



PERFORMANCE
UNDER
PRESSURE

OIL ANALYSIS REPORT

| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
2005 TOYOTA TOYOTA 4X4
Component
Gasoline Engine
Fluid
ROYAL PURPLE MOTOR OIL 15W40 (2 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please note that this is a corrected copy.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | RP033580 | RP034668 | --- |
| Sample Date | | Client Info | | 20 Jun 2006 | 31 Jan 2006 | --- |
| Machine Age | mls | Client Info | | 24798 | 18210 | --- |
| Oil Age | mls | Client Info | | 6588 | 13238 | --- |
| Filter Age | mls | Client Info | | 6588 | 3108 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | NORMAL | ABNORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | | 44 | 219 | --- |
| Chromium | ppm | ASTM D5185m | | <1 | 2 | --- |
| Nickel | ppm | ASTM D5185m | | <1 | 2 | --- |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | --- |
| Silver | ppm | ASTM D5185m | | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | | 7 | 12 | --- |
| Lead | ppm | ASTM D5185m | | 4 | 16 | --- |
| Copper | ppm | ASTM D5185m | | 4 | 7 | --- |
| Tin | ppm | ASTM D5185m | | 0 | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

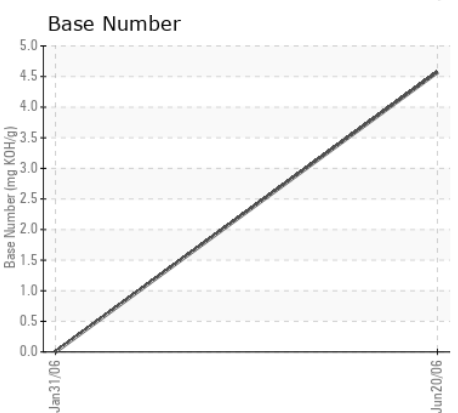
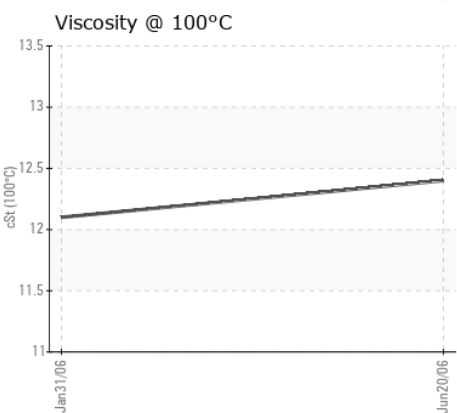
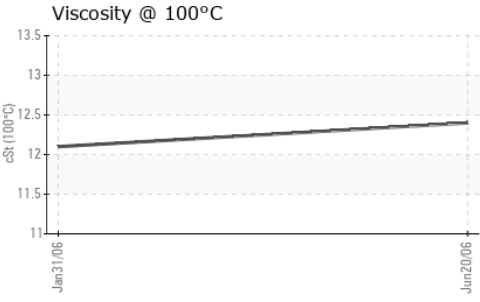
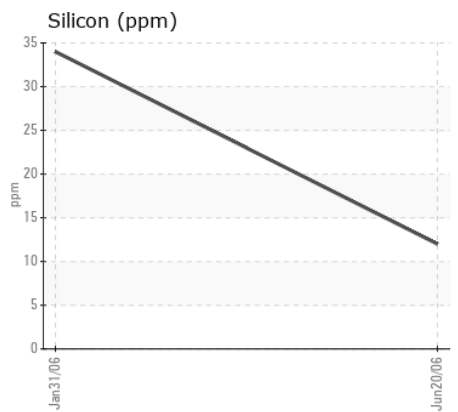
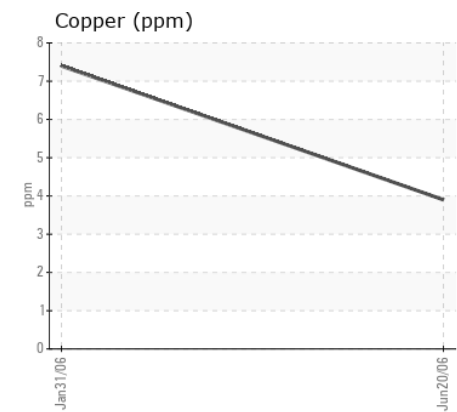
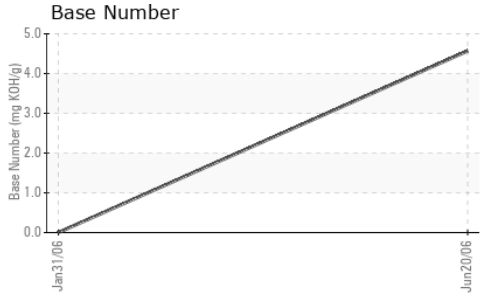
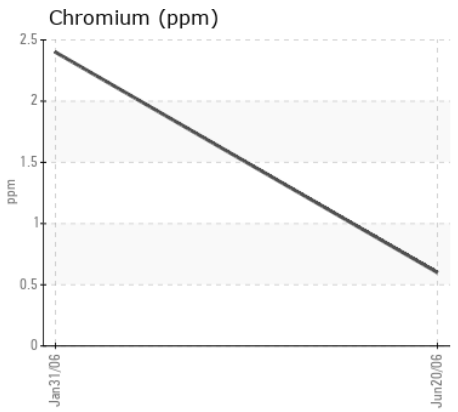
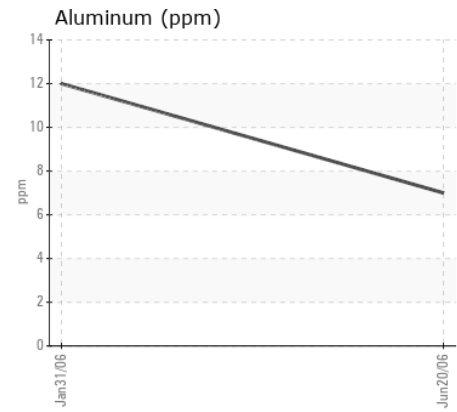
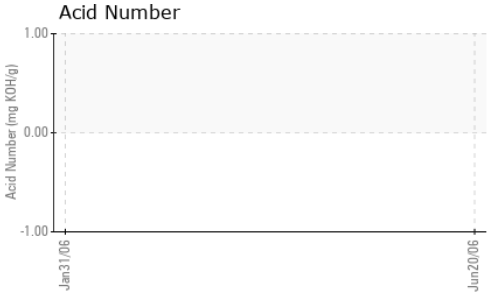
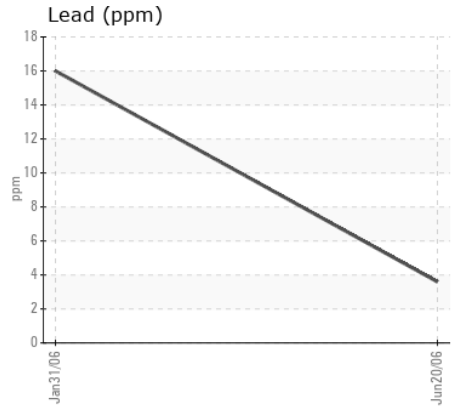
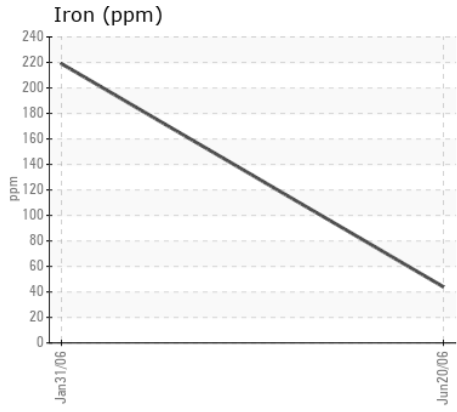
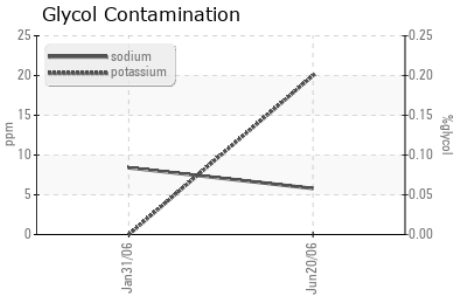
There is no indication of any contamination in the component.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon | ppm | ASTM D5185m | | 12 | 34 | --- |
| Potassium | ppm | ASTM D5185m | | 20 | 0 | --- |
| Fuel | | WC Method | | <1.0 | <1.0 | --- |
| Water | | WC Method | | NEG | NEG | --- |
| Glycol | % | *ASTM D2982 | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | | 0 | 0 | --- |
| Nitration | Abs/cm | *ASTM D7624 | | 0.19 | 0.33 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | | 0.48 | 0.90 | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | | NEG | NEG | --- |

