FLEET WEAR CHECK

OIL ANALYSIS REPORT

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

Machine Id
**MACK 73**
Component
**Diesel Engine**
Fluid
**CHEVRON DELO 400 MULTIGRADE 15W40 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

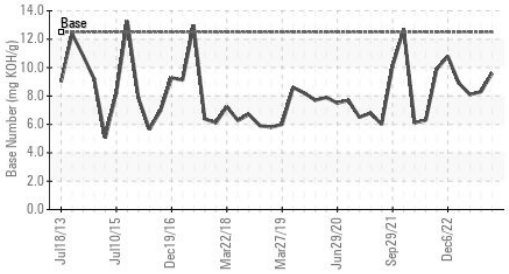
No evidence of coolant present in the oil. There is no indication of any contamination in the oil.

## FLUID CONDITION

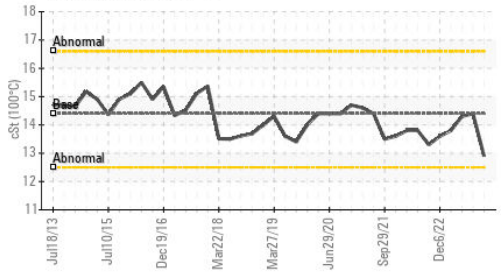
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | KL0013206 | KL0011529 | KL0007245 |
| Sample Date | | Client Info | | 24 Jan 2024 | 03 Aug 2023 | 17 May 2023 |
| Machine Age | mls | Client Info | | 502513 | 495615 | 488817 |
| Oil Age | mls | Client Info | | 13059 | 6161 | 21948 |
| Filter Age | mls | Client Info | | 13059 | 6161 | 21948 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Filter Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Sample Status | | | | NORMAL | SEVERE | SEVERE |
| Iron | ppm | ASTM D5185m | >120 | 19 | 38 | 61 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 1 | 3 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 4 | 2 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | 3 | 3 |
| Lead | ppm | ASTM D5185m | >40 | 6 | ▲ 59 | ▲ 54 |
| Copper | ppm | ASTM D5185m | >330 | 27 | ▲ 730 | 271 |
| Tin | ppm | ASTM D5185m | >15 | 2 | 5 | 2 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 12 | 12 | 12 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | ▲ 450 | ▲ 480 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | % | *ASTM D2982 | | NEG | ⬢ 0.10 | ⬢ 0.10 |
| Soot % | % | *ASTM D7844 | >4 | 0.3 | 0.9 | 2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.2 | 10.0 | 13.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.8 | 21.0 | 24.0 |
| 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 | | 5 | ▲ 340 | ▲ 341 |
| Boron | ppm | ASTM D5185m | 151 | 329 | 36 | 21 |
| Barium | ppm | ASTM D5185m | 0.4 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 250 | 121 | 105 | 85 |
| Manganese | ppm | ASTM D5185m | | 1 | 2 | 2 |
| Magnesium | ppm | ASTM D5185m | 0 | 660 | 632 | 579 |
| Calcium | ppm | ASTM D5185m | 2046 | 1544 | 1424 | 1354 |
| Phosphorus | ppm | ASTM D5185m | 1043 | 675 | 914 | 868 |
| Zinc | ppm | ASTM D5185m | 943 | 815 | 771 | 834 |
| Sulfur | ppm | ASTM D5185m | 5012 | 2397 | 2676 | 2559 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.0 | 15.1 | 17.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 12.5 | 9.6 | 8.3 | 8.1 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 12.9 | 14.4 | 14.3 |

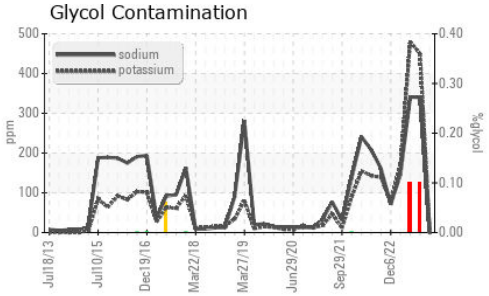
Base Number



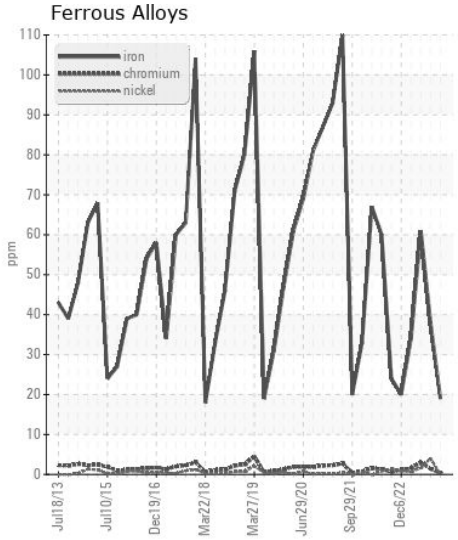

Viscosity @ 100°C



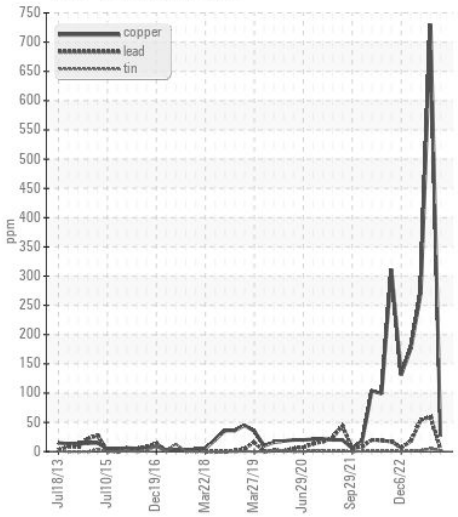

Glycol Contamination



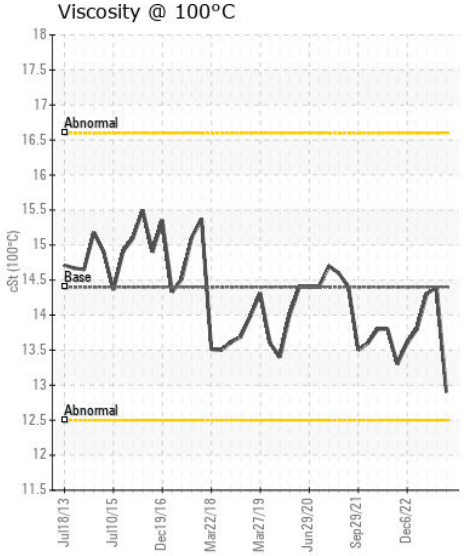

Ferrous Alloys



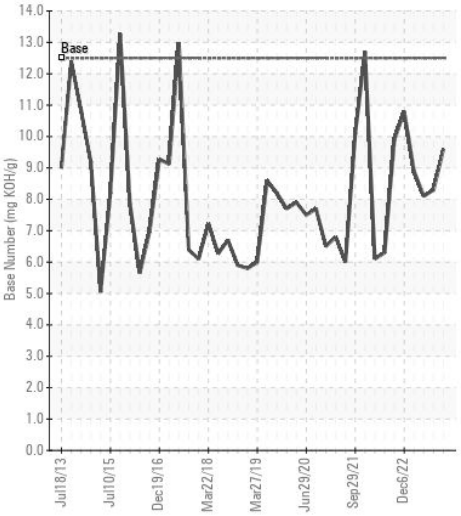

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

| | | | |
|---|---|---|---|
| **Laboratory** | : WearCheck USA - 501 Madison Ave., Cary, NC 27513 | | |
| **Sample No.** | : KL0013206 | **Recieved** | : 30 Jan 2024 |
| **Lab Number** | : 06073563 | **Diagnosed** | : 31 Jan 2024 |
| **Unique Number** | : 10850240 | **Diagnostician** | : Jonathan Hester |
| **Test Package** | : FLEET | | |

*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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