



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

Machine Id  
**222048-670466**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>GFL0101975</b>  | GFL0101953  | GFL0101967  |
| Sample Date    |     | Client Info |           | <b>30 Jan 2024</b> | 22 Dec 2023 | 30 Nov 2023 |
| Machine Age    | hrs | Client Info |           | <b>6408</b>        | 6400        | 6391        |
| Oil Age        | hrs | Client Info |           | <b>8</b>           | 128         | 119         |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Changed     | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Changed     | Not Changd  |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | ABNORMAL    |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |       |       |
|--------------|--------|-------------|------|--------------|-------|-------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>24</b>    | ▲ 126 | ▲ 134 |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | 3     | 3     |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>&lt;1</b> | <1    | 1     |
| Titanium     | ppm    | ASTM D5185m | >2   | <b>&lt;1</b> | 0     | <1    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0     | 0     |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>10</b>    | ▲ 50  | ▲ 51  |
| Lead         | ppm    | ASTM D5185m | >40  | <b>1</b>     | 0     | 0     |
| Copper       | ppm    | ASTM D5185m | >330 | <b>&lt;1</b> | 3     | 4     |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | 0     | 0     |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0     | 0     |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE  | NONE  |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE  | NONE  |

**CONTAMINATION**

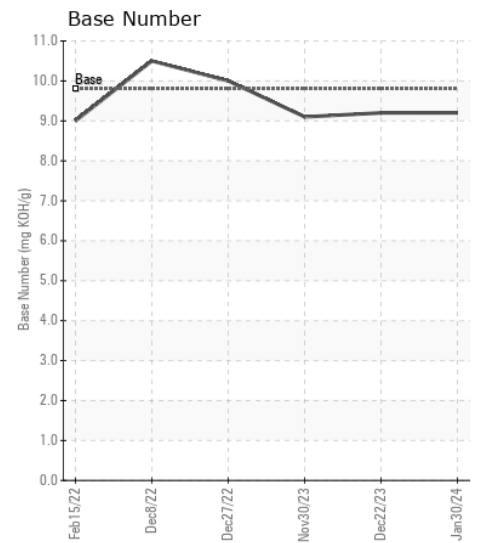
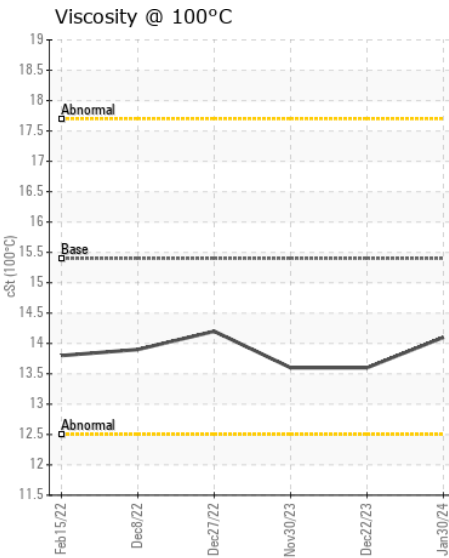
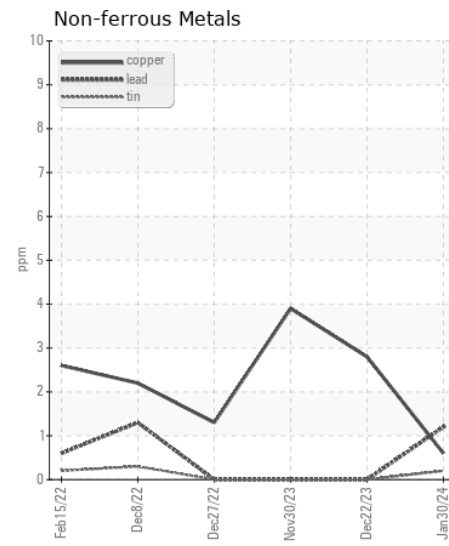
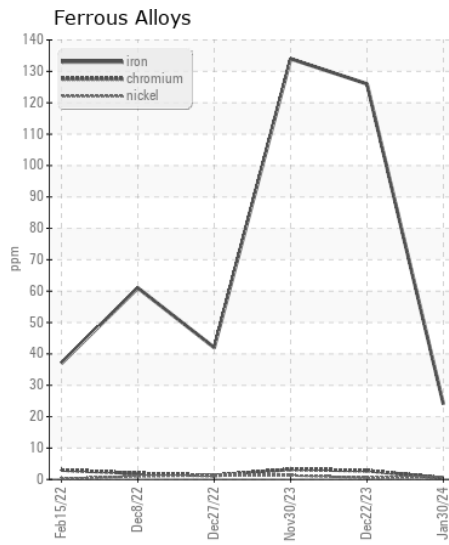
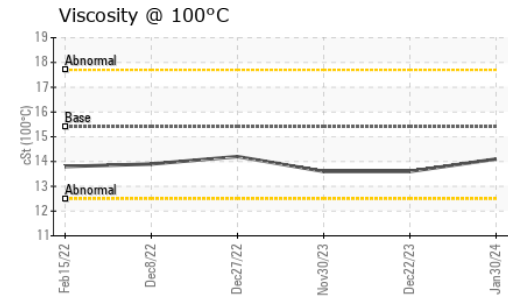
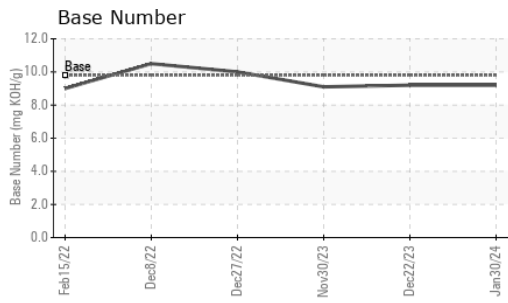
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>10</b>      | 12    | 13    |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>2</b>       | 0     | 2     |
| 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>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.1</b>     | 0.4   | 0.4   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>4.9</b>     | 8.1   | 7.8   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>17.2</b>    | 18.1  | 18.0  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | NEG   | NEG   |

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |      |              |      |      |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>1</b>     | 2    | 0    |
| Boron            | ppm      | ASTM D5185m | 0    | <b>7</b>     | 5    | 6    |
| Barium           | ppm      | ASTM D5185m | 0    | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 60   | <b>56</b>    | 46   | 62   |
| Manganese        | ppm      | ASTM D5185m | 0    | <b>&lt;1</b> | 1    | 1    |
| Magnesium        | ppm      | ASTM D5185m | 1010 | <b>892</b>   | 843  | 917  |
| Calcium          | ppm      | ASTM D5185m | 1070 | <b>1000</b>  | 972  | 1078 |
| Phosphorus       | ppm      | ASTM D5185m | 1150 | <b>1066</b>  | 843  | 1040 |
| Zinc             | ppm      | ASTM D5185m | 1270 | <b>1236</b>  | 1089 | 1197 |
| Sulfur           | ppm      | ASTM D5185m | 2060 | <b>3181</b>  | 2744 | 3142 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>13.4</b>  | 16.0 | 15.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.8  | <b>9.2</b>   | 9.2  | 9.1  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>14.1</b>  | 13.6 | 13.6 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0101975 **Received** : 31 Jan 2024  
**Lab Number** : 06075597 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10857688 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)