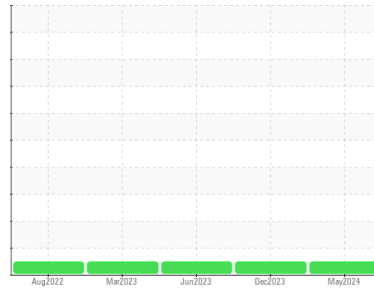




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**831041**

Component

**Natural Gas Engine**

Fluid

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The oil viscosity is lower than typical, possibly indicating the addition of lighter grade 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>GFL0118961</b>	GFL0101691	GFL0085951
Sample Date	Client Info	<b>04 May 2024</b>	28 Dec 2023	19 Jun 2023
Machine Age	hrs	<b>0</b>	4593	1440
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	Changed	N/A
Sample Status		<b>NORMAL</b>	NORMAL	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>22</b>	14	18
Chromium	ppm ASTM D5185(m) >4	<b>&lt;1</b>	1	2
Nickel	ppm ASTM D5185(m) >2	<b>&lt;1</b>	<1	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	<1
Silver	ppm ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >9	<b>2</b>	3	3
Lead	ppm ASTM D5185(m) >30	<b>&lt;1</b>	3	1
Copper	ppm ASTM D5185(m) >35	<b>1</b>	2	1
Tin	ppm ASTM D5185(m) >4	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185(m)	<b>0</b>	0	0
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>5</b>	5	5
Barium	ppm ASTM D5185(m) 5	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 50	<b>63</b>	56	57
Manganese	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	1
Magnesium	ppm ASTM D5185(m) 560	<b>870</b>	591	636
Calcium	ppm ASTM D5185(m) 1510	<b>1365</b>	1691	1726
Phosphorus	ppm ASTM D5185(m) 780	<b>873</b>	727	811
Zinc	ppm ASTM D5185(m) 870	<b>1151</b>	943	971
Sulfur	ppm ASTM D5185(m) 2040	<b>2335</b>	2110	2075
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>3</b>	4	5
Sodium	ppm ASTM D5185(m)	<b>7</b>	11	13
Potassium	ppm ASTM D5185(m) >20	<b>2</b>	4	4

## INFRA-RED

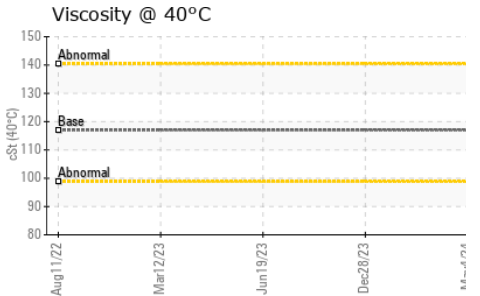
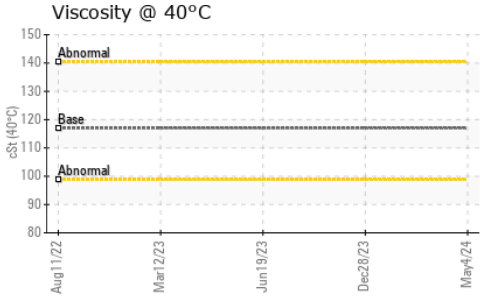
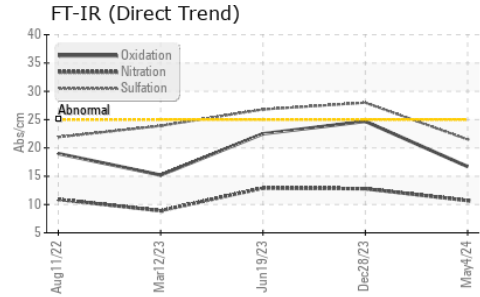
method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	<b>0</b>	0	0
Nitration	Abs/cm ASTM D7624*	<b>10.7</b>	12.8	12.9
Sulfation	Abs/.1mm ASTM D7415*	<b>21.5</b>	28.0	26.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414*	<b>16.7</b>	24.7	22.5



