



OIL ANALYSIS REPORT

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

Machine Id
INTERNATIONAL 52919
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | WC0847659 | WC0720930 | --- |
| Sample Date | | Client Info | | 26 Dec 2023 | 25 Aug 2023 | --- |
| Machine Age | kms | Client Info | | 63573 | 55901 | --- |
| Oil Age | kms | Client Info | | 28831 | 0 | --- |
| Filter Age | kms | Client Info | | 28831 | 0 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | Changed | Changed | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|-----|
| Iron | ppm | ASTM D5185(m) | >100 | 34 | 63 | --- |
| Chromium | ppm | ASTM D5185(m) | >20 | 2 | 3 | --- |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | <1 | --- |
| Titanium | ppm | ASTM D5185(m) | | 0 | <1 | --- |
| Silver | ppm | ASTM D5185(m) | >3 | <1 | <1 | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | 25 | 40 | --- |
| Lead | ppm | ASTM D5185(m) | >40 | 3 | 5 | --- |
| Copper | ppm | ASTM D5185(m) | >330 | 5 | 18 | --- |
| Tin | ppm | ASTM D5185(m) | >15 | 2 | 4 | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | --- |

CONTAMINATION

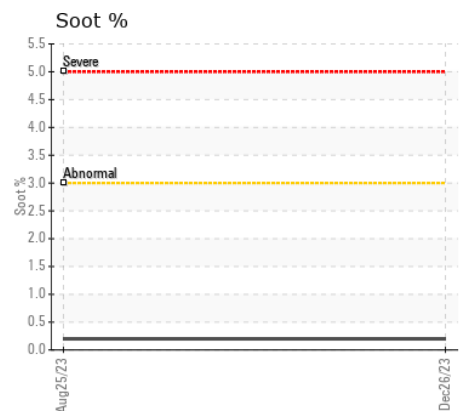
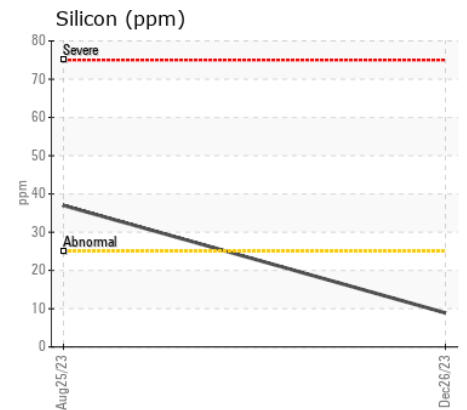
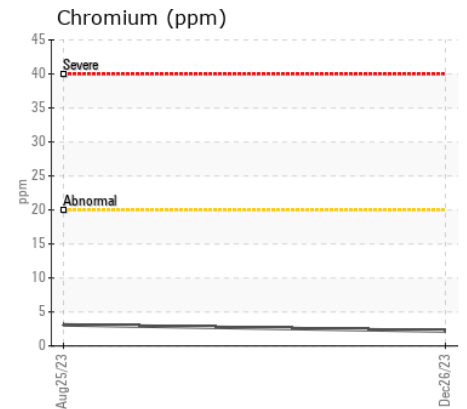
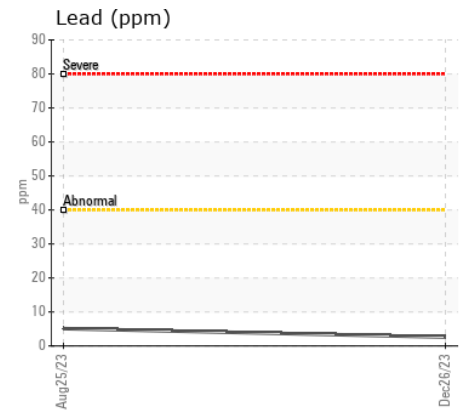
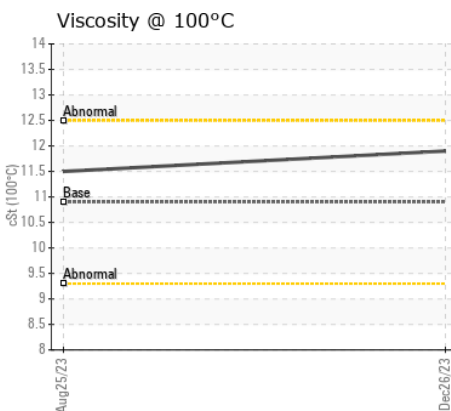
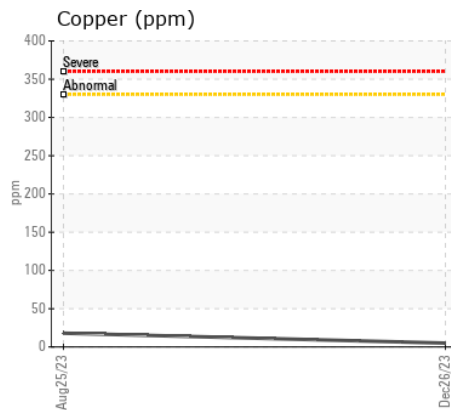
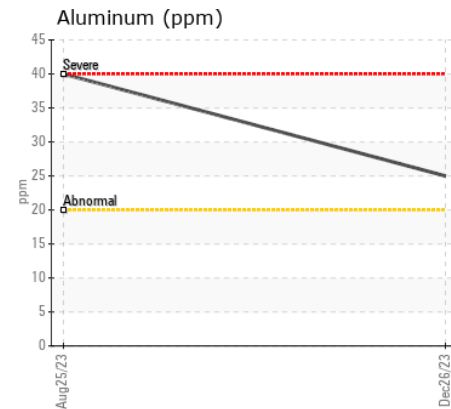
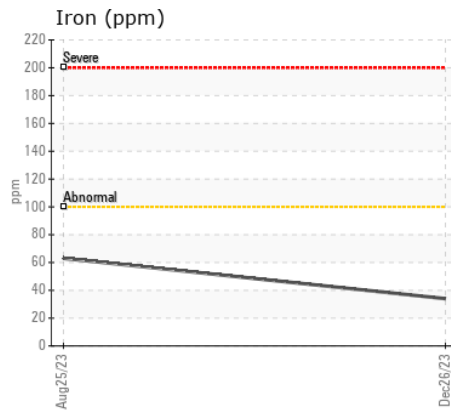
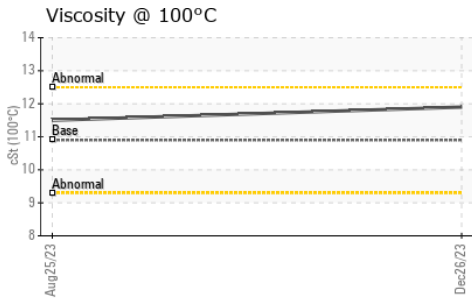
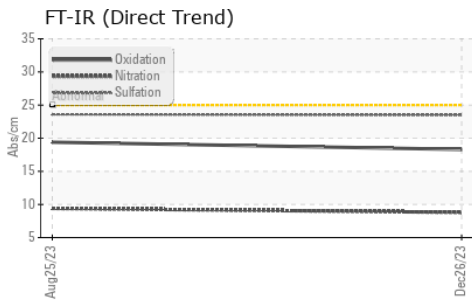
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|-----|
| Silicon | ppm | ASTM D5185(m) | >25 | 9 | 37 | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 68 | 110 | --- |
| Fuel | | WC Method | >2.0 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | ASTM D7844* | >3 | 0.2 | 0.2 | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | 8.8 | 9.4 | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 23.5 | 23.6 | --- |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | --- |

FLUID CONDITION

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

| | | | | | | |
|--------------|----------|---------------|------|--------------|------|-----|
| Sodium | ppm | ASTM D5185(m) | | 2 | 4 | --- |
| Boron | ppm | ASTM D5185(m) | 250 | 72 | 42 | --- |
| Barium | ppm | ASTM D5185(m) | 10 | <1 | 4 | --- |
| Molybdenum | ppm | ASTM D5185(m) | 100 | 5 | 62 | --- |
| Manganese | ppm | ASTM D5185(m) | | <1 | 7 | --- |
| Magnesium | ppm | ASTM D5185(m) | 450 | 48 | 441 | --- |
| Calcium | ppm | ASTM D5185(m) | 3000 | 2139 | 1681 | --- |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 902 | 934 | --- |
| Zinc | ppm | ASTM D5185(m) | 1350 | 1123 | 1156 | --- |
| Sulfur | ppm | ASTM D5185(m) | 4250 | 2730 | 2185 | --- |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 18.3 | 19.4 | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 10.9 | 11.9 | 11.5 | --- |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0847659 **Received** : 27 Dec 2023
Lab Number : 02605223 **Tested** : 27 Dec 2023
Unique Number : 5698308 **Diagnosed** : 27 Dec 2023 - Wes Davis
Test Package : MOB 1

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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.