



OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
934067

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a components first oil change.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-----------------|--------------------|----------|----------|
| Sample Number | Client Info | GFL0100526 | --- | --- |
| Sample Date | Client Info | 04 Nov 2023 | --- | --- |
| Machine Age | hrs Client Info | 605 | --- | --- |
| Oil Age | hrs Client Info | 605 | --- | --- |
| Oil Changed | Client Info | Changed | --- | --- |
| Sample Status | | NORMAL | --- | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|--------------|-----------------|--------------|----------|----------|
| Iron ppm | ASTM D5185m >50 | 41 | --- | --- |
| Chromium ppm | ASTM D5185m >4 | <1 | --- | --- |
| Nickel ppm | ASTM D5185m >2 | <1 | --- | --- |
| Titanium ppm | ASTM D5185m | 0 | --- | --- |
| Silver ppm | ASTM D5185m >3 | 0 | --- | --- |
| Aluminum ppm | ASTM D5185m >9 | 31 | --- | --- |
| Lead ppm | ASTM D5185m >30 | <1 | --- | --- |
| Copper ppm | ASTM D5185m >35 | 13 | --- | --- |
| Tin ppm | ASTM D5185m >4 | 1 | --- | --- |
| Vanadium ppm | ASTM D5185m | 0 | --- | --- |
| Cadmium ppm | ASTM D5185m | 0 | --- | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|----------------|------------------|-------------|----------|----------|
| Boron ppm | ASTM D5185m 50 | 8 | --- | --- |
| Barium ppm | ASTM D5185m 5 | 0 | --- | --- |
| Molybdenum ppm | ASTM D5185m 50 | 50 | --- | --- |
| Manganese ppm | ASTM D5185m 0 | 7 | --- | --- |
| Magnesium ppm | ASTM D5185m 560 | 786 | --- | --- |
| Calcium ppm | ASTM D5185m 1510 | 1267 | --- | --- |
| Phosphorus ppm | ASTM D5185m 780 | 657 | --- | --- |
| Zinc ppm | ASTM D5185m 870 | 932 | --- | --- |
| Sulfur ppm | ASTM D5185m 2040 | 2247 | --- | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|---------------|-------------------|------------|----------|----------|
| Silicon ppm | ASTM D5185m >+100 | 34 | --- | --- |
| Sodium ppm | ASTM D5185m | 4 | --- | --- |
| Potassium ppm | ASTM D5185m >20 | 120 | --- | --- |

INFRA-RED

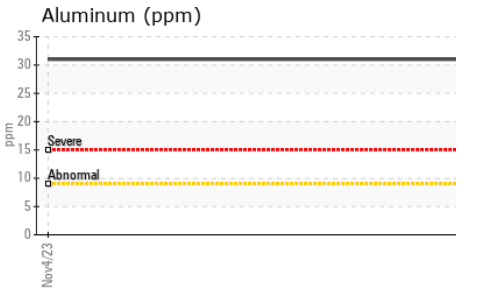
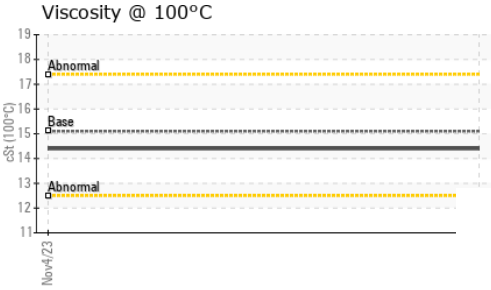
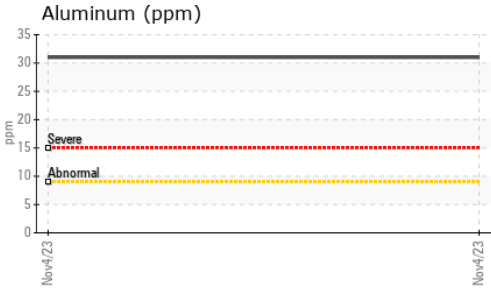
| method | limit/base | current | history1 | history2 |
|--------------------|-----------------|-------------|----------|----------|
| Soot % | *ASTM D7844 | 0 | --- | --- |
| Nitration Abs/cm | *ASTM D7624 >20 | 11.4 | --- | --- |
| Sulfation Abs/.1mm | *ASTM D7415 >30 | 22.6 | --- | --- |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 |
|---------------------------|-----------------|-------------|----------|----------|
| Oxidation Abs/.1mm | *ASTM D7414 >25 | 20.8 | --- | --- |
| Base Number (BN) mg KOH/g | ASTM D2896 10.2 | 4.7 | --- | --- |



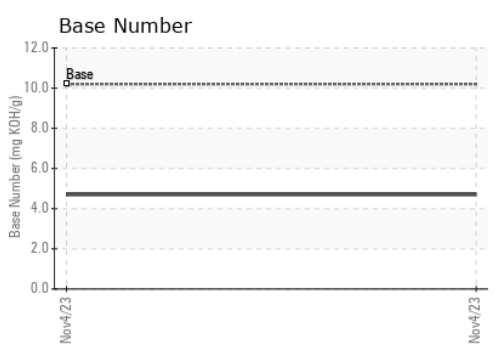
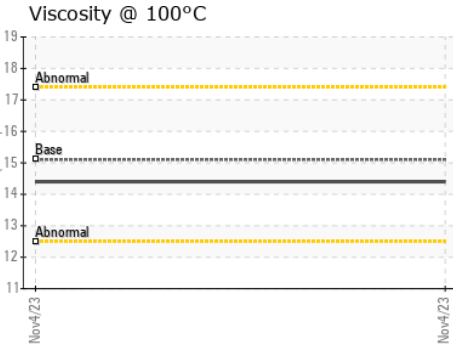
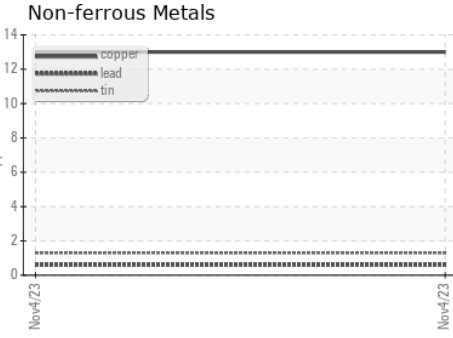
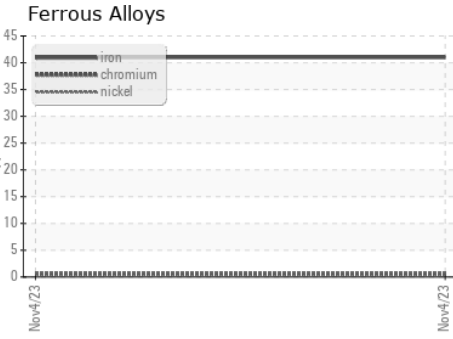
OIL ANALYSIS REPORT



| VISUAL | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | --- | --- |
| Free Water | scalar | *Visual | | NEG | --- | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|-------------|----------|-----|
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.4 | --- | --- |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0100526 **Received** : 09 Nov 2023
Lab Number : 06002793 **Diagnosed** : 10 Nov 2023
Unique Number : 10736555 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 865 - East Mount Hauling
 7213 East Mount Houston Road
 Houston, TX
 US 77050
 Contact: TECHNICIAN ACCOUNT
 wcgfldemo@gmail.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)