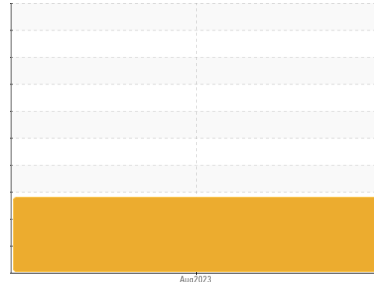


Area  
**SHARP BUS LINES**  
Machine Id  
**INTERNATIONAL 1366**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA 15W40 (--- GAL)**



**DIAGNOSIS**

**Recommendation**  
We advise that you check the fuel injection system. The oil 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 high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

**Fluid Condition**  
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

**SAMPLE INFORMATION**

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>PC0081412</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>09 Aug 2023</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>192329</b>      | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>1579</b>        | ---      | ---      |
| Oil Changed   | Client Info |             | <b>Changed</b>     | ---      | ---      |
| Sample Status |             |             | <b>SEVERE</b>      | ---      | ---      |

**CONTAMINATION**

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

**WEAR METALS**

|           | method | limit/base         | current      | history1 | history2 |
|-----------|--------|--------------------|--------------|----------|----------|
| Iron      | ppm    | ASTM D5185(m) >100 | <b>15</b>    | ---      | ---      |
| Chromium  | ppm    | ASTM D5185(m) >20  | <b>1</b>     | ---      | ---      |
| Nickel    | ppm    | ASTM D5185(m) >4   | <b>&lt;1</b> | ---      | ---      |
| Titanium  | ppm    | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Silver    | ppm    | ASTM D5185(m) >3   | <b>&lt;1</b> | ---      | ---      |
| Aluminum  | ppm    | ASTM D5185(m) >20  | <b>5</b>     | ---      | ---      |
| Lead      | ppm    | ASTM D5185(m) >40  | <b>&lt;1</b> | ---      | ---      |
| Copper    | ppm    | ASTM D5185(m) >330 | <b>&lt;1</b> | ---      | ---      |
| Tin       | ppm    | ASTM D5185(m) >15  | <b>0</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) | <b>&lt;1</b> | ---      | ---      |
| Barium     | ppm    | ASTM D5185(m) | <b>&lt;1</b> | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185(m) | <b>48</b>    | ---      | ---      |
| Manganese  | ppm    | ASTM D5185(m) | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185(m) | <b>747</b>   | ---      | ---      |
| Calcium    | ppm    | ASTM D5185(m) | <b>806</b>   | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185(m) | <b>819</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185(m) | <b>941</b>   | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185(m) | <b>2059</b>  | ---      | ---      |
| Lithium    | ppm    | ASTM D5185(m) | <b>&lt;1</b> | ---      | ---      |

**CONTAMINANTS**

|           | method | limit/base        | current     | history1 | history2 |
|-----------|--------|-------------------|-------------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >25 | <b>3</b>    | ---      | ---      |
| Sodium    | ppm    | ASTM D5185(m)     | <b>2</b>    | ---      | ---      |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>0</b>    | ---      | ---      |
| Fuel      | %      | ASTM D7593* >2.0  | <b>14.1</b> | ---      | ---      |

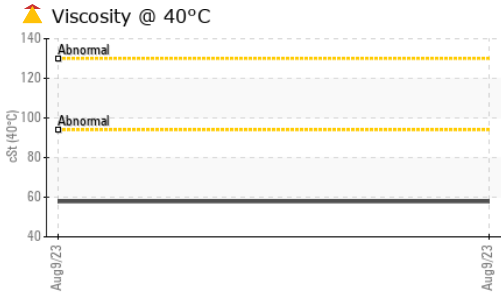
**INFRA-RED**

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | ASTM D7844* >3  | <b>0.8</b>  | ---      | ---      |
| Nitration | Abs/cm   | ASTM D7624* >20 | <b>9.2</b>  | ---      | ---      |
| Sulfation | Abs/.1mm | ASTM D7415* >30 | <b>23.3</b> | ---      | ---      |

**FLUID DEGRADATION**

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | ASTM D7414* >25 | <b>21.6</b> | ---      | ---      |

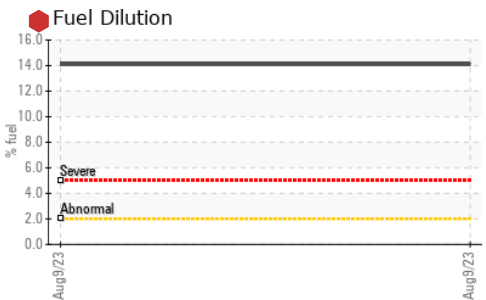
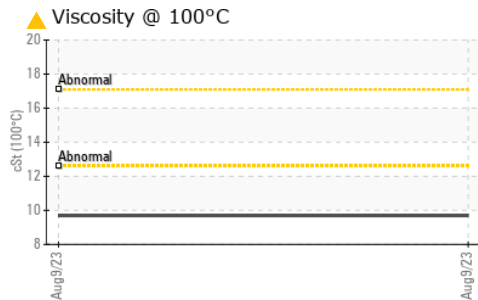
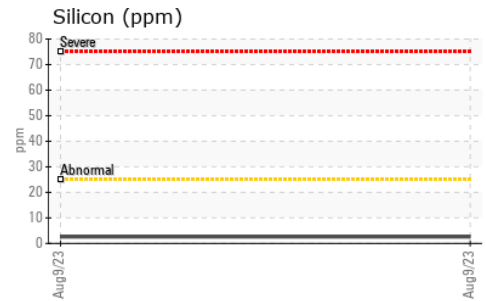
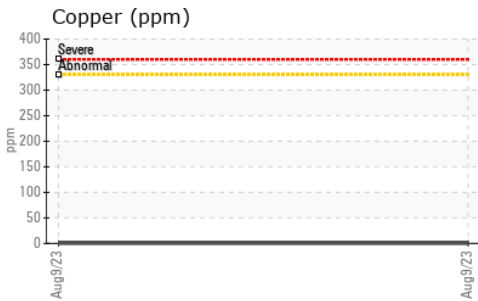
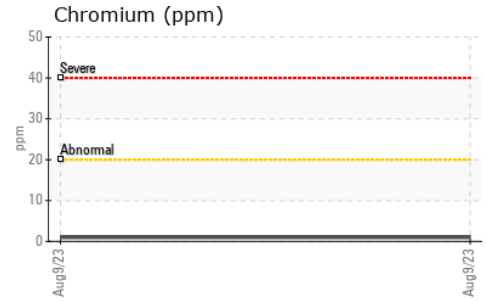
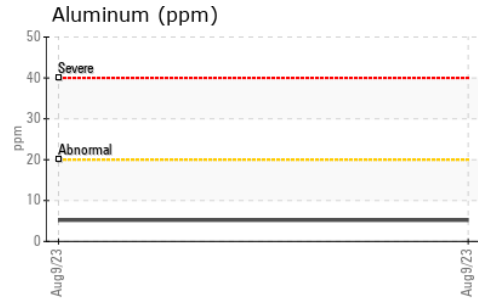
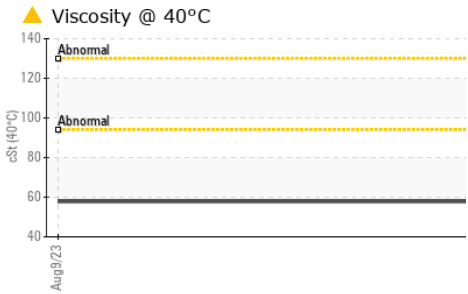
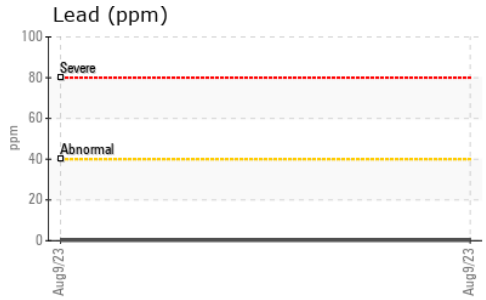
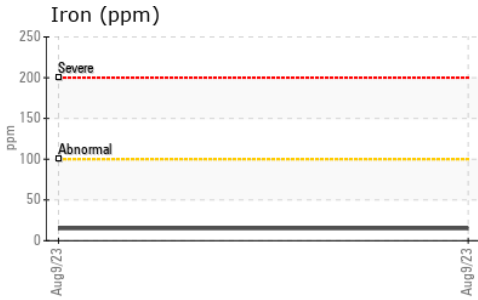
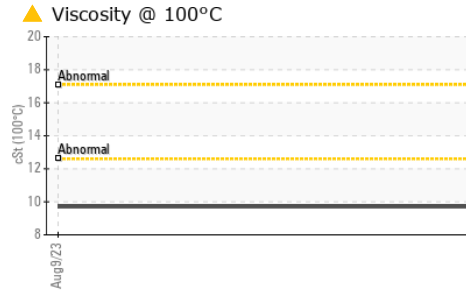
# OIL ANALYSIS REPORT



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

| FLUID PROPERTIES     |       | method        | limit/base | current     | history1 | history2 |
|----------------------|-------|---------------|------------|-------------|----------|----------|
| Visc @ 40°C          | cSt   | ASTM D7279(m) |            | <b>57.8</b> | ---      | ---      |
| Visc @ 100°C         | cSt   | ASTM D7279(m) |            | <b>9.7</b>  | ---      | ---      |
| Viscosity Index (VI) | Scale | ASTM D2270*   |            | <b>152</b>  | ---      | ---      |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0081412 **Received** : 18 Oct 2023  
**Lab Number** : **02589873** **Diagnosed** : 19 Oct 2023  
**Unique Number** : 5658939 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, KV40, PercentFuel, VI )

**ICSB - Brantford**  
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 Brantford, ON  
 CA N3T 5L8  
 Contact: Doug Hall  
 Djhall@sharpbus.com  
 T: (519)751-3434  
 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.