



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**934058**

Component  
**Natural Gas Engine**

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



## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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. No other contaminants were detected in the oil.

### Fluid Condition

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

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0100543</b>	---	---
Sample Date	Client Info	<b>19 Dec 2023</b>	---	---
Machine Age	hrs	Client Info	<b>1033</b>	---
Oil Age	hrs	Client Info	<b>0</b>	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>NORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	---

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	<b>18</b>	---
Chromium	ppm	ASTM D5185m	>4	<b>1</b>	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---
Aluminum	ppm	ASTM D5185m	>9	<b>27</b>	---
Lead	ppm	ASTM D5185m	>30	<b>0</b>	---
Copper	ppm	ASTM D5185m	>35	<b>3</b>	---
Tin	ppm	ASTM D5185m	>4	<b>2</b>	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	50	<b>10</b>	---
Barium	ppm	ASTM D5185m	5	<b>0</b>	---
Molybdenum	ppm	ASTM D5185m	50	<b>53</b>	---
Manganese	ppm	ASTM D5185m	0	<b>2</b>	---
Magnesium	ppm	ASTM D5185m	560	<b>570</b>	---
Calcium	ppm	ASTM D5185m	1510	<b>1431</b>	---
Phosphorus	ppm	ASTM D5185m	780	<b>730</b>	---
Zinc	ppm	ASTM D5185m	870	<b>980</b>	---
Sulfur	ppm	ASTM D5185m	2040	<b>2393</b>	---

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	<b>7</b>	---
Sodium	ppm	ASTM D5185m		<b>4</b>	---
Potassium	ppm	ASTM D5185m	>20	<b>132</b>	---
Glycol	%	*ASTM D2982		<b>0.0</b>	---

## INFRA-RED

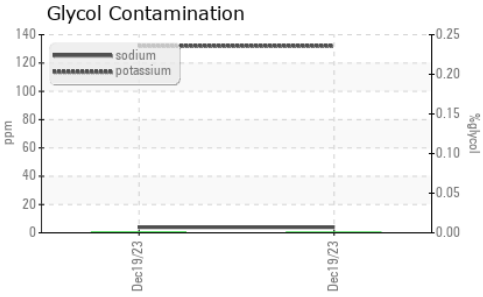
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0</b>	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.7</b>	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	---

## FLUID DEGRADATION

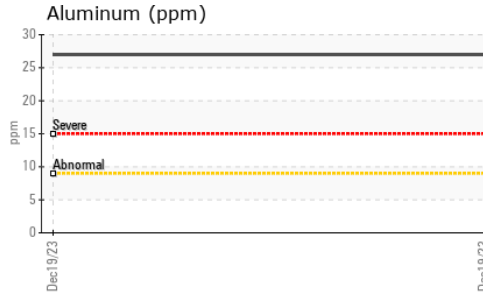
method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>4.9</b>	---



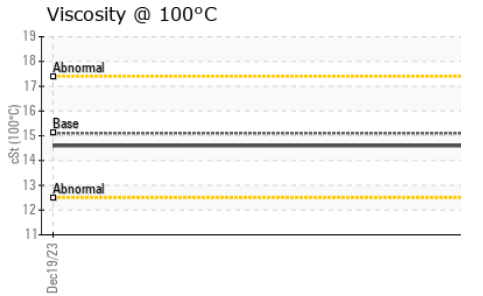
# OIL ANALYSIS REPORT



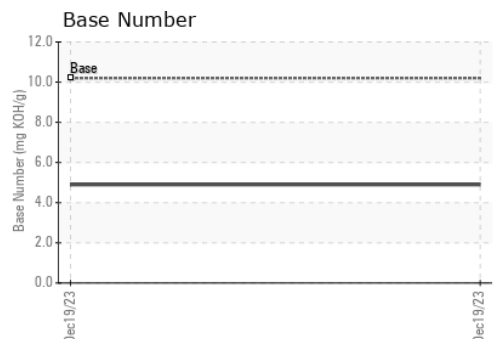
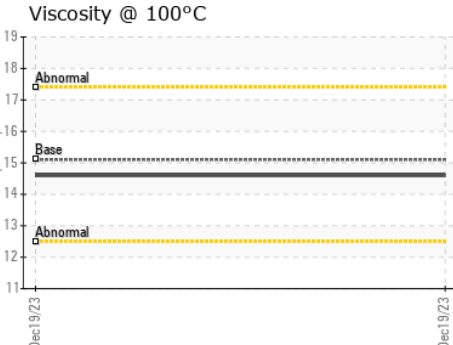
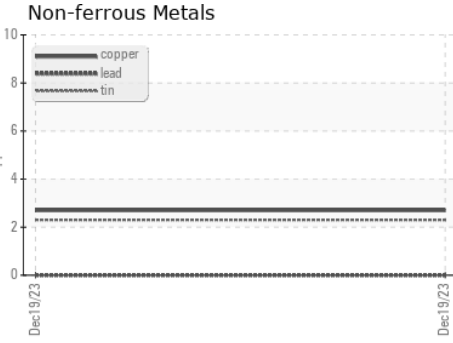
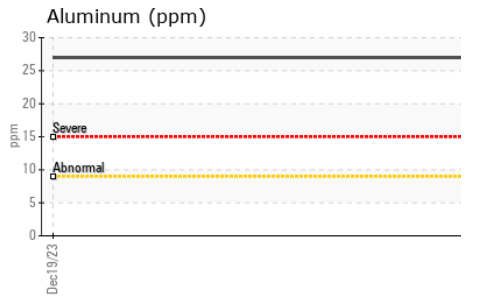
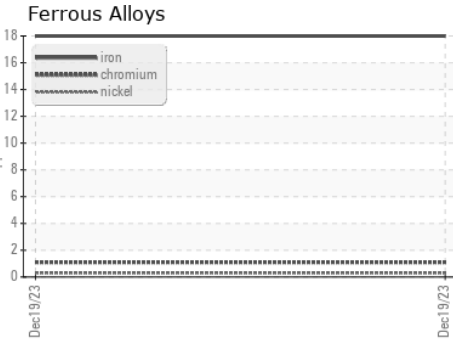
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	14.6	---



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0100543 **Received** : 28 Dec 2023  
**Lab Number** : 06046858 **Diagnosed** : 29 Dec 2023  
**Unique Number** : 10807466 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: Glycol )

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

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