



OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
T000809 (S/N 08-M-05-1251)

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info | | WC0812510 | --- | --- |
| Sample Date | Client Info | | 25 Apr 2023 | --- | --- |
| Machine Age | hrs | Client Info | 10028 | --- | --- |
| Oil Age | hrs | Client Info | 0 | --- | --- |
| Oil Changed | Client Info | | N/A | --- | --- |
| Sample Status | | | ABNORMAL | --- | --- |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|--------|-----------|------------|------------|----------|----------|
| Glycol | WC Method | | NEG | --- | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) >100 | 10 | --- | --- |
| Chromium | ppm | ASTM D5185(m) >20 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185(m) >4 | <1 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | <1 | --- | --- |
| Silver | ppm | ASTM D5185(m) >3 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) >20 | <1 | --- | --- |
| Lead | ppm | ASTM D5185(m) >40 | 1 | --- | --- |
| Copper | ppm | ASTM D5185(m) >330 | 41 | --- | --- |
| Tin | ppm | ASTM D5185(m) >15 | <1 | --- | --- |
| Antimony | ppm | ASTM D5185(m) | <1 | --- | --- |
| 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 | 6 | --- | --- |
| Barium | ppm | ASTM D5185(m) 10 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) 100 | 54 | --- | --- |
| Manganese | ppm | ASTM D5185(m) | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) 450 | 897 | --- | --- |
| Calcium | ppm | ASTM D5185(m) 3000 | 1041 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) 1150 | 1037 | --- | --- |
| Zinc | ppm | ASTM D5185(m) 1350 | 1117 | --- | --- |
| Sulfur | ppm | ASTM D5185(m) 4250 | 2624 | --- | --- |
| Lithium | ppm | ASTM D5185(m) | <1 | --- | --- |

CONTAMINANTS

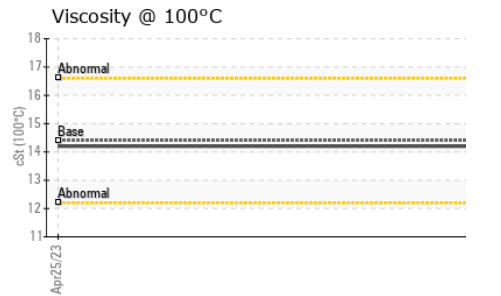
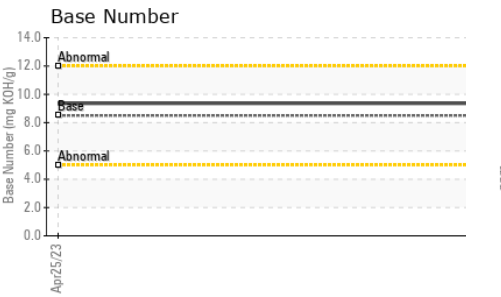
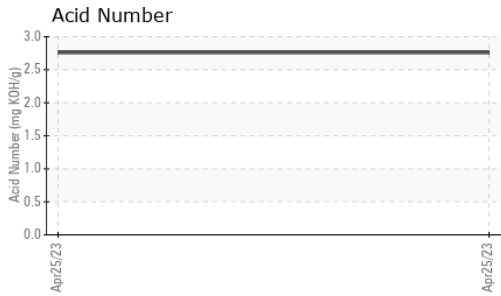
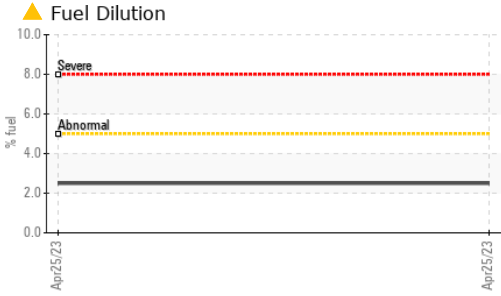
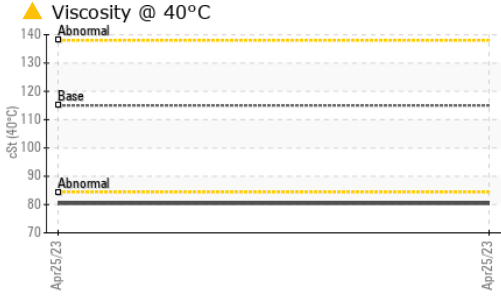
| | method | limit/base | current | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >25 | 3 | --- | --- |
| Sodium | ppm | ASTM D5185(m) >158 | 1 | --- | --- |
| Potassium | ppm | ASTM D5185(m) >20 | 0 | --- | --- |
| Fuel | % | ASTM D7593* >5 | ▲ 2.5 | --- | --- |