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| | | | | | | |
|------------------|----------|-------------|--|--------------|---------|-----|
| Sodium | ppm | ASTM D5185m | | 6 | 8 | --- |
| Boron | ppm | ASTM D5185m | | 0 | 4 | --- |
| Barium | ppm | ASTM D5185m | | <1 | <1 | --- |
| Molybdenum | ppm | ASTM D5185m | | 104 | 111 | --- |
| Manganese | ppm | ASTM D5185m | | 70 | 31 | --- |
| Magnesium | ppm | ASTM D5185m | | 13 | 14 | --- |
| Calcium | ppm | ASTM D5185m | | 2917 | 3000 | --- |
| Phosphorus | ppm | ASTM D5185m | | 1061 | 943 | --- |
| Zinc | ppm | ASTM D5185m | | 1154 | 1211 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | | 0.30 | 0.43 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 4.57 | ▲ 0.000 | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 12.4 | ▲ 12.1 | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP033580 **Received** : 23 Jun 2006
Lab Number : 01747488 **Tested** : 26 Jun 2006
Unique Number : 3759384 **Diagnosed** : 07 Jul 2006 - Doug Bogart
Test Package : MOB 2 (Additional Tests: Glycol, TBN)

OILMAX S.A.S.
 AV 6 DICIEMBRE Y GASPAR CANTERO
 QUITO-ECUADOR,

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 T: (593)996-451694

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: x: