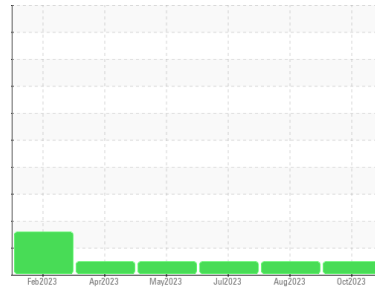




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
2203

Component
Natural Gas Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

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 | | WC0849768 | WC0830279 | WC0830355 |
| Sample Date | Client Info | | 05 Oct 2023 | 18 Aug 2023 | 06 Jul 2023 |
| Machine Age | kms | Client Info | 53118 | 0 | 33586 |
| Oil Age | kms | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | N/A | N/A | N/A |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185(m) >50 | 9 | 9 | 9 |
| Chromium | ppm | ASTM D5185(m) >4 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) >2 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185(m) >3 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) >9 | 1 | 1 | 1 |
| Lead | ppm | ASTM D5185(m) >30 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) >35 | 1 | 1 | 1 |
| Tin | ppm | ASTM D5185(m) >4 | <1 | <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 | 8 | 9 | 10 |
| Barium | ppm | ASTM D5185(m) 10 | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) 100 | 53 | 52 | 50 |
| Manganese | ppm | ASTM D5185(m) | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) 450 | 788 | 801 | 778 |
| Calcium | ppm | ASTM D5185(m) 3000 | 1205 | 1221 | 1175 |
| Phosphorus | ppm | ASTM D5185(m) 1150 | 623 | 674 | 653 |
| Zinc | ppm | ASTM D5185(m) 1350 | 852 | 857 | 818 |
| Sulfur | ppm | ASTM D5185(m) 4250 | 1893 | 1957 | 1857 |
| Lithium | ppm | ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|---------------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >+100 | 4 | 6 | 8 |
| Sodium | ppm | ASTM D5185(m) >158 | 3 | 2 | 3 |
| Potassium | ppm | ASTM D5185(m) >20 | 0 | <1 | 0 |

INFRA-RED

| | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|---------------|----------|----------|
| Soot % | % | ASTM D7844* | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 12.4 | 11.8 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 23.2 | 22.0 |

FLUID DEGRADATION

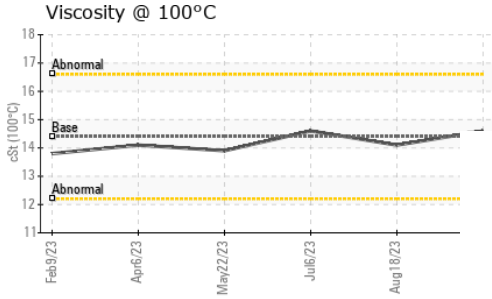
| | method | limit/base | current | history1 | history2 |
|-----------|----------|-------------|---------------|----------|----------|
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 20.1 | 19.9 |

VISUAL

| | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|----------------|------------|----------|
| Emulsified Water | scalar | Visual* | >0.1 | NEG | NEG |
| Free Water | scalar | Visual* | NEG | NEG | NEG |

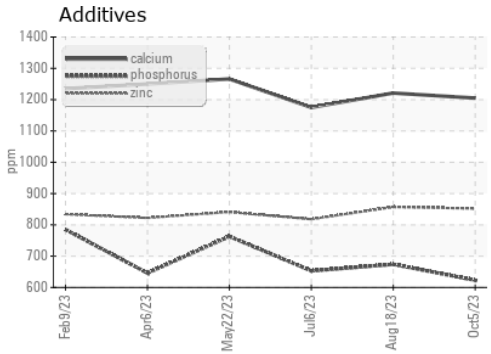
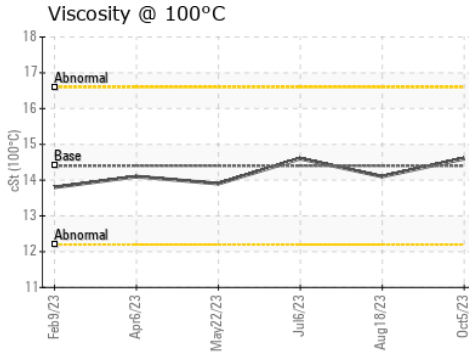
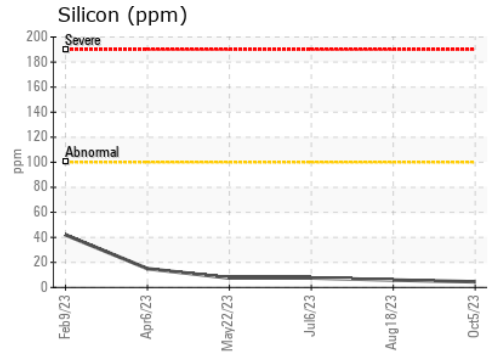
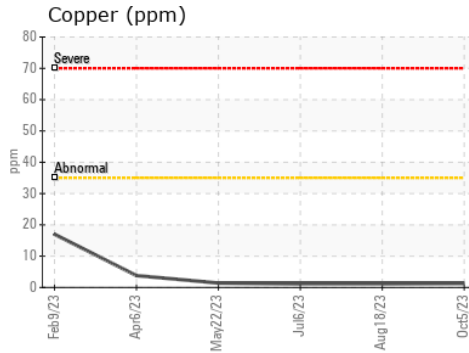
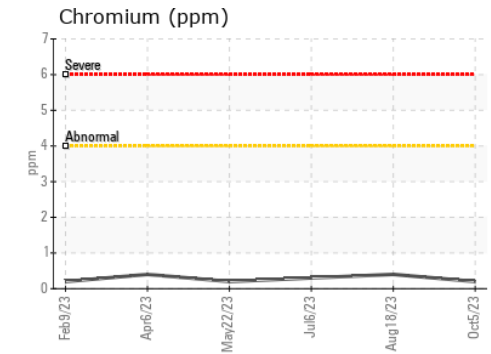
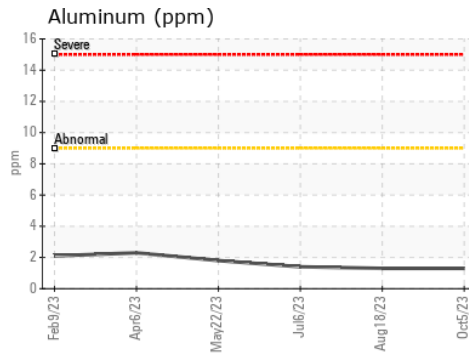
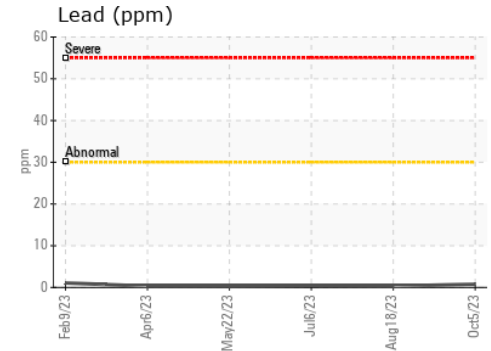
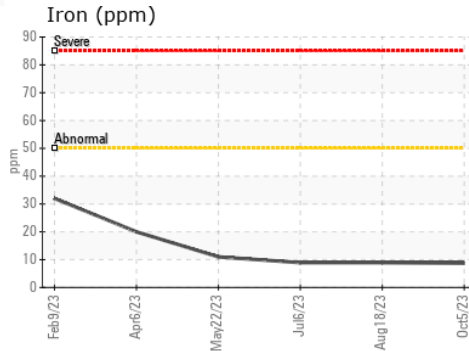


OIL ANALYSIS REPORT



| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|---------------|------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.4 | 14.6 | 14.1 | 14.6 |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0849768
Lab Number : 02588529
Unique Number : 5657595
Test Package : MOB 1

CITY OF HAMILTON
 2200 UPPER JAMES., MOUNTAIN TRANSIT STOREROOM
 MOUNT HOPE, ON
 CA L0R 1W0
 Contact: Jeff Parr
 jeff.parr@hamilton.ca
 T: (905)546-2424
 F: (905)679-4502

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.