <1 |
| Sodium (M019) | mg/kg | | | | | 1 | <1 | <1 | 3 |
| Boron (M019) | mg/kg | | | | | <1 | 1 | <1 | <1 |
| Phosphorus (M019) | % wt | | | | | 0.1230 | 0.1291 | 0.1234 | 0.1305 |
| Zinc (M019) | % wt | | | | | 0.1399 | 0.1507 | 0.1390 | 0.1525 |
| Calcium (M019) | % wt | | | | | 0.2448 | 0.2651 | 0.2545 | 0.2556 |
| Magnesium (M019) | % wt | | | | | 0.0297 | 0.0328 | 0.0312 | 0.0316 |

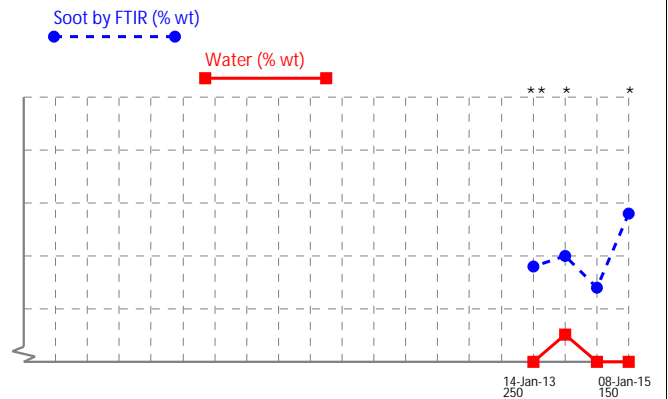
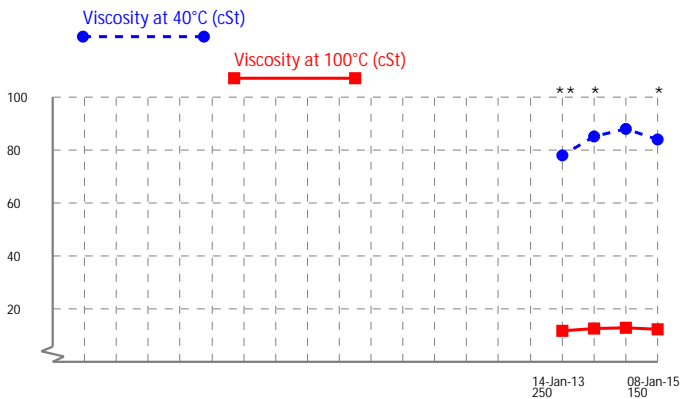
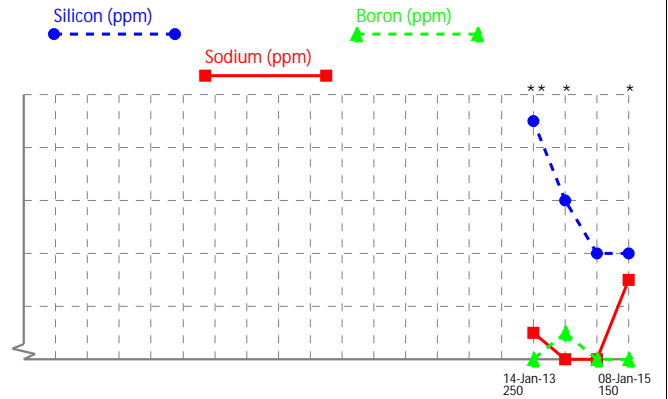
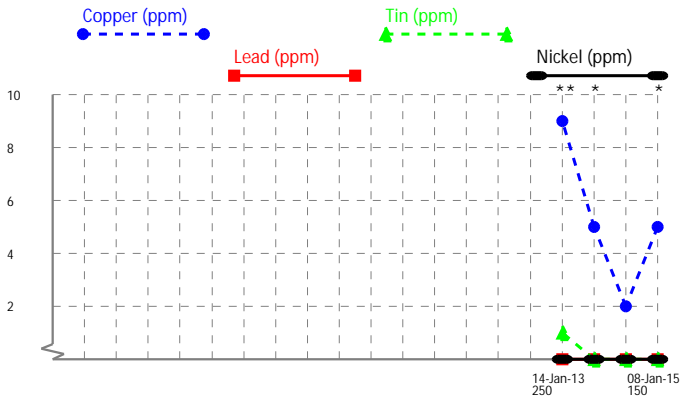
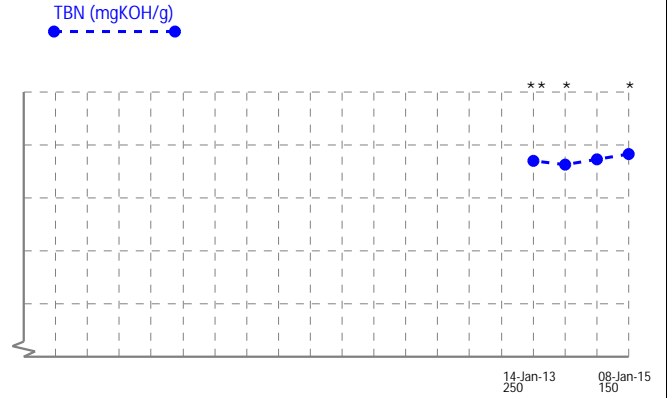
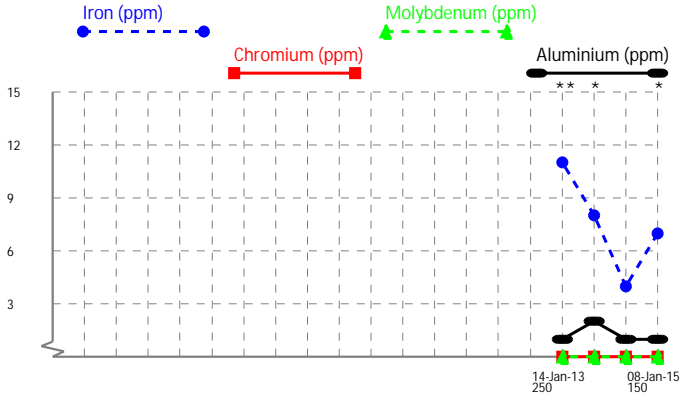


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Opinions and interpretations included in this report are outside the scope of UKAS/SAS accreditation. The validity of this report may depend on the accuracy of the sample data supplied. Caution, this is an extract from the complete test results. Reports with the same laboratory reference may contain a different selection of tests. All tests carried out in accordance with in house documented methods. By authority of Richard Medhurst - Quality Officer

Key:
* early warning § supplied by customer
** advanced warning N/A not UKAS/SAS accredited

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