INFRA-RED

| | method | limit/base | current | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot % | % | ASTM D7844* >3 | 0 | --- | --- |
| Nitration | Abs/cm | ASTM D7624* >20 | 4.8 | --- | --- |
| Sulfation | Abs./1mm | ASTM D7415* >30 | 16.9 | --- | --- |



OIL ANALYSIS REPORT

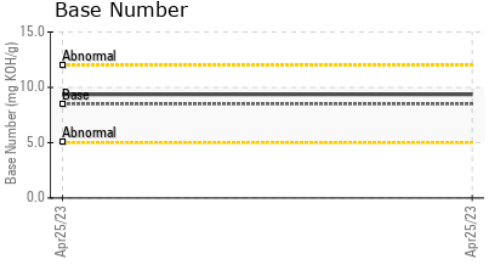
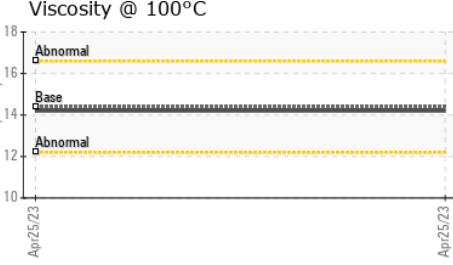
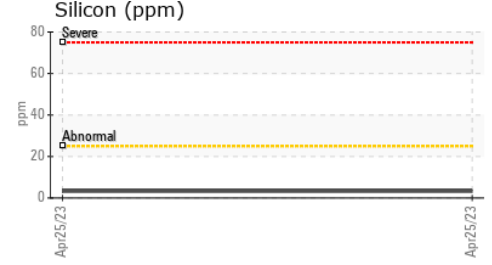
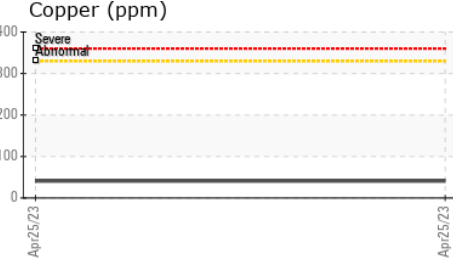
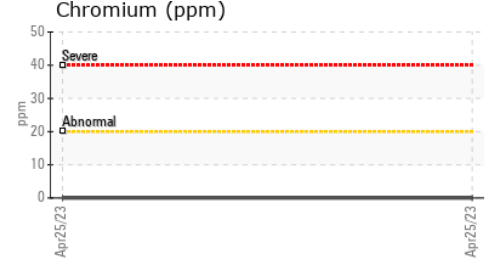
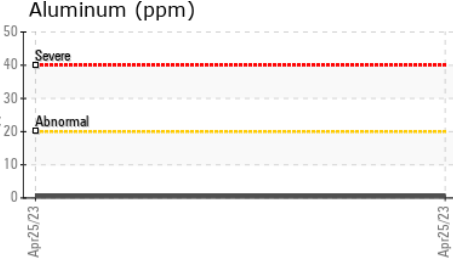
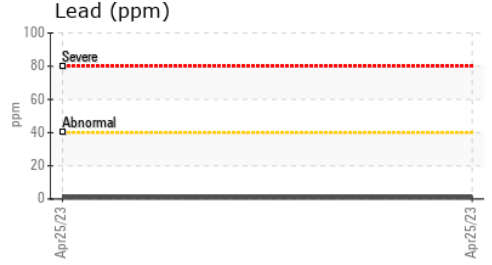
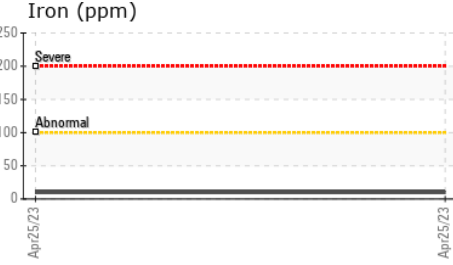


| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation | Abs./1mm | ASTM D7414* | >25 | 13.1 | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D974* | | 2.76 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896* | 8.5 | 9.36 | --- | --- |

| 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 @ 40°C | cSt | ASTM D7279(m) | 115 | ▲ 80.4 | --- | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.4 | 14.2 | --- | --- |
| Viscosity Index (VI) | Scale | ASTM D2270* | 126 | 183 | --- | --- |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0812510 **Received** : 27 Apr 2023
Lab Number : 02553825 **Diagnosed** : 01 May 2023
Unique Number : 5566840 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: FUEL DILUTION, KV40, PercentFuel, TAN Auto, TAN Man, VI)

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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.