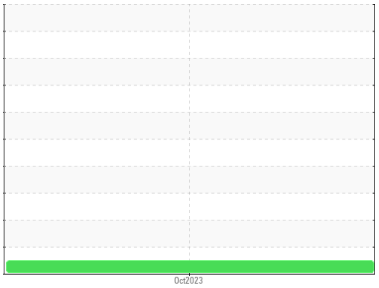
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Area
**[41590538]**
Machine Id
**9852**
Component
**Diesel Engine**
Fluid
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

## DIAGNOSIS

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

**Wear**
Metal levels are typical for a new component breaking in.

**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.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0853214** | --- | --- |
| Sample Date | | Client Info | | **01 Oct 2023** | --- | --- |
| Machine Age | kms | Client Info | | **7896** | --- | --- |
| Oil Age | kms | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **Not Changd** | --- | --- |
| Sample Status | | | | **NORMAL** | --- | --- |

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

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185(m) | >90 | **21** | --- | --- |
| Chromium | ppm | ASTM D5185(m) | >20 | **<1** | --- | --- |
| Nickel | ppm | ASTM D5185(m) | >2 | **0** | --- | --- |
| Titanium | ppm | ASTM D5185(m) | >2 | **0** | --- | --- |
| Silver | ppm | ASTM D5185(m) | >2 | **<1** | --- | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | **6** | --- | --- |
| Lead | ppm | ASTM D5185(m) | >40 | **2** | --- | --- |
| Copper | ppm | ASTM D5185(m) | >330 | **81** | --- | --- |
| Tin | ppm | ASTM D5185(m) | >15 | **<1** | --- | --- |
| Antimony | ppm | ASTM D5185(m) | | **0** | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | | **0** | --- | --- |
| Beryllium | ppm | ASTM D5185(m) | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185(m) | | **0** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185(m) | 250 | **65** | --- | --- |
| Barium | ppm | ASTM D5185(m) | 10 | **<1** | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) | 100 | **23** | --- | --- |
| Manganese | ppm | ASTM D5185(m) | | **<1** | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | 450 | **576** | --- | --- |
| Calcium | ppm | ASTM D5185(m) | 3000 | **1419** | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | **741** | --- | --- |
| Zinc | ppm | ASTM D5185(m) | 1350 | **880** | --- | --- |
| Sulfur | ppm | ASTM D5185(m) | 4250 | **2336** | --- | --- |
| Lithium | ppm | ASTM D5185(m) | | **<1** | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >25 | **8** | --- | --- |
| Sodium | ppm | ASTM D5185(m) | | **5** | --- | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | **20** | --- | --- |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | ASTM D7844* | >6 | **0.9** | --- | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | **7.4** | --- | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | **20.4** | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | **13.6** | --- | --- |

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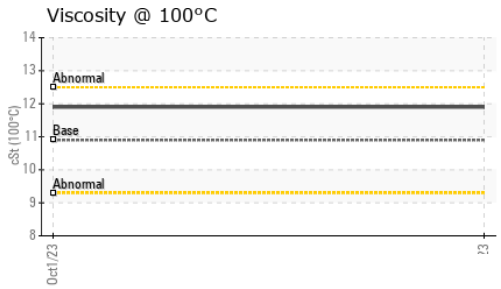
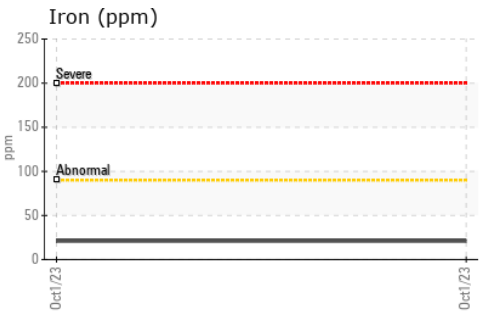
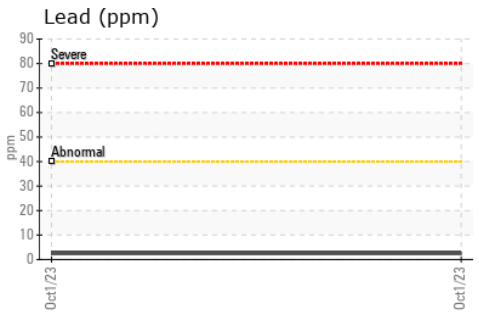


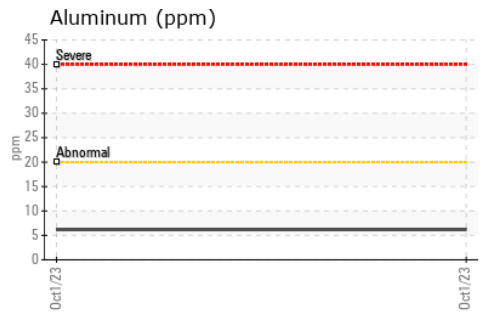

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Emulsified Water | scalar | Visual* | >0.2 | **NEG** | --- | --- |
| Free Water | scalar | Visual* | | **NEG** | --- | --- |

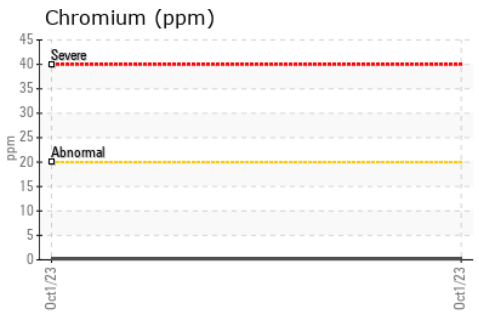
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D7279(m) | 10.9 | **11.9** | --- | --- |

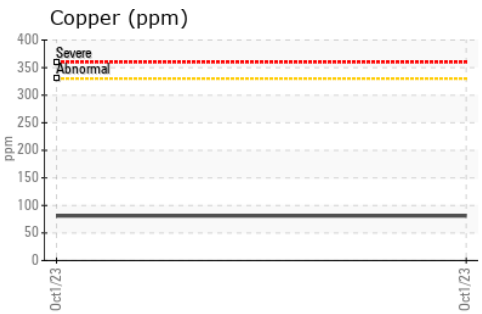
## GRAPHS

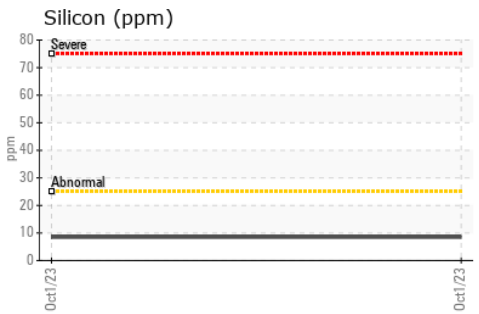


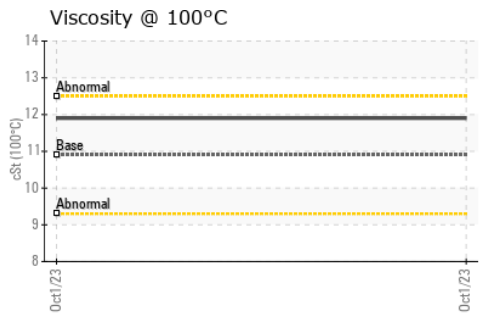



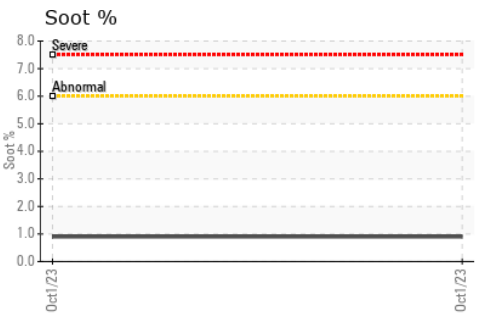




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : WC0853214 **Received** : 05 Oct 2023
**Lab Number** : 02587058 **Diagnosed** : 05 Oct 2023
**Unique Number** : 5656124 **Diagnostician** : Wes Davis
**Test Package** : MOB 1

*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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