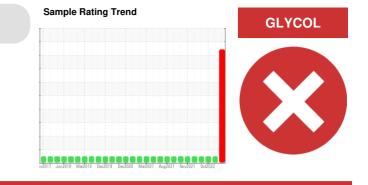
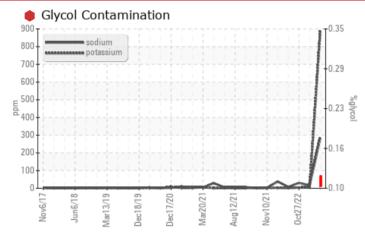


## **PROBLEM SUMMARY**



Machine Id **2677C** Component **Natural Gas Engine** Fluid **PETRO CANADA DURON GEO LD 15W40 (40 QTS)** 

#### COMPONENT CONDITION SUMMARY



#### RECOMMENDATION

We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

| PROBLEMATIC TEST RESULTS |     |             |     |          |        |        |  |  |
|--------------------------|-----|-------------|-----|----------|--------|--------|--|--|
| Sample Status            |     |             |     | SEVERE   | NORMAL | NORMAL |  |  |
| Sodium                   | ppm | ASTM D5185m |     | <u> </u> | 17     | 30     |  |  |
| Potassium                | ppm | ASTM D5185m | >20 | <u> </u> | 7      | 4      |  |  |
| Glycol                   | %   | *ASTM D2982 |     | 0.12     |        |        |  |  |

Customer Id: GFL030 Sample No.: GFL0070764 Lab Number: 05852857 Test Package: FLEET



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Don Baldridge +1 <u>don.b505@comcast.net</u>

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>

| Page  | 1 | of 4 | 4 |
|-------|---|------|---|
| i ugo |   |      |   |

| RECOMMENDED ACTIONS |        |      |         |   |  |  |  |
|---------------------|--------|------|---------|---|--|--|--|
| Action              | Status | Date | Done By | Description   |  |  |  |
| Change Fluid        |        |      | ?       | Oil and filter change at the time of sampling has been noted. |  |  |  |
| Change Filter       |        |      | ?       | Oil and filter change at the time of sampling has been noted. |  |  |  |
| Resample            |        |      | ?       | We recommend an early resample to monitor this condition.     |  |  |  |
| Check Glycol Access |        |      | ?       | We advise that you check for the source of the coolant leak.  |  |  |  |

