



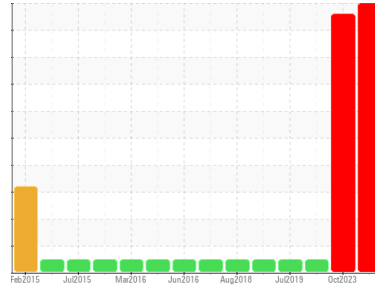
# OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL



Machine Id  
**9952**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (24 LTR)**



## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil. There is a moderate concentration of water present in the oil. Free water present.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0097793</b>	GFL0097751	PC0021815
Sample Date	Client Info		<b>28 Nov 2023</b>	02 Oct 2023	19 Jan 2020
Machine Age	hrs	Client Info	<b>18601</b>	29262	0
Oil Age	hrs	Client Info	<b>1200</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	N/A
Sample Status			<b>SEVERE</b>	SEVERE	NORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	<b>41</b>	▲ 169	8
Chromium	ppm	ASTM D5185(m)	>4	<b>2</b>	■ 13	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>1</b>	▲ 6	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>5</b>	▲ 22	2
Lead	ppm	ASTM D5185(m)	>30	<b>3</b>	15	<1
Copper	ppm	ASTM D5185(m)	>35	<b>15</b>	44	2
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	50	<b>26</b>	5	2
Barium	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	3	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>57</b>	109	59
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	6	<1
Magnesium	ppm	ASTM D5185(m)	560	<b>583</b>	634	920
Calcium	ppm	ASTM D5185(m)	1510	<b>1615</b>	1935	1043
Phosphorus	ppm	ASTM D5185(m)	780	<b>792</b>	839	925
Zinc	ppm	ASTM D5185(m)	870	<b>949</b>	1073	1179
Sulfur	ppm	ASTM D5185(m)	2040	<b>2186</b>	2326	2419
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	<b>7</b>	17	4
Sodium	ppm	ASTM D5185(m)		▲ <b>121</b>	30	3
Potassium	ppm	ASTM D5185(m)	>20	▲ <b>19</b>	46	2
Glycol	%	ASTM D7922*		■ <b>0.566</b>	0.0	---

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.7</b>	13.7	11.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>16.8</b>	30.7	25.1

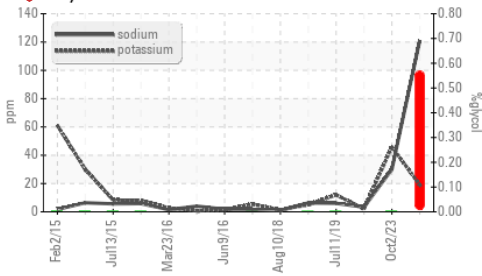
## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.2</b>	22.7	18.1

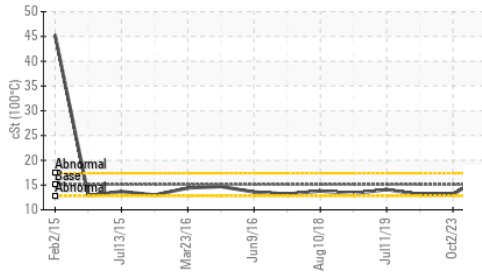


# OIL ANALYSIS REPORT

## Glycol Contamination



## Viscosity @ 100°C



## VISUAL

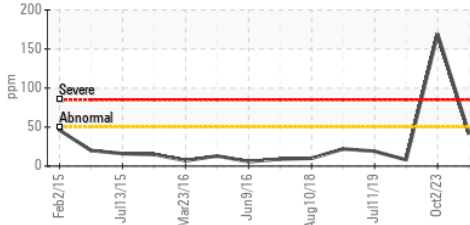
	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ LIGHT	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	▲ .2%	NEG
Free Water	scalar	Visual*		▲ 5%	NEG

## FLUID PROPERTIES

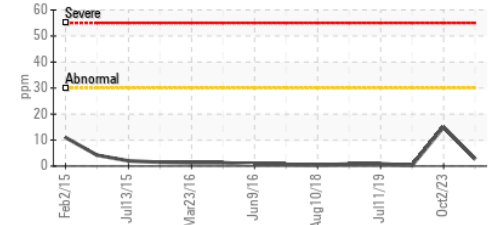
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	16.9	13.2

## GRAPHS

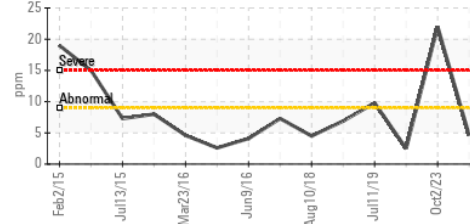
### Iron (ppm)



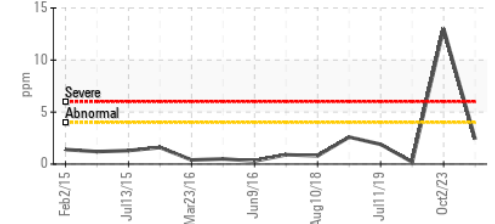
### Lead (ppm)



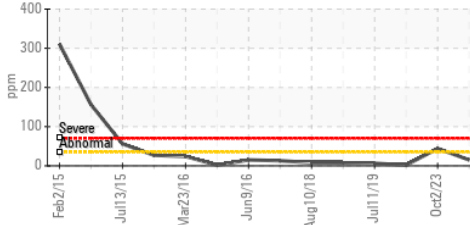
### Aluminum (ppm)



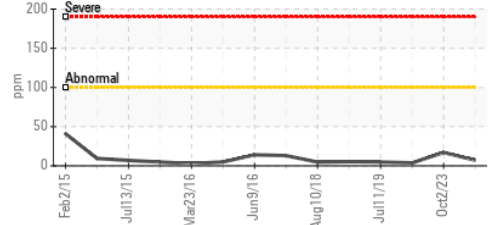
### Chromium (ppm)



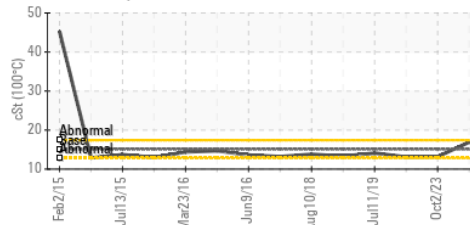
### Copper (ppm)



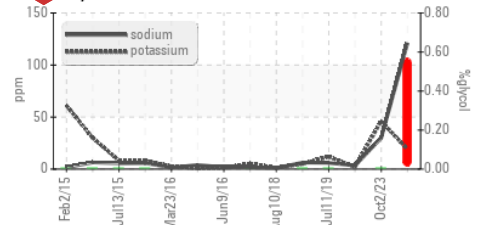
### Silicon (ppm)



## Viscosity @ 100°C



## Glycol Contamination



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 209 - Hamilton**  
**Sample No.** : GFL0097793 **Received** : 01 Dec 2023  
**Lab Number** : 02600104 **Diagnosed** : 04 Dec 2023  
**Unique Number** : 5685184 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, Visual )

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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