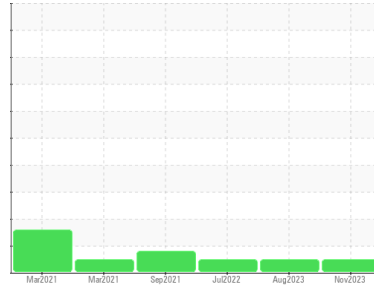




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**831003**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (--- LTR)**

## DIAGNOSIS

### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. 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

Additive levels indicate the addition of a different brand, or type of 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>GFL0097624</b>	GFL0090602	GFL0053100
Sample Date	Client Info		<b>20 Nov 2023</b>	25 Aug 2023	18 Jul 2022
Machine Age	hrs	Client Info	<b>0</b>	6420	4373
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Changed	Changed
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>21</b>	31	20
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	2	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>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>2</b>	13	25
Lead	ppm	ASTM D5185(m)	>30	<b>1</b>	3	2
Copper	ppm	ASTM D5185(m)	>35	<b>2</b>	2	1
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</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)	0	<b>18</b>	11	8
Barium	ppm	ASTM D5185(m)	0	<b>12</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>50</b>	63	62
Manganese	ppm	ASTM D5185(m)	0	<b>3</b>	1	1
Magnesium	ppm	ASTM D5185(m)	1010	<b>544</b>	687	795
Calcium	ppm	ASTM D5185(m)	1070	<b>1549</b>	1842	1695
Phosphorus	ppm	ASTM D5185(m)	1150	<b>726</b>	930	946
Zinc	ppm	ASTM D5185(m)	1270	<b>869</b>	1072	1182
Sulfur	ppm	ASTM D5185(m)	2060	<b>1974</b>	2140	2418
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>18</b>	5	5
Sodium	ppm	ASTM D5185(m)		<b>3</b>	10	8
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	22	39

## INFRA-RED

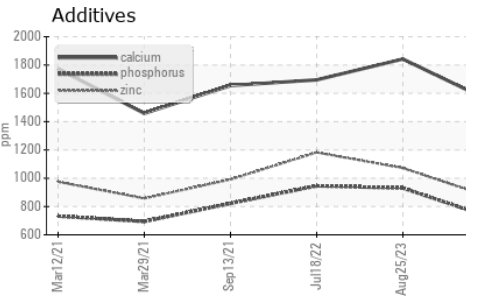
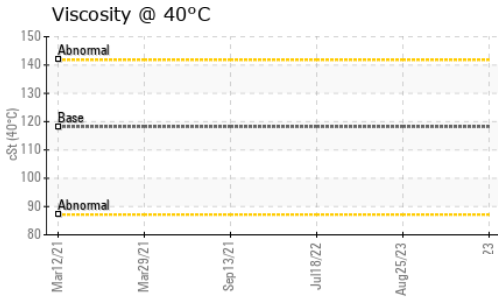
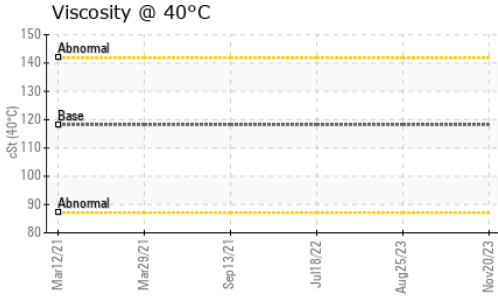
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.7</b>	13.3	10.7
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>19.4</b>	29.9	23.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>17.1</b>	24.2	20.1



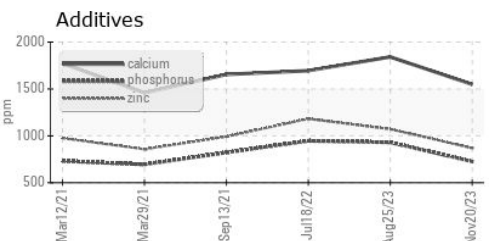
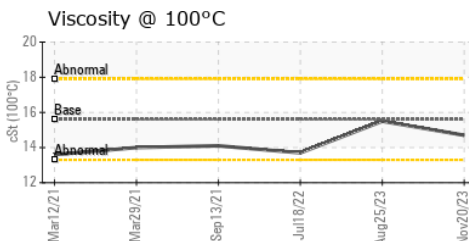
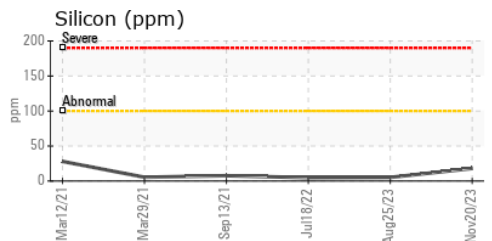
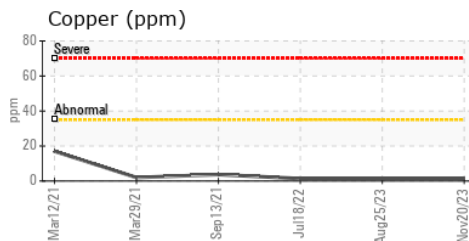
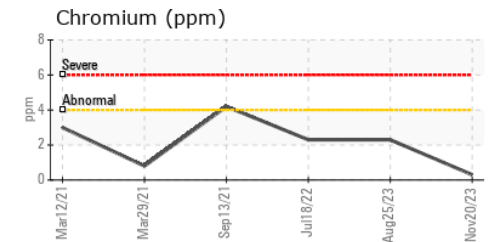
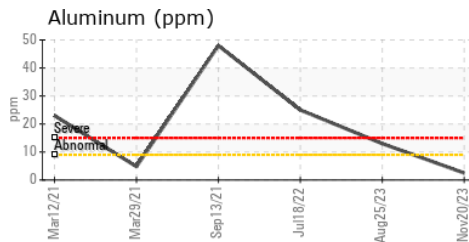
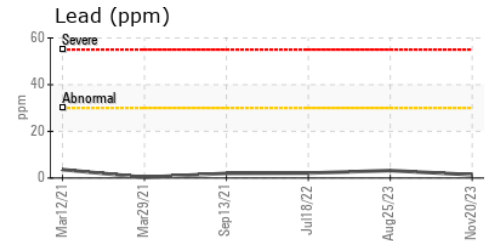
