



# OIL ANALYSIS REPORT

Sample Rating Trend

**WEAR**



Area  
**[66901]**  
 Machine Id  
**VOLVO VNR660 4606**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SAE 10W30 (--- GAL)**



## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

Nickel ppm levels are marginal. All other component wear rates are normal.

### 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>WC0909047</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>20 Mar 2024</b> | ---      | ---      |
| Machine Age   | kms         | Client Info | <b>415052</b>      | ---      | ---      |
| Oil Age       | kms         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>Changed</b>     | ---      | ---      |
| Sample Status |             |             | <b>MARGINAL</b>    | ---      | ---      |

## CONTAMINATION

|        | method    | limit/base | current        | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel   | WC Method | >6.0       | <b>&lt;1.0</b> | ---      | ---      |
| Water  | WC Method | >0.2       | <b>NEG</b>     | ---      | ---      |
| Glycol | WC Method |            | <b>NEG</b>     | ---      | ---      |

## WEAR METALS

|           | method | limit/base         | current      | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Iron      | ppm    | ASTM D5185(m) >100 | <b>34</b>    | ---      | ---      |
| Chromium  | ppm    | ASTM D5185(m) >20  | <b>&lt;1</b> | ---      | ---      |
| Nickel    | ppm    | ASTM D5185(m) >2   | <b>▲ 2</b>   | ---      | ---      |
| Titanium  | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Silver    | ppm    | ASTM D5185(m) >2   | <b>0</b>     | ---      | ---      |
| Aluminum  | ppm    | ASTM D5185(m) >25  | <b>4</b>     | ---      | ---      |
| Lead      | ppm    | ASTM D5185(m) >40  | <b>&lt;1</b> | ---      | ---      |
| Copper    | ppm    | ASTM D5185(m) >330 | <b>10</b>    | ---      | ---      |
| Tin       | ppm    | ASTM D5185(m) >15  | <b>1</b>     | ---      | ---      |
| Antimony  | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Vanadium  | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Beryllium | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Cadmium   | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |

## ADDITIVES

|            | method | limit/base         | current      | history1 | history2 |
|------------|--------|--------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185(m) 1    | <b>5</b>     | ---      | ---      |
| Barium     | ppm    | ASTM D5185(m) 1    | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185(m) 1    | <b>59</b>    | ---      | ---      |
| Manganese  | ppm    | ASTM D5185(m) 1    | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185(m) 10   | <b>875</b>   | ---      | ---      |
| Calcium    | ppm    | ASTM D5185(m) 2942 | <b>1281</b>  | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185(m) 1102 | <b>879</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185(m) 1351 | <b>1148</b>  | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185(m) 3903 | <b>2186</b>  | ---      | ---      |
| Lithium    | ppm    | ASTM D5185(m)      | <b>&lt;1</b> | ---      | ---      |

## CONTAMINANTS

|           | method | limit/base        | current  | history1 | history2 |
|-----------|--------|-------------------|----------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >25 | <b>7</b> | ---      | ---      |
| Sodium    | ppm    | ASTM D5185(m)     | <b>2</b> | ---      | ---      |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>4</b> | ---      | ---      |

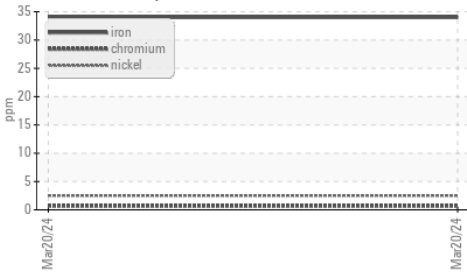
## INFRA-RED

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | ASTM D7844* >3  | <b>0.7</b>  | ---      | ---      |
| Nitration | Abs/cm   | ASTM D7624* >20 | <b>12.0</b> | ---      | ---      |
| Sulfation | Abs./1mm | ASTM D7415* >30 | <b>24.9</b> | ---      | ---      |



# OIL ANALYSIS REPORT

### ▲ Ferrous Alloys



### FLUID DEGRADATION

| Method    | Limit/Base          | Current     | History1 | History2 |
|-----------|---------------------|-------------|----------|----------|
| Oxidation | Abs:1mm ASTM D7414* | <b>21.3</b> | ---      | ---      |

### VISUAL

| Method           | Limit/Base     | Current    | History1 | History2 |
|------------------|----------------|------------|----------|----------|
| Emulsified Water | scalar Visual* | <b>NEG</b> | ---      | ---      |
| Free Water       | scalar Visual* | <b>NEG</b> | ---      | ---      |

### FLUID PROPERTIES

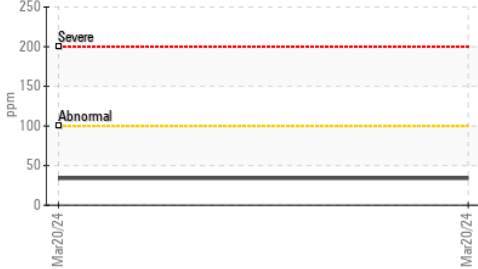
| Method       | Limit/Base        | Current     | History1 | History2 |
|--------------|-------------------|-------------|----------|----------|
| Visc @ 100°C | cSt ASTM D7279(m) | <b>11.4</b> | ---      | ---      |

### GRAPHS

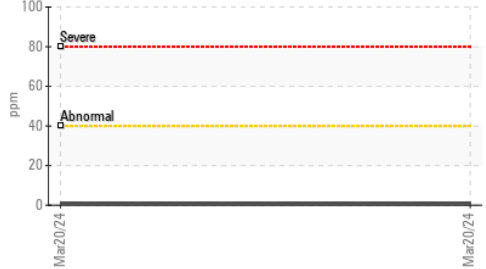
### Viscosity @ 100°C



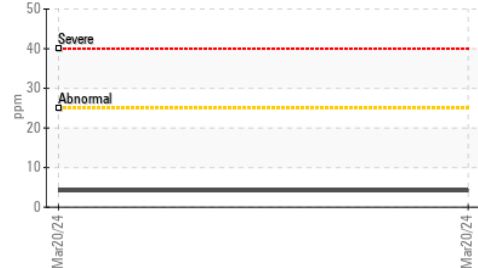
### Iron (ppm)



### Lead (ppm)



### Aluminum (ppm)



### Chromium (ppm)



### Copper (ppm)



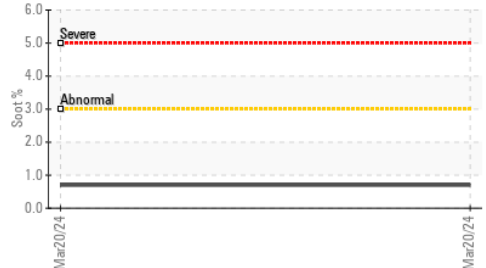
### Silicon (ppm)



### Viscosity @ 100°C



### Soot %



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **PERFORMANCE EQUIPMENT - VISION TRUCK**  
**Sample No.** : WC0909047 **Received** : 25 Mar 2024 **415 EVANS AVENUE**  
**Lab Number** : **02624122** **Tested** : 25 Mar 2024 **ETOBICOKE, ON**  
**Unique Number** : 5749241 **Diagnosed** : 25 Mar 2024 - Kevin Marson **CA M8W 0B3**  
**Test Package** : MOB 1 **Contact: Service**

To discuss this sample report, contact Customer Service at 1-800-268-2131. **etobservice@visiontruckgroup.com**  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. **T:**  
 Validity of results and interpretation are based on the sample and information as supplied. **F:**