#### HISTORICAL DIAGNOSIS



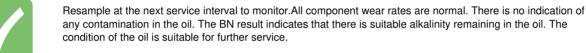
26 Jan 2023 Diag: Don Baldridge

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





27 Oct 2022 Diag: Angela Borella





07 Jan 2022 Diag: Wes Davis

#### NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





### **OIL ANALYSIS REPORT**

#### Sample Rating Trend

GLYCOL





GFL0047424

27 Oct 2022

Changed

NORMAL

<1 0

0.1 11.5 24.0

20.3 5.0

#### 

|                          | SAMPLE INFORM    | <b>JATION</b> | method      | limit/base | current     | history1    | his  |
|--------------------------|------------------|---------------|-------------|------------|-------------|-------------|--|
|                          | Sample Number    |               | Client Info |            | GFL0070764  | GFL0049148  | GFL00  |
| or the source of the     | Sample Date      |               | Client Info |            | 18 May 2023 | 26 Jan 2023 | 27 Oct   |
| hange at the time of     | Machine Age      | hrs           | Client Info |            | 12585       | 11818       | 11223  |
| Ve recommend an early    | Oil Age          | hrs           | Client Info |            | 600         | 600         | 600  |
| ndition.                 | Oil Changed      |               | Client Info |            | Changed     | Changed     | Change   |
| re normal.               | Sample Status    |               |             |            | SEVERE      | NORMAL      | NORM   |
| ie homai.                | WEAR METALS      | S             | method      | limit/base | current     | history1    | his  |
| here is a high           | Iron             | ppm           | ASTM D5185m | >50        | 9           | 6           | 17   |
| ent in the oil.          | Chromium         | ppm           | ASTM D5185m | >4         | 1           | <1          | 2  |
|                          | Nickel           | ppm           | ASTM D5185m | >2         | 0           | 0           | 0  |
| t there is suitable      | Titanium         | ppm           | ASTM D5185m |            | <1          | <1          | 2  |
| il. The oil is no longer | Silver           | ppm           | ASTM D5185m | >3         | 0           | 0           | <1   |
| ence of contaminants.    | Aluminum         | ppm           | ASTM D5185m | >9         | 4           | 1           | 4  |
|                          | Lead             | ppm           | ASTM D5185m | >30        | <1          | <1          | 3  |
|                          | Copper           | ppm           | ASTM D5185m | >35        | <1          | 2           | 4  |
|                          | Tin              | ppm           | ASTM D5185m | >4         | 0           | <1          | 1  |
|                          | Antimony         | ppm           | ASTM D5185m |            |             |             |  |
|                          | Vanadium         | ppm           | ASTM D5185m |            | 0           | 0           | <1   |
|                          | Cadmium          | ppm           | ASTM D5185m |            | 0           | 0           | 0  |
|                          | ADDITIVES        |               | method      | limit/base | current     | history1    | his  |
|                          | Boron            | ppm           | ASTM D5185m | 50         | 14          | 11          | 14   |
|                          | Barium           | ppm           | ASTM D5185m | 5          | 0           | 0           | 3  |
|                          | Molybdenum       | ppm           | ASTM D5185m | 50         | 56          | 49          | 51   |
|                          | Manganese        | ppm           | ASTM D5185m | 0          | 1           | <1          | 3  |
|                          | Magnesium        | ppm           | ASTM D5185m | 560        | 435         | 476         | 523  |
|                          | Calcium          | ppm           | ASTM D5185m | 1510       | 1559        | 1584        | 1603   |
|                          | Phosphorus       | ppm           | ASTM D5185m | 780        | 601         | 583         | 651  |
|                          | Zinc             | ppm           | ASTM D5185m | 870        | 855         | 860         | 934  |
|                          | Sulfur           | ppm           | ASTM D5185m | 2040       | 2215        | 2330        | 2484   |
|                          | CONTAMINAN       | TS            | method      | limit/base | current     | history1    | his  |
|                          | Silicon          | ppm           | ASTM D5185m | >+100      | 20          | 19          | 65   |
|                          | Sodium           | ppm           | ASTM D5185m |            | <u> </u>    | 17          | 30   |
|                          | Potassium        | ppm           | ASTM D5185m | >20        | <u> </u>    | 7           | 4  |
|                          | Glycol           | %             | *ASTM D2982 |            | 0.12        |             |  |
|                          | INFRA-RED        |               | method      | limit/base | current     | history1    | his  |
|                          | Soot %           | %             | *ASTM D7844 |            | 0.1         | 0.1         | 0.1  |
|                          | Nitration        | Abs/cm        | *ASTM D7624 | >20        | 12.3        | 10.8        | 11.5   |
|                          | Sulfation        | Abs/.1mm      | *ASTM D7415 | >30        | 22.4        | 21.5        | 24.0   |
|                          | FLUID DEGRAD     | OATION        | method      | limit/base | current     | history1    | his  |
|                          | Oxidation        | Abs/.1mm      | *ASTM D7414 | >25        | 18.3        | 18.5        | 20.3   |
|                          | Base Number (BN) | mg KOH/g      | ASTM D2896  | 10.2       | 6.3         | 5.0         | 0<br>hi:<br>14<br>3<br>51<br>3<br>523<br>160<br>651<br>934<br>248<br>hi:<br>65<br>30<br>4<br>248<br>0.1<br>11.9<br>24.0<br>hi: |
|                          |                  |               |             |            |             |             |  |

### 2677C Component

Machine Id

**Natural Gas Engine** Fluic

PETRO CANADA DURON GEO LD 15W40 (40 QTS)

### DIAGNOSIS

#### Recommendation

We advise that you check for coolant leak. Oil and filter cha sampling has been noted. W resample to monitor this cond

#### Wear

All component wear rates are

#### Contamination

Test for glycol is positive. The concentration of glycol prese

#### Fluid Condition

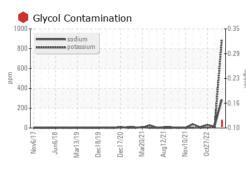
The BN result indicates that alkalinity remaining in the oil. serviceable due to the preserviceable due to

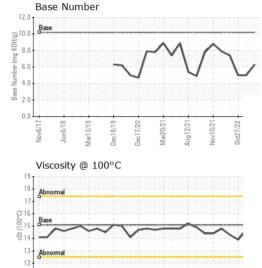


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un6/18 Mar13/19 Dec18/19 lec17/20 1 C/ U/2 I

# **OIL ANALYSIS REPORT**





| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual   | >0.1       | NEG     | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
| FLUID PROPE      | RTIES  | method    | limit/base | current | history1 | history2 |
| Visc @ 100°C     | cSt    | ASTM D445 | 15.1       | 15.0    | 14.7     | 13.9     |
| GRAPHS           |        |           |            |         |          |          |

Ferrous Alloys

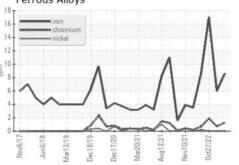
Non-ferrous Metals

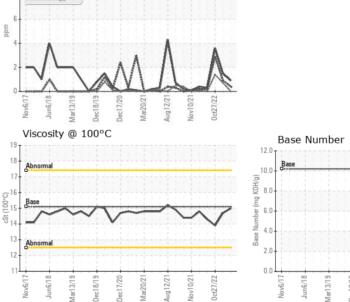
ead

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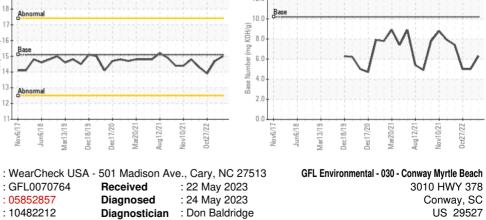
Aug12/21. Vov10/21.





: 22 May 2023

: 24 May 2023



: 10482212 Unique Number Diagnostician : Don Baldridge Test Package : FLEET (Additional Tests: Glycol) Certificate L2367 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.

: 05852857

un6/18 Mar13/19 Dec18/19

: GFL0070764

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

Der17/20

Received

Diagnosed

Laboratory

Sample No.

Lab Number

Submitted By: CHET STROSCHINE

Contact: CHET STROSCHINE

cstroschine@gflenv.com

Т:

F: