



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

Machine Id  
**711009**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>GFL0119120</b>  | GFL0095987  | GFL0071742  |
| Sample Date    |     | Client Info |           | <b>27 Jun 2024</b> | 04 Jan 2024 | 07 Jun 2023 |
| Machine Age    | hrs | Client Info |           | <b>7157</b>        | 5997        | 4643        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 600         | 600         |
| Filter Age     | hrs | Client Info |           | <b>370</b>         | 600         | 600         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Oil Added   |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

Metal levels are typical for a new component breaking in.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >50  | <b>6</b>     | 12   | 3    |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | <1   | 0    |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >9   | <b>1</b>     | 4    | 0    |
| Lead         | ppm    | ASTM D5185m | >30  | <b>&lt;1</b> | 4    | 0    |
| Copper       | ppm    | ASTM D5185m | >35  | <b>&lt;1</b> | 2    | 0    |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | <1   | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>VLITE</b> | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

**CONTAMINATION**

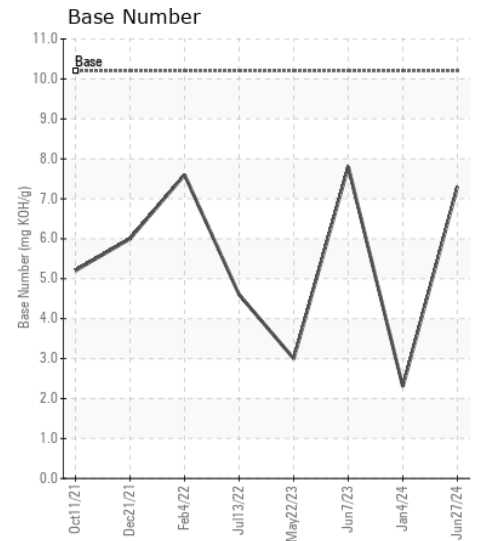
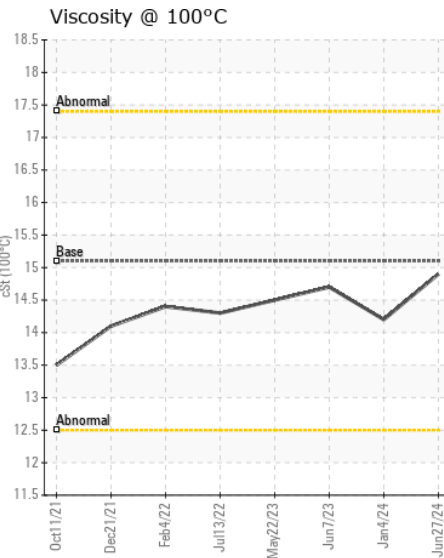
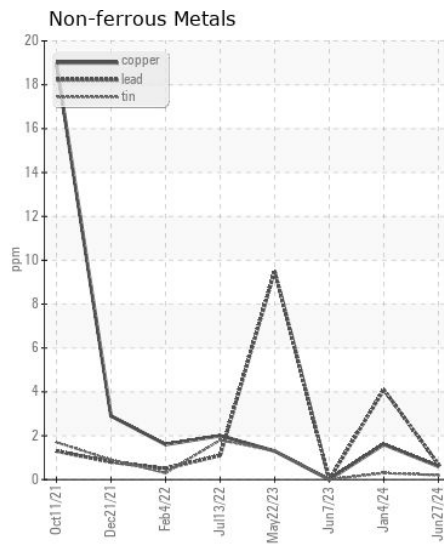
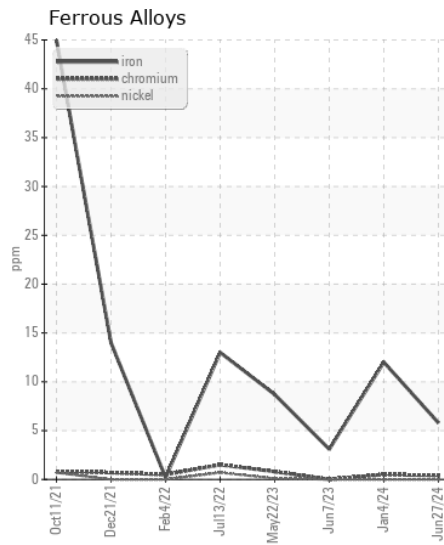
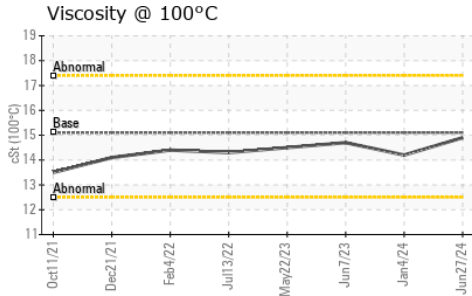
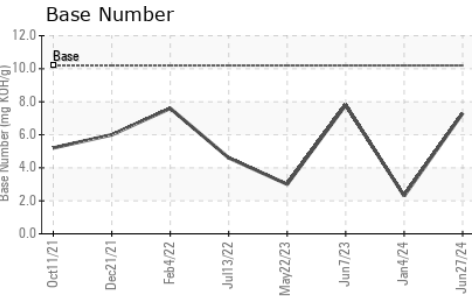
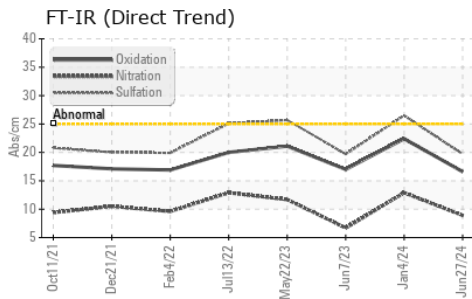
There is no indication of any contamination in the oil.

|                  |          |             |       |              |       |       |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >+100 | <b>4</b>     | 3     | 5     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>0</b>     | <1    | <1    |
| Water            |          | WC Method   | >0.1  | <b>NEG</b>   | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 |       | <b>0</b>     | 0     | 0.1   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>8.9</b>   | 12.9  | 6.7   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>19.7</b>  | 26.5  | 19.7  |
| 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     | >0.1  | <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>4</b>     | 11   | 4    |
| Boron            | ppm      | ASTM D5185m | 50   | <b>19</b>    | 4    | 40   |
| Barium           | ppm      | ASTM D5185m | 5    | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 50   | <b>48</b>    | 53   | 50   |
| Manganese        | ppm      | ASTM D5185m | 0    | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m | 560  | <b>599</b>   | 591  | 554  |
| Calcium          | ppm      | ASTM D5185m | 1510 | <b>1730</b>  | 1589 | 1588 |
| Phosphorus       | ppm      | ASTM D5185m | 780  | <b>848</b>   | 778  | 818  |
| Zinc             | ppm      | ASTM D5185m | 870  | <b>1037</b>  | 972  | 983  |
| Sulfur           | ppm      | ASTM D5185m | 2040 | <b>3114</b>  | 2353 | 3138 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>16.6</b>  | 22.4 | 17.0 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10.2 | <b>7.3</b>   | 2.3  | 7.8  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.1 | <b>14.9</b>  | 14.2 | 14.7 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0119120 **Received** : 01 Jul 2024  
**Lab Number** : 06224280 **Tested** : 02 Jul 2024  
**Unique Number** : 11102477 **Diagnosed** : 02 Jul 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 882 - Gainesville**  
 5002 SW 41st Blvd  
 Gainesville, FL  
 US 32608  
 Contact: ROBERT CLARK  
 robert.clark@gflenv.com

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)

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F: