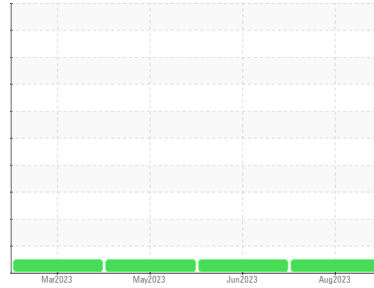




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**[1485798]**

Machine Id  
**2217**

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 |             |            | <b>WC0830193</b>   | WC0811356   | WC0811378   |
| Sample Date        | Client Info |             |            | <b>03 Aug 2023</b> | 22 Jun 2023 | 08 May 2023 |
| Machine Age        | kms         | Client Info |            | <b>32442</b>       | 0           | 0           |
| Oil Age            | kms         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | N/A         |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

| WEAR METALS |     | method        | limit/base | current      | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185(m) | >50        | <b>8</b>     | 10       | 15       |
| Chromium    | ppm | ASTM D5185(m) | >4         | <b>&lt;1</b> | <1       | <1       |
| Nickel      | ppm | ASTM D5185(m) | >2         | <b>&lt;1</b> | 0        | <1       |
| Titanium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | 1        |
| Silver      | ppm | ASTM D5185(m) | >3         | <b>&lt;1</b> | 0        | 0        |
| Aluminum    | ppm | ASTM D5185(m) | >9         | <b>1</b>     | 1        | 2        |
| Lead        | ppm | ASTM D5185(m) | >30        | <b>&lt;1</b> | <1       | <1       |
| Copper      | ppm | ASTM D5185(m) | >35        | <b>1</b>     | 1        | 3        |
| Tin         | ppm | ASTM D5185(m) | >4         | <b>&lt;1</b> | <1       | <1       |
| Antimony    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Vanadium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Beryllium   | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | 0        |

| ADDITIVES  |     | method        | limit/base | current      | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185(m) | 250        | <b>8</b>     | 10       | 12       |
| Barium     | ppm | ASTM D5185(m) | 10         | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm | ASTM D5185(m) | 100        | <b>54</b>    | 50       | 51       |
| Manganese  | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | 2        |
| Magnesium  | ppm | ASTM D5185(m) | 450        | <b>841</b>   | 770      | 776      |
| Calcium    | ppm | ASTM D5185(m) | 3000       | <b>1191</b>  | 1185     | 1243     |
| Phosphorus | ppm | ASTM D5185(m) | 1150       | <b>757</b>   | 646      | 712      |
| Zinc       | ppm | ASTM D5185(m) | 1350       | <b>921</b>   | 816      | 799      |
| Sulfur     | ppm | ASTM D5185(m) | 4250       | <b>2068</b>  | 1865     | 1957     |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | <1       |

| CONTAMINANTS |     | method        | limit/base | current      | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) | >+100      | <b>6</b>     | 7        | 13       |
| Sodium       | ppm | ASTM D5185(m) | >158       | <b>2</b>     | 2        | 3        |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | 0        | <1       |

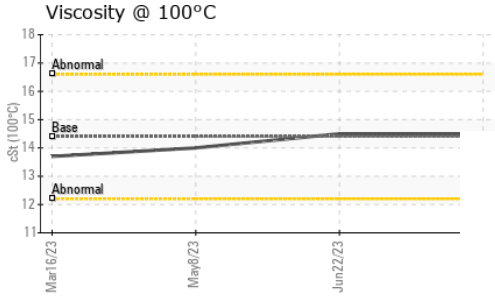
| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | ASTM D7844* |            | <b>0</b>    | 0        | 0        |
| Nitration | Abs/cm   | ASTM D7624* | >20        | <b>11.0</b> | 12.0     | 11.2     |
| Sulfation | Abs/.1mm | ASTM D7415* | >30        | <b>21.9</b> | 22.0     | 21.2     |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | ASTM D7414* | >25        | <b>18.8</b> | 20.1     | 18.0     |

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

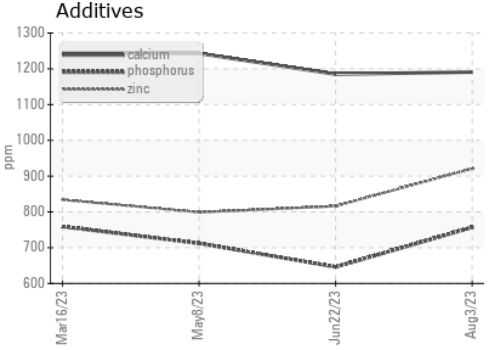
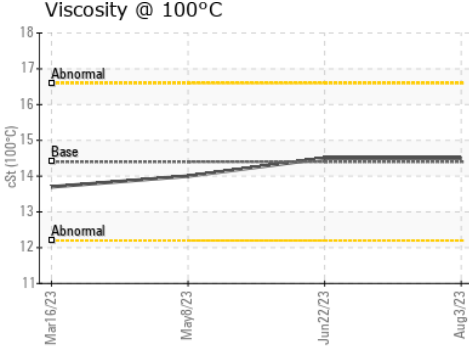
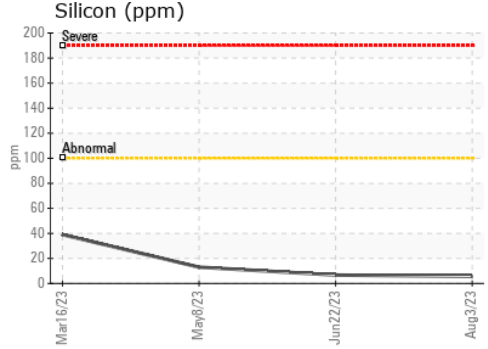
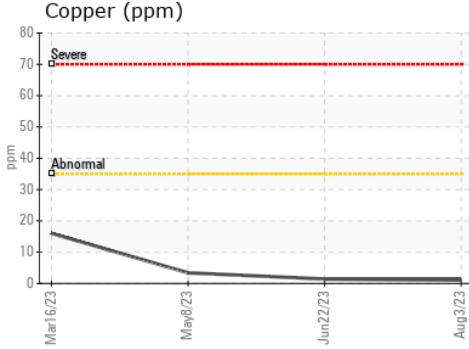
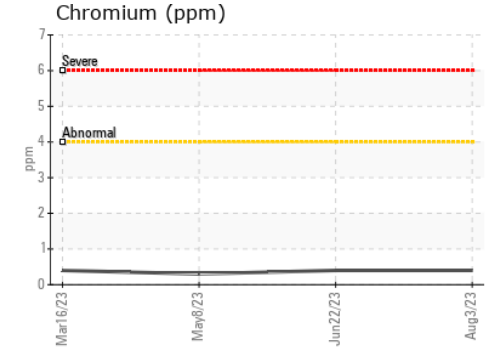
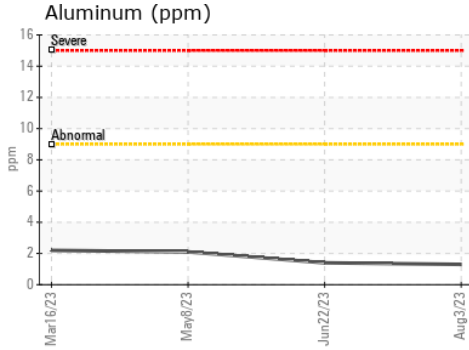
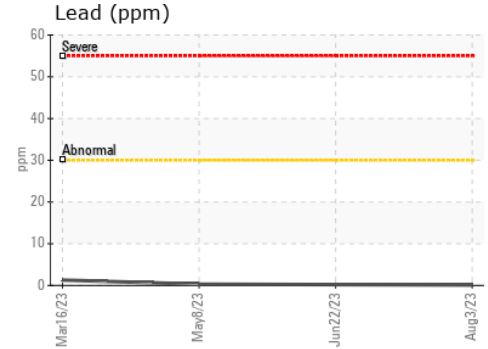
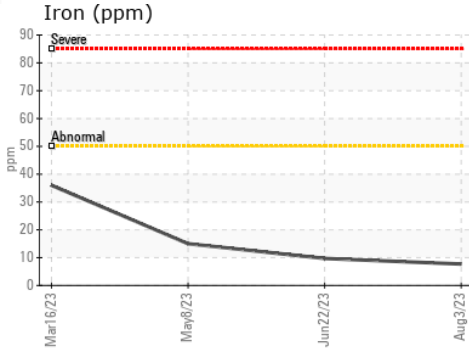


# OIL ANALYSIS REPORT



| FLUID PROPERTIES |     | method        | limit/base | current     | history1 | history2 |
|------------------|-----|---------------|------------|-------------|----------|----------|
| Visc @ 100°C     | cSt | ASTM D7279(m) | 14.4       | <b>14.5</b> | 14.5     | 14.0     |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0830193 **Received** : 14 Aug 2023  
**Lab Number** : 02575611 **Diagnosed** : 14 Aug 2023  
**Unique Number** : 5620662 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**CITY OF HAMILTON**  
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 MOUNT HOPE, ON  
 CA L0R 1W0  
 Contact: Cliff Bird  
 cliff.bird@hamilton.ca  
 T:  
 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.