MOB I

Dura-Check Fluid Analysis

# OIL ANALYSIS REPORT

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

Machine Id
## FORD M31724
Component
## Diesel Engine
Fluid
## DIESEL ENGINE OIL SAE 15W40 (13 QTS)

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

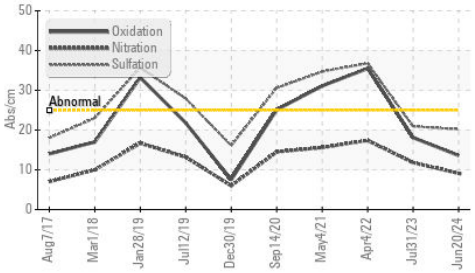
There is no indication of any contamination in the oil.

## FLUID CONDITION

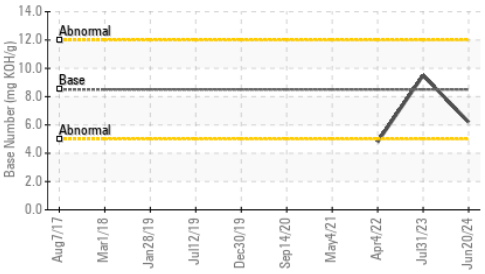
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | DC0034166 | DC0028312 | DC0020675 |
| Sample Date | | Client Info | | 20 Jun 2024 | 31 Jul 2023 | 04 Apr 2022 |
| Machine Age | mls | Client Info | | 116371 | 101202 | 99946 |
| Oil Age | mls | Client Info | | 11120 | 9661 | 9525 |
| Filter Age | mls | Client Info | | 11120 | 9661 | 9525 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | SEVERE | ABNORMAL |
| Iron | ppm | ASTM D5185m | >100 | 35 | ▲ 233 | 96 |
| Chromium | ppm | ASTM D5185m | >20 | 1 | 2 | 2 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | 1 | 0 |
| Titanium | ppm | ASTM D5185m | >2 | 5 | <1 | 2 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 6 | ▲ 51 | ● 14 |
| Lead | ppm | ASTM D5185m | >40 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 1 | 4 | 3 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 14 | ▲ 29 | ▲ 48 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 4 | 5 |
| Fuel | | WC Method | >5 | <1.0 | ▲ 2.8 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.3 | 0.4 | 0.9 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.1 | 11.8 | 17.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.2 | 20.9 | 36.8 |
| 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 |
| Sodium | ppm | ASTM D5185m | >158 | 2 | 6 | 7 |
| Boron | ppm | ASTM D5185m | 250 | 6 | 5 | 20 |
| Barium | ppm | ASTM D5185m | 10 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 100 | 6 | 52 | 2 |
| Manganese | ppm | ASTM D5185m | | <1 | 2 | 1 |
| Magnesium | ppm | ASTM D5185m | 450 | 56 | 955 | 726 |
| Calcium | ppm | ASTM D5185m | 3000 | 2199 | 1257 | 1588 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 858 | 1160 | 1174 |
| Zinc | ppm | ASTM D5185m | 1350 | 1053 | 1353 | 1388 |
| Sulfur | ppm | ASTM D5185m | 4250 | 3505 | 4032 | 3121 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.6 | 18.1 | 35.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 6.2 | 9.5 | 4.8 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.0 | ● 11.8 | 13.3 |

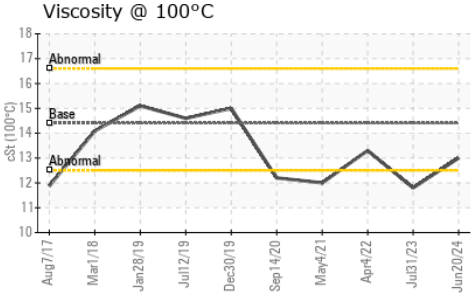
FT-IR (Direct Trend)



