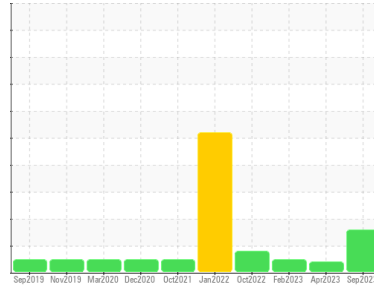




OIL ANALYSIS REPORT

Sample Rating Trend



Area
[41221169]

Machine Id
9420

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate concentration of dirt present in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0853426 | WC0796641 | WC0737573 |
| Sample Date | Client Info | | 03 Sep 2023 | 01 Apr 2023 | 05 Feb 2023 |
| Machine Age | kms | Client Info | 854351 | 736102 | 709650 |
| Oil Age | kms | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | Not Chngd | Not Chngd | Changed |
| Sample Status | | | ABNORMAL | ABNORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel | WC Method | >3.0 | <1.0 | 1.1 | <1.0 |
| Glycol | WC Method | | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|---------------|---------|--------------|----------|----|
| Iron | ppm | ASTM D5185(m) | >90 | 10 | 11 | 30 |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | <1 | 1 |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | >2 | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 1 | 2 | 3 |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | <1 | 1 |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | <1 | <1 |
| Antimony | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 | |
|------------|--------|---------------|---------|--------------|----------|------|
| Boron | ppm | ASTM D5185(m) | 250 | 27 | 54 | 36 |
| Barium | ppm | ASTM D5185(m) | 10 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 100 | 1 | 3 | 4 |
| Manganese | ppm | ASTM D5185(m) | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 450 | 739 | 777 | 804 |
| Calcium | ppm | ASTM D5185(m) | 3000 | 1346 | 1454 | 1481 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 738 | 785 | 822 |
| Zinc | ppm | ASTM D5185(m) | 1350 | 796 | 799 | 823 |
| Sulfur | ppm | ASTM D5185(m) | 4250 | 2483 | 2659 | 2714 |
| Lithium | ppm | ASTM D5185(m) | | <1 | <1 | <1 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 | |
|-----------|--------|---------------|---------|-------------|----------|---|
| Silicon | ppm | ASTM D5185(m) | >25 | ▲ 27 | 4 | 6 |
| Sodium | ppm | ASTM D5185(m) | | 3 | 3 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | 3 | 0 | 4 |

INFRA-RED

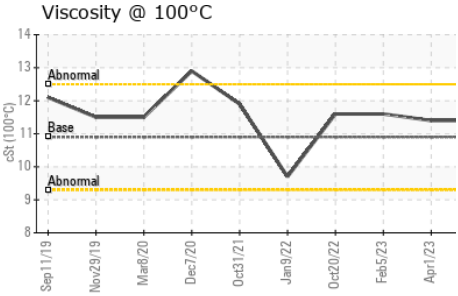
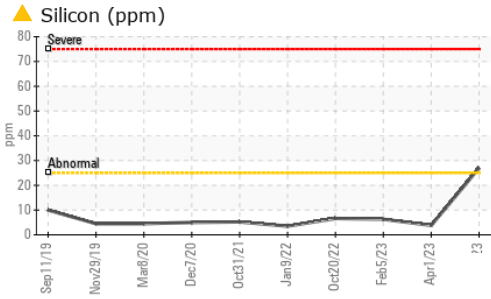
| | method | limit/base | current | history1 | history2 | |
|-----------|----------|-------------|---------|-------------|----------|------|
| Soot % | % | ASTM D7844* | >6 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 9.4 | 9.9 | 10.8 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 22.3 | 23.1 | 24.7 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 | |
|-----------|----------|-------------|---------|-------------|----------|------|
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 15.8 | 15.8 | 17.7 |



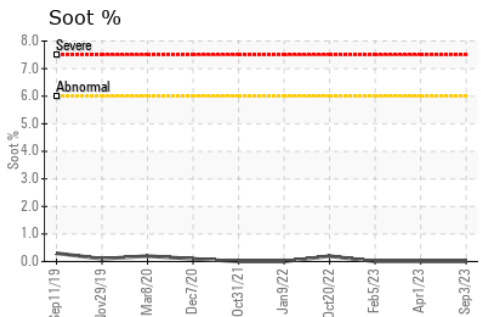
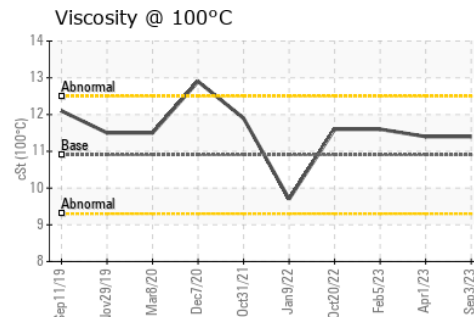
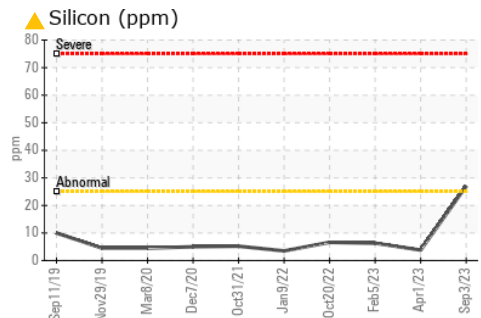
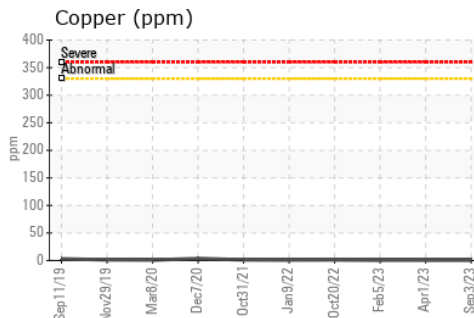
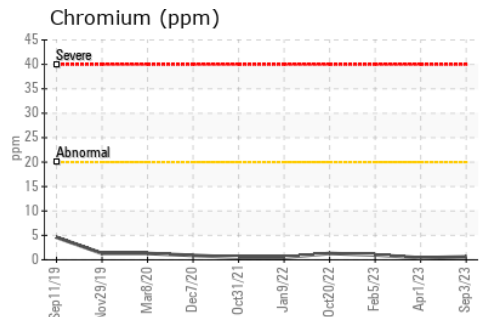
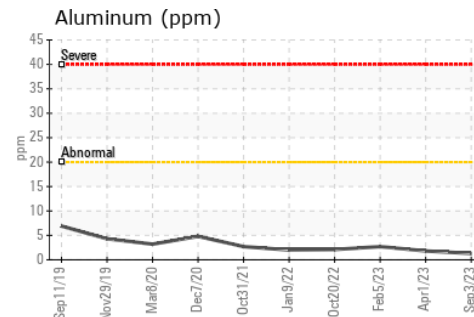
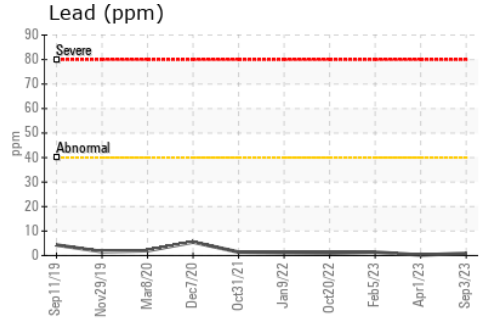
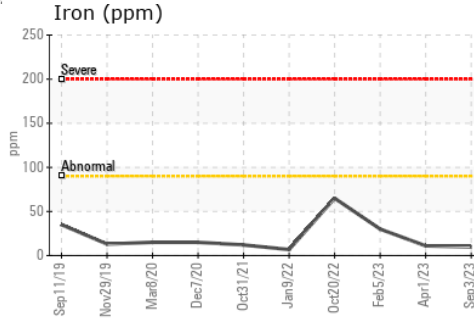
OIL ANALYSIS REPORT



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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D7279(m) | 10.9 | 11.4 | 11.6 |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0853426
Lab Number : 02580597
Unique Number : 5633657
Test Package : MOB 1

Rush Truck Centres
 7450 Torbram Rd.
 Mississauga, ON
 CA L4T 1G9
 Contact: Serdar Okur
 sokur@rushtruckcentres.ca
 T: (905)671-7600
 F:

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.