MOB I

WEAR CHECK

OIL ANALYSIS REPORT

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

Area
**52000 series**
Machine Id
**Navistar 53238**
Component
**Diesel Engine**
Fluid
**PETRO CANADA DURON SHP 10W30 (40 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

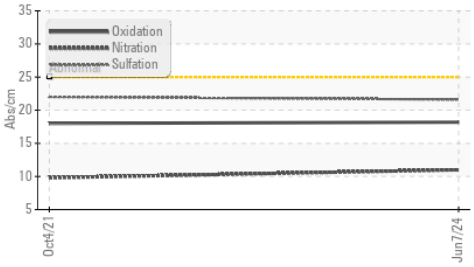
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

## FLUID CONDITION

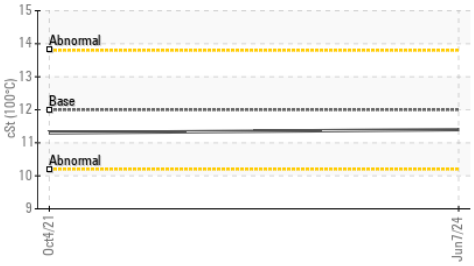
The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0930265** | WC0608011 | --- |
| Sample Date | | Client Info | | **07 Jun 2024** | 04 Oct 2021 | --- |
| Machine Age | mls | Client Info | | **194238** | 111193 | --- |
| Oil Age | mls | Client Info | | **30848** | 21838 | --- |
| Filter Age | mls | Client Info | | **30848** | 21838 | --- |
| Oil Changed | | Client Info | | **Changed** | Changed | --- |
| Filter Changed | | Client Info | | **Changed** | Changed | --- |
| Sample Status | | | | **NORMAL** | NORMAL | --- |
| Iron | ppm | ASTM D5185(m) | >100 | **40** | 20 | --- |
| Chromium | ppm | ASTM D5185(m) | >20 | **2** | 2 | --- |
| Nickel | ppm | ASTM D5185(m) | >4 | **<1** | <1 | --- |
| Titanium | ppm | ASTM D5185(m) | | **0** | 0 | --- |
| Silver | ppm | ASTM D5185(m) | >3 | **<1** | <1 | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | **24** | 10 | --- |
| Lead | ppm | ASTM D5185(m) | >40 | **4** | 4 | --- |
| Copper | ppm | ASTM D5185(m) | >330 | **1** | 2 | --- |
| Tin | ppm | ASTM D5185(m) | >15 | **<1** | 1 | --- |
| Vanadium | ppm | ASTM D5185(m) | | **0** | 0 | --- |
| Silicon | ppm | ASTM D5185(m) | >25 | **3** | 4 | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | **62** | 22 | --- |
| Fuel | | WC Method | >5 | **<1.0** | <1.0 | --- |
| Water | | WC Method | >0.2 | **NEG** | NEG | --- |
| Glycol | | WC Method | | **NEG** | NEG | --- |
| Soot % | % | ASTM D7844* | >3 | **0.5** | 0.3 | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | **11.0** | 9.8 | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | **21.6** | 22.0 | --- |
| Emulsified Water | scalar | Visual* | >0.2 | **NEG** | NEG | --- |
| Sodium | ppm | ASTM D5185(m) | | **2** | 2 | --- |
| Boron | ppm | ASTM D5185(m) | 2 | **6** | 2 | --- |
| Barium | ppm | ASTM D5185(m) | 0 | **0** | 0 | --- |
| Molybdenum | ppm | ASTM D5185(m) | 50 | **63** | 61 | --- |
| Manganese | ppm | ASTM D5185(m) | 0 | **<1** | <1 | --- |
| Magnesium | ppm | ASTM D5185(m) | 950 | **972** | 1041 | --- |
| Calcium | ppm | ASTM D5185(m) | 1050 | **1108** | 1073 | --- |
| Phosphorus | ppm | ASTM D5185(m) | 995 | **990** | 1080 | --- |
| Zinc | ppm | ASTM D5185(m) | 1180 | **1229** | 1273 | --- |
| Sulfur | ppm | ASTM D5185(m) | 2600 | **2470** | 2506 | --- |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | **18.2** | 18.0 | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 12.00 | **11.4** | 11.3 | --- |

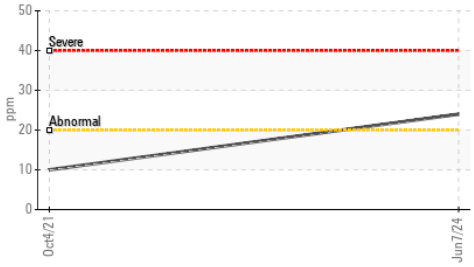
FT-IR (Direct Trend)



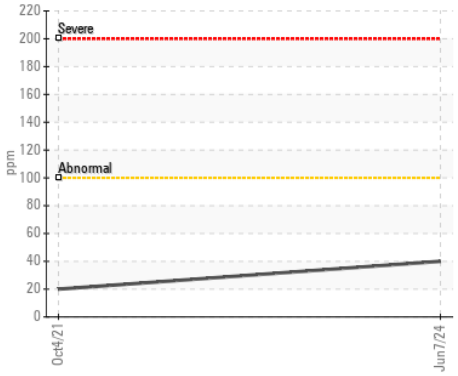

Viscosity @ 100°C



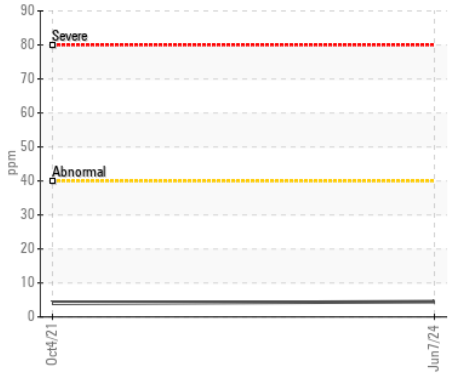

Aluminum (ppm)



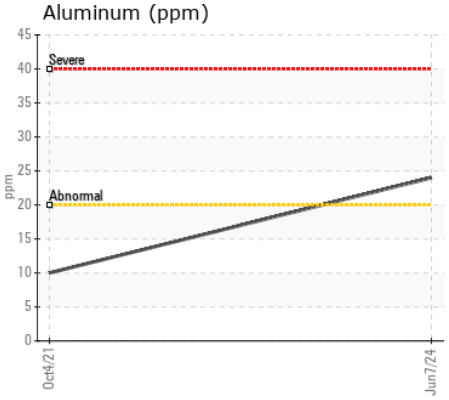

Iron (ppm)



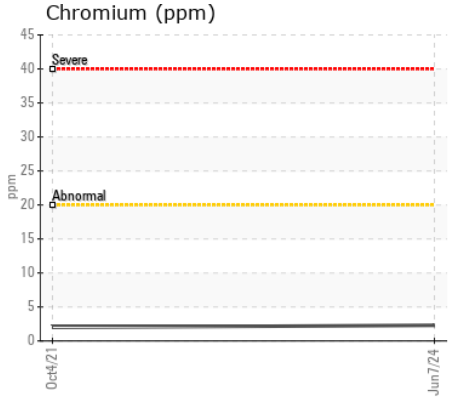

Lead (ppm)



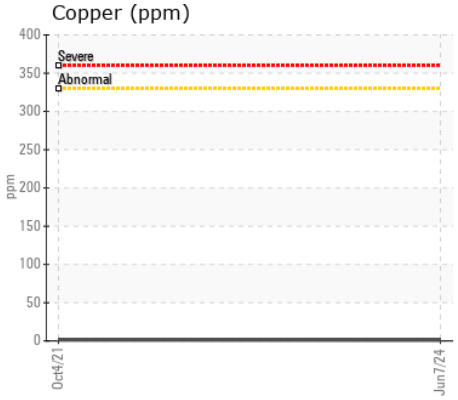

Aluminum (ppm)



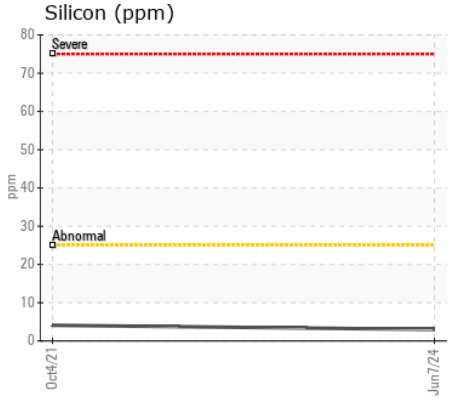

Chromium (ppm)



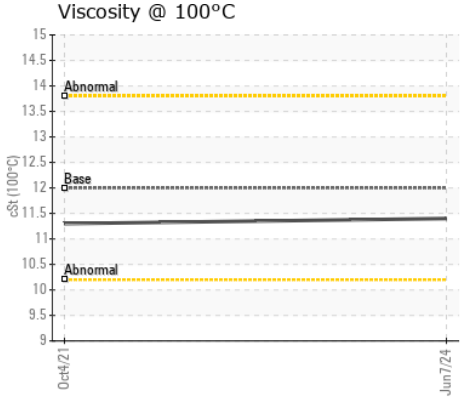

Copper (ppm)



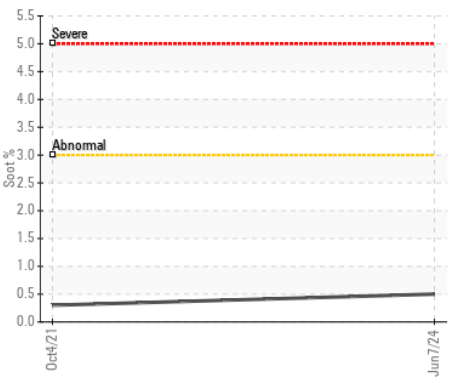

Silicon (ppm)




Viscosity @ 100°C




Soot %




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : WC0930265
**Lab Number** : 02645176
**Unique Number** : 5802715
**Test Package** : MOB 1

**Received** : 03 Jul 2024
**Tested** : 03 Jul 2024
**Diagnosed** : 03 Jul 2024 - Wes Davis

*To discuss this sample report, contact Customer Service at 1-800-268-2131.*
*Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.*
*Validity of results and interpretation are based on the sample and information as supplied.*

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