



OIL ANALYSIS REPORT

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

Machine Id
KENWORTH T800 ST39
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL 10W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | HPL0004946 | HPL0004534 | HPL0002463 |
| Sample Date | | Client Info | | 19 Jun 2024 | 27 Feb 2024 | 12 Oct 2023 |
| Machine Age | hrs | Client Info | | 4617 | 3826 | 3153 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 18 | 17 | 17 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 10 | 7 | 17 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 2 | 2 |
| Copper | ppm | ASTM D5185m | >330 | 2 | <1 | 4 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

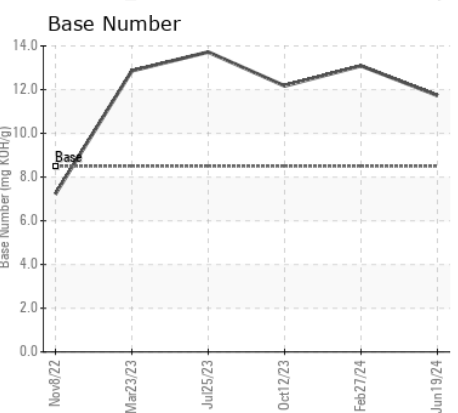
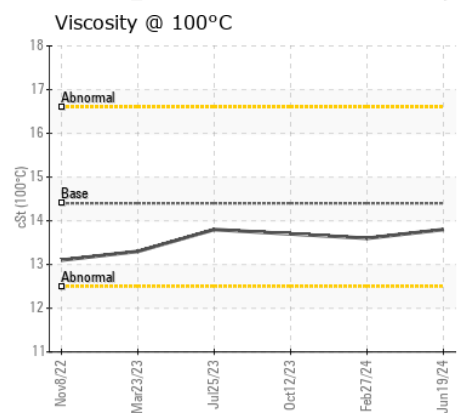
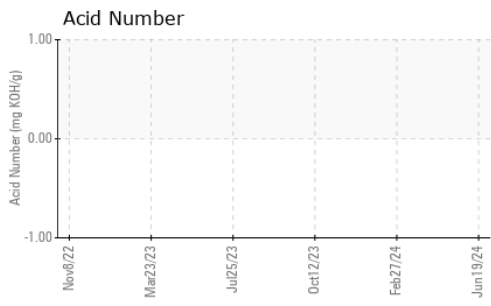
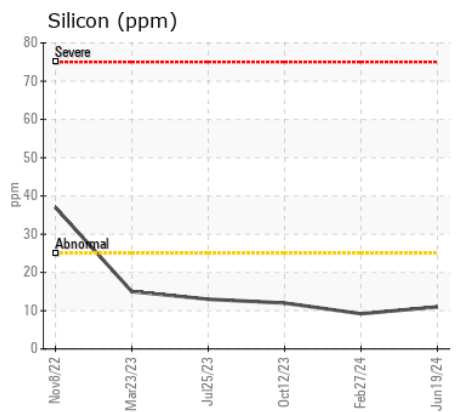
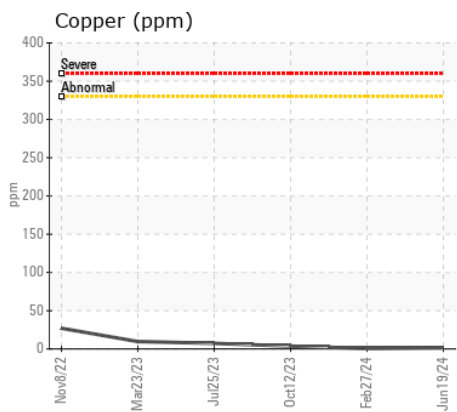
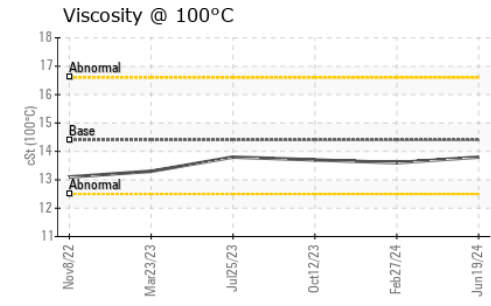
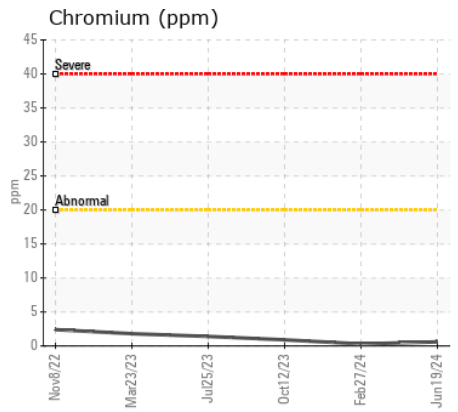
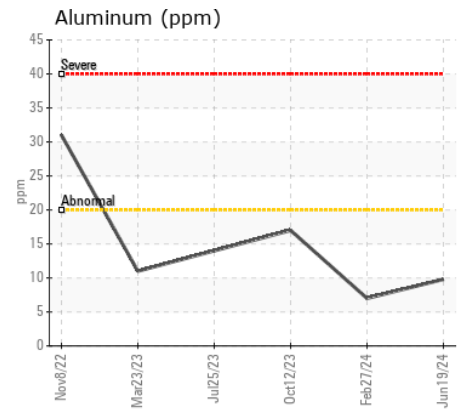
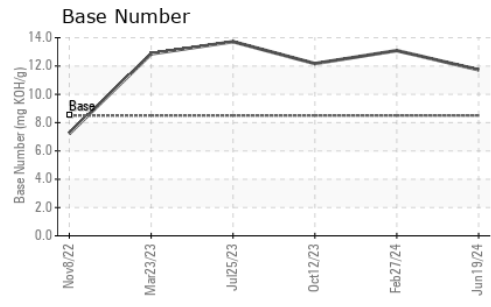
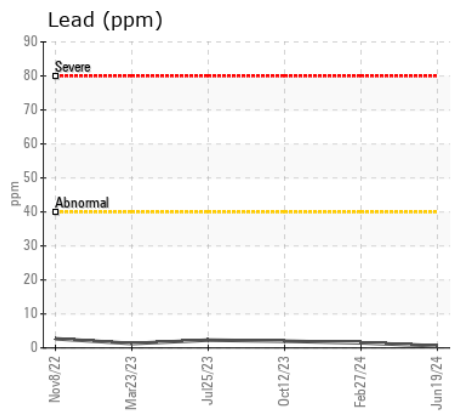
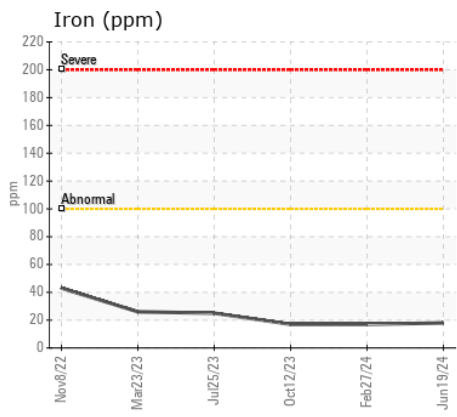
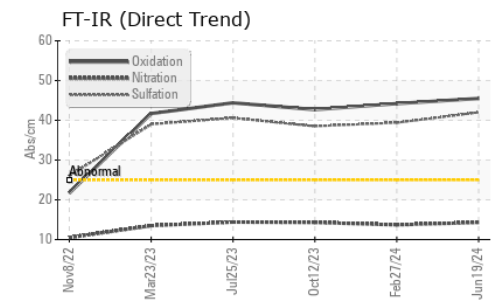
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 11 | 9 | 12 |
| Potassium | ppm | ASTM D5185m | >20 | 13 | 10 | 29 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.3 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 14.3 | 13.7 | 14.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 42.0 | 39.4 | 38.5 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|-------|-------|
| Sodium | ppm | ASTM D5185m | | 4 | <1 | <1 |
| Boron | ppm | ASTM D5185m | 250 | <1 | <1 | 0 |
| Barium | ppm | ASTM D5185m | 10 | 2 | <1 | <1 |
| Molybdenum | ppm | ASTM D5185m | 100 | 576 | 547 | 609 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 450 | 940 | 1050 | 966 |
| Calcium | ppm | ASTM D5185m | 3000 | 2552 | 2680 | 2554 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 918 | 1063 | 1058 |
| Zinc | ppm | ASTM D5185m | 1350 | 1305 | 1327 | 1264 |
| Sulfur | ppm | ASTM D5185m | 4250 | 6877 | 7941 | 8432 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 45.5 | 44.2 | 42.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 11.73 | 13.09 | 12.17 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.8 | 13.6 | 13.7 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0004946
Lab Number : 06221420
Unique Number : 11099617
Test Package : MOB 2 (Additional Tests: TAN Man)
Received : 26 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Sean Felton

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Certificate L2367
 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)