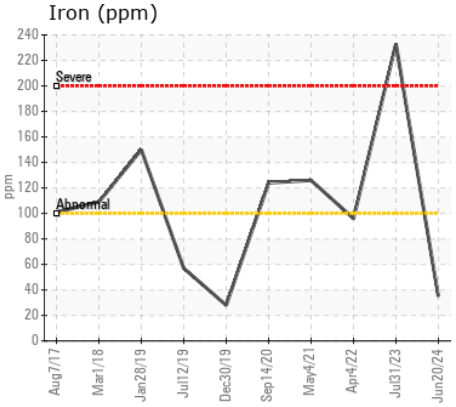

Base Number



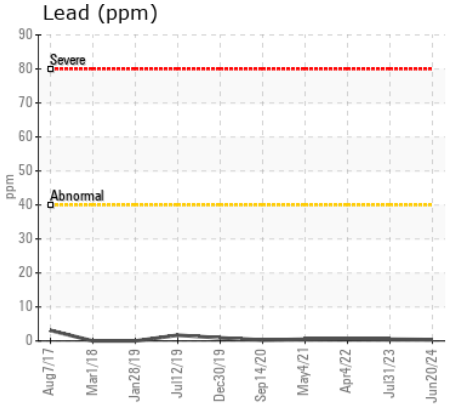

Viscosity @ 100°C



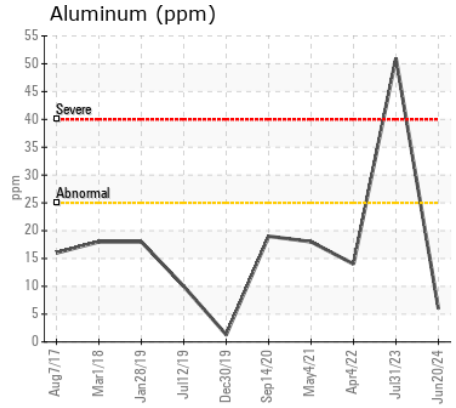

Iron (ppm)



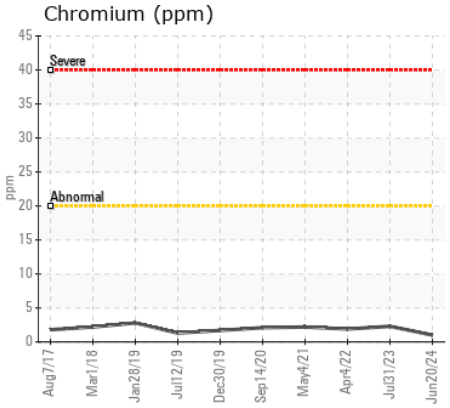

Lead (ppm)



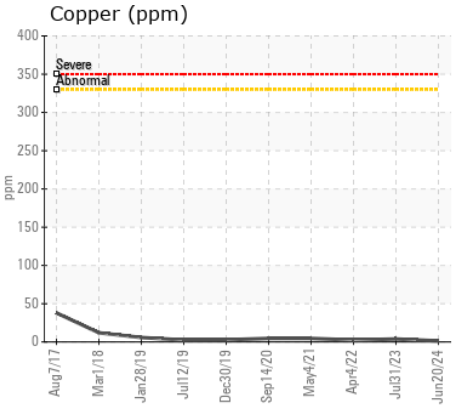

Aluminum (ppm)



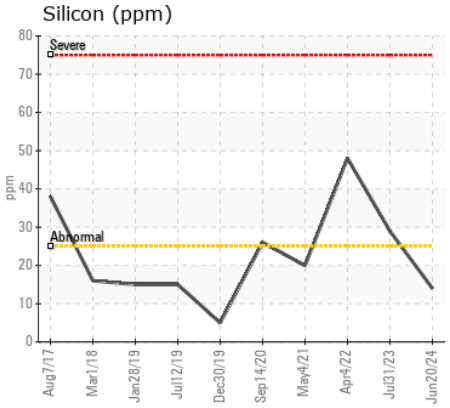

Chromium (ppm)



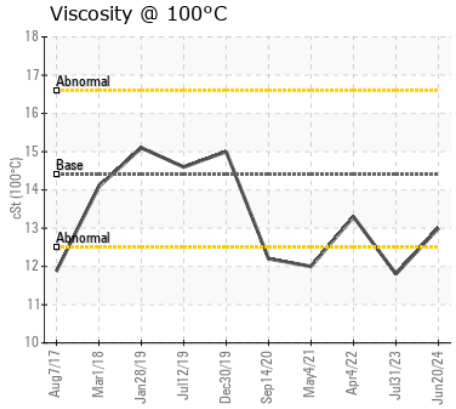

Copper (ppm)



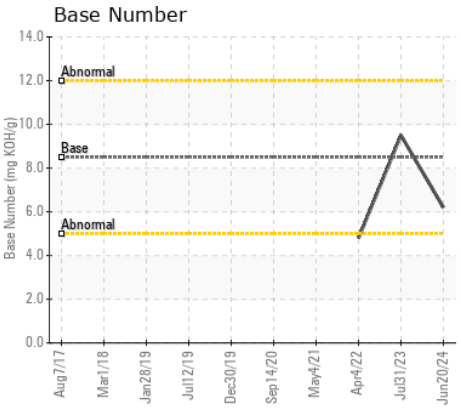

Silicon (ppm)




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : DC0034166 **Received** : 10 Jul 2024
**Lab Number** : 06232114 **Tested** : 11 Jul 2024
**Unique Number** : 11115607 **Diagnosed** : 11 Jul 2024 - Wes Davis
**Test Package** : MOB 1 ( Additional Tests: TBN )

*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)*

**M&M FLEET**
5046 BUCHANAN ST.
HYATTSVILLE, MD
US 20781
Contact: June McClosky
office@mmfleet.net
T: (301)779-4545
F: x: