



|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |



Machine Id  
**801057**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (20 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>GFL0107129</b>  | GFL0094196  | GFL0091030  |
| Sample Date    |     | Client Info |           | <b>18 Jan 2024</b> | 17 Oct 2023 | 04 Aug 2023 |
| Machine Age    | hrs | Client Info |           | <b>12675</b>       | 59468       | 59468       |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 10387       |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

All component wear rates are normal.

|          |     |               |      |              |    |    |
|----------|-----|---------------|------|--------------|----|----|
| Iron     | ppm | ASTM D5185(m) | >80  | <b>26</b>    | 30 | 45 |
| Chromium | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | <1 | 1  |
| Nickel   | ppm | ASTM D5185(m) | >2   | <b>&lt;1</b> | 0  | <1 |
| Titanium | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | <1 |
| Silver   | ppm | ASTM D5185(m) | >3   | <b>0</b>     | <1 | 0  |
| Aluminum | ppm | ASTM D5185(m) | >30  | <b>3</b>     | 4  | 9  |
| Lead     | ppm | ASTM D5185(m) | >30  | <b>0</b>     | <1 | 0  |
| Copper   | ppm | ASTM D5185(m) | >150 | <b>1</b>     | 1  | 2  |
| Tin      | ppm | ASTM D5185(m) | >5   | <b>0</b>     | 0  | 0  |
| Vanadium | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | 0  |

**CONTAMINATION**

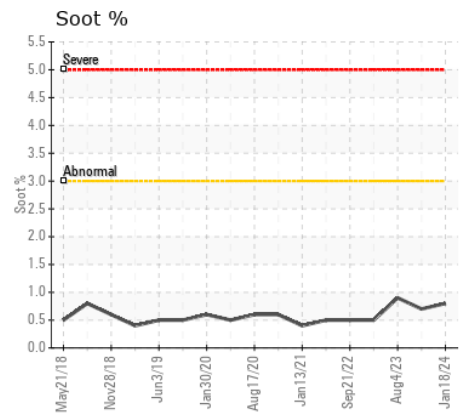
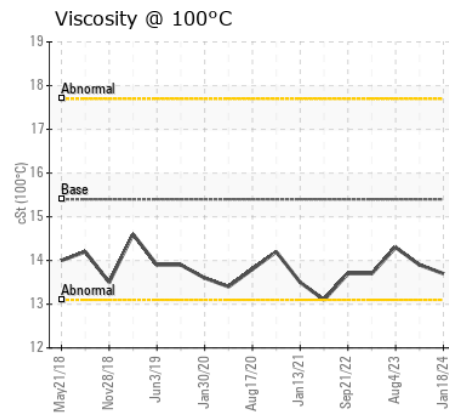
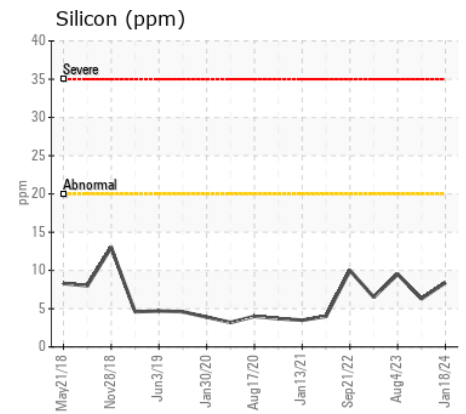
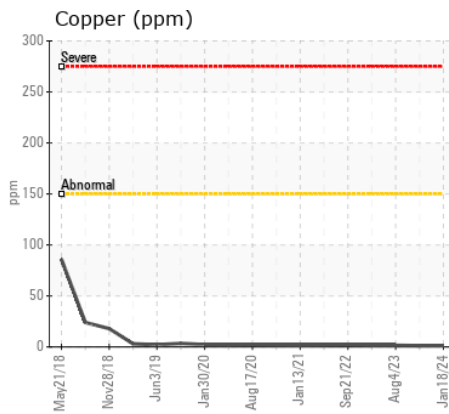
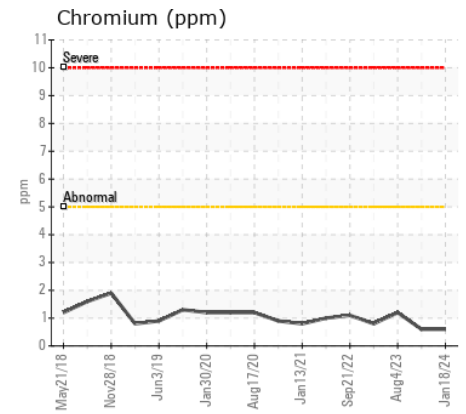
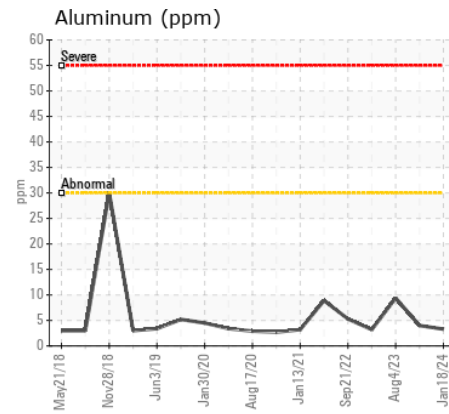
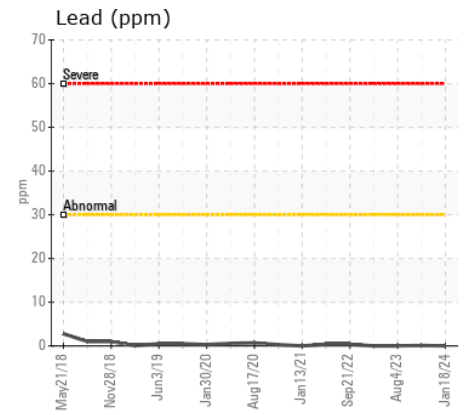
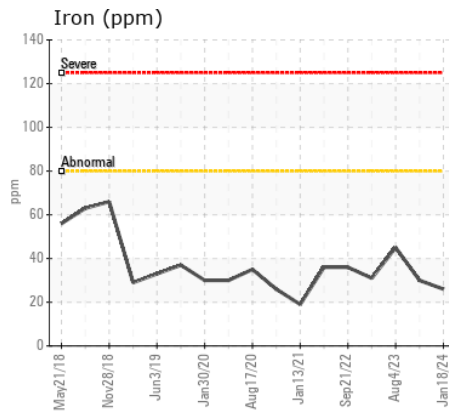
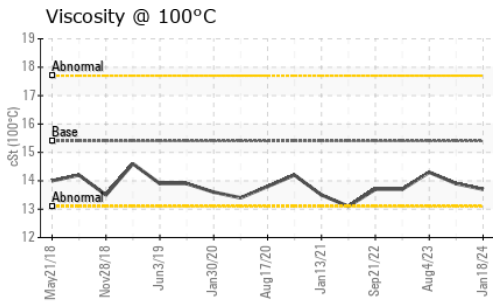
There is no indication of any contamination in the oil.

|                  |          |               |      |                |      |      |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon          | ppm      | ASTM D5185(m) | >20  | <b>8</b>       | 6    | 10   |
| Potassium        | ppm      | ASTM D5185(m) | >20  | <b>3</b>       | 5    | 16   |
| Fuel             |          | WC Method     | >5   | <b>&lt;1.0</b> | <1.0 | <1.0 |
| Water            |          | WC Method     | >0.2 | <b>NEG</b>     | NEG  | NEG  |
| Glycol           |          | WC Method     |      | <b>NEG</b>     | 0.0  | 0.0  |
| Soot %           | %        | ASTM D7844*   | >3   | <b>0.8</b>     | 0.7  | 0.9  |
| Nitration        | Abs/cm   | ASTM D7624*   | >20  | <b>10.4</b>    | 9.3  | 10.9 |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30  | <b>22.9</b>    | 20.6 | 23.8 |
| Emulsified Water | scalar   | Visual*       | >0.2 | <b>NEG</b>     | NEG  | NEG  |

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

|              |          |               |      |             |      |      |
|--------------|----------|---------------|------|-------------|------|------|
| Sodium       | ppm      | ASTM D5185(m) |      | <b>13</b>   | 20   | 33   |
| Boron        | ppm      | ASTM D5185(m) | 0    | <b>25</b>   | 6    | 8    |
| Barium       | ppm      | ASTM D5185(m) | 0    | <b>0</b>    | <1   | 0    |
| Molybdenum   | ppm      | ASTM D5185(m) | 60   | <b>64</b>   | 61   | 62   |
| Manganese    | ppm      | ASTM D5185(m) | 0    | <b>0</b>    | 0    | <1   |
| Magnesium    | ppm      | ASTM D5185(m) | 1010 | <b>871</b>  | 953  | 964  |
| Calcium      | ppm      | ASTM D5185(m) | 1070 | <b>1121</b> | 1088 | 1077 |
| Phosphorus   | ppm      | ASTM D5185(m) | 1150 | <b>983</b>  | 987  | 1055 |
| Zinc         | ppm      | ASTM D5185(m) | 1270 | <b>1173</b> | 1206 | 1229 |
| Sulfur       | ppm      | ASTM D5185(m) | 2060 | <b>2560</b> | 2430 | 2367 |
| Oxidation    | Abs/.1mm | ASTM D7414*   | >25  | <b>19.3</b> | 16.2 | 19.2 |
| Visc @ 100°C | cSt      | ASTM D7279(m) | 15.4 | <b>13.7</b> | 13.9 | 14.3 |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0107129 **Received** : 22 Jan 2024  
**Lab Number** : 02610145 **Diagnosed** : 22 Jan 2024  
**Unique Number** : 5711231 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**GFL Environmental - 217 - Aurora**  
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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.