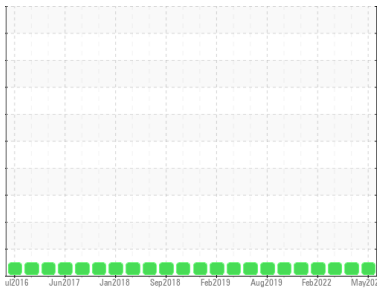
# OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
## KENWORTH T800 3WKDD40X1GF109090
Component
**Diesel Engine**
Fluid
**MOBIL DELVAC 1300 SUPER15W40 (10 GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the oil.

**Fluid Condition**
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **RW0004910** | RW0004913 | RW0003005 |
| Sample Date | | Client Info | | **22 May 2024** | 26 Jan 2024 | 03 Jun 2022 |
| Machine Age | hrs | Client Info | | **10917** | 10541 | 0 |
| Oil Age | hrs | Client Info | | **376** | 386 | 503 |
| Oil Changed | | Client Info | | **Changed** | Changed | Changed |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Fuel | | WC Method | >3.0 | **<1.0** | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | **NEG** | NEG | NEG |
| Glycol | | WC Method | | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >165 | **18** | 15 | 23 |
| Chromium | ppm | ASTM D5185m | >5 | **<1** | <1 | 1 |
| Nickel | ppm | ASTM D5185m | >4 | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | **<1** | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >20 | **3** | 2 | 4 |
| Lead | ppm | ASTM D5185m | >150 | **2** | <1 | 4 |
| Copper | ppm | ASTM D5185m | >90 | **1** | 0 | <1 |
| Tin | ppm | ASTM D5185m | >5 | **1** | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 0 | **52** | 47 | 59 |
| Barium | ppm | ASTM D5185m | 0 | **2** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | **43** | 30 | 45 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | **561** | 714 | 531 |
| Calcium | ppm | ASTM D5185m | | **1797** | 1778 | 1783 |
| Phosphorus | ppm | ASTM D5185m | | **871** | 879 | 742 |
| Zinc | ppm | ASTM D5185m | | **1008** | 1057 | 919 |
| Sulfur | ppm | ASTM D5185m | | **2862** | 3650 | 2760 |

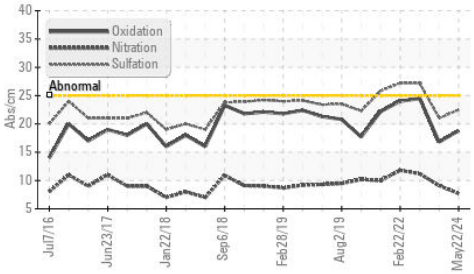
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >35 | **10** | 8 | 6 |
| Sodium | ppm | ASTM D5185m | | **2** | 2 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | **10** | 5 | 6 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | *ASTM D7844 | >7.5 | **0.6** | 0.9 | 1.6 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **7.7** | 9.1 | 11.2 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **22.5** | 21.0 | 27.2 |

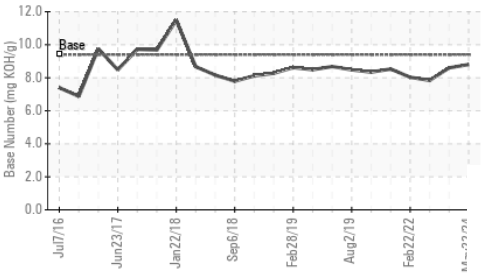
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **18.8** | 16.8 | 24.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | **8.80** | 8.60 | 7.84 |

# OIL ANALYSIS REPORT

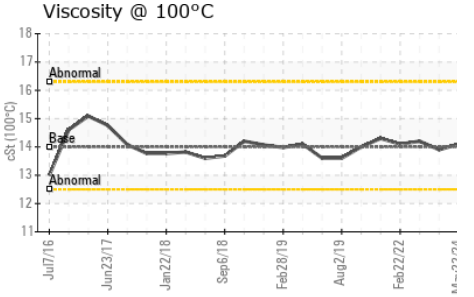
FT-IR (Direct Trend)




Base Number




Viscosity @ 100°C

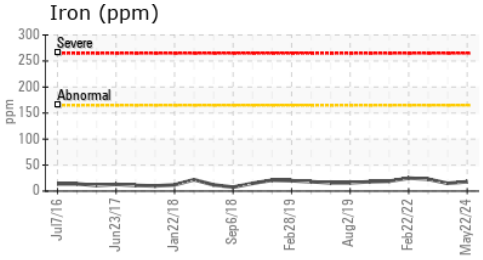



| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

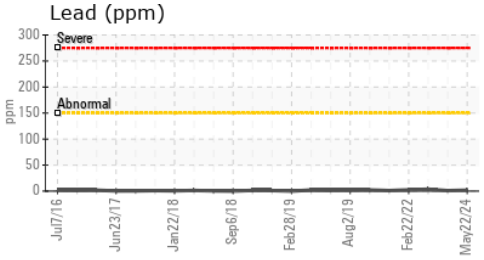
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D445 | 14 | **14.1** | 13.9 | 14.2 |

## GRAPHS

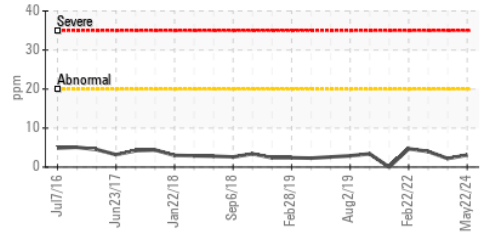
Iron (ppm)



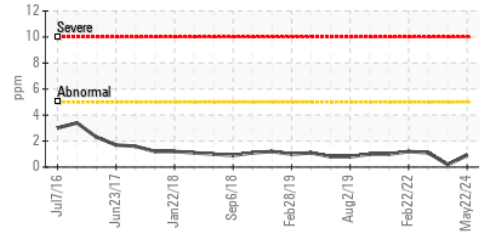

Lead (ppm)



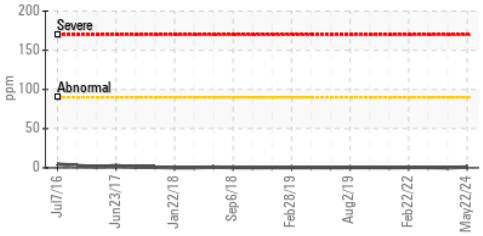

Aluminum (ppm)



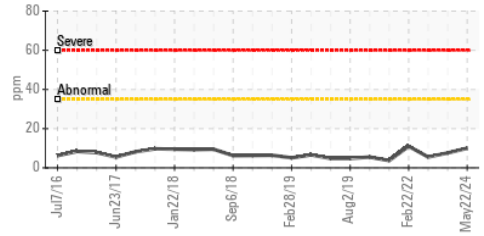

Chromium (ppm)



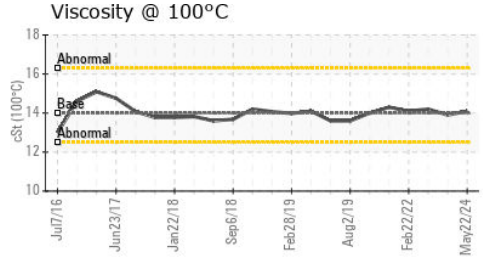

Copper (ppm)



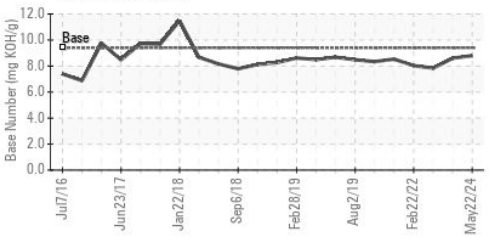

Silicon (ppm)




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : RW0004910
**Lab Number** : 06196862
**Unique Number** : 11058985
**Test Package** : MOB 2

**Received** : 31 May 2024
**Tested** : 03 Jun 2024
**Diagnosed** : 03 Jun 2024 - Wes Davis

*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)*

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Report Id: HOMIML [WUSCAR] 06196862 (Generated: 06/03/2024 14:21:15) Rev: 1

Contact/Location: DENNIS ONDRAJKA - HOMIML