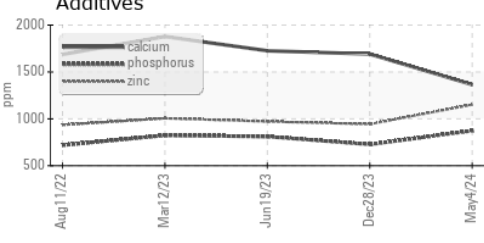
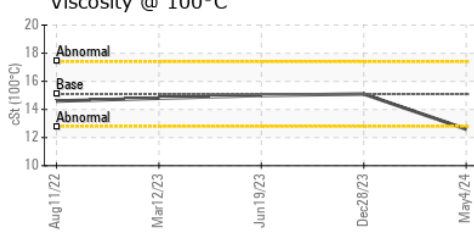
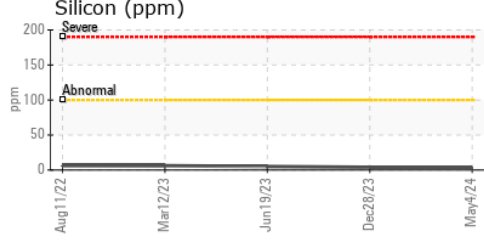
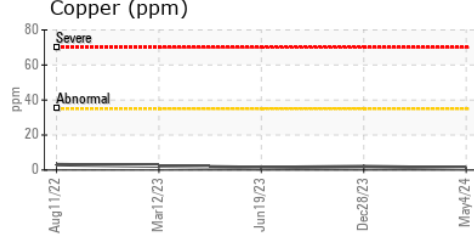
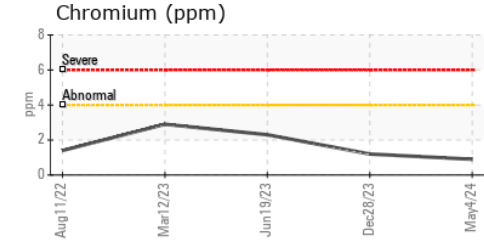
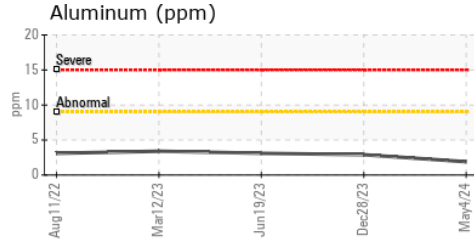
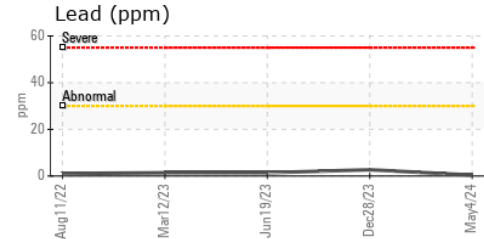
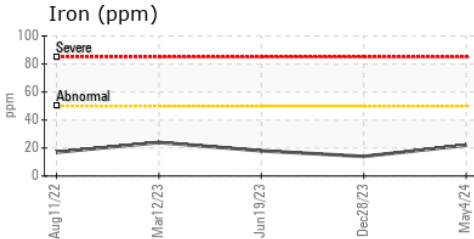
# OIL ANALYSIS REPORT



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	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	117.0	88.7	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	12.6	15.1
Viscosity Index (VI)	Scale	ASTM D2270*	134	138	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0118961  
**Lab Number** : 02634037  
**Unique Number** : 5775190  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )  
**Received** : 08 May 2024  
**Tested** : 08 May 2024  
**Diagnosed** : 08 May 2024 - Kevin Marson

**GFL Environmental - 554 - Edmonton SW**  
 8409 -15th Street NW  
 Edmonton, AB  
 CA T6P 0B8  
 Contact: Tim Greig  
 tgreig@gflenv.com  
 T: (780)231-0521  
 F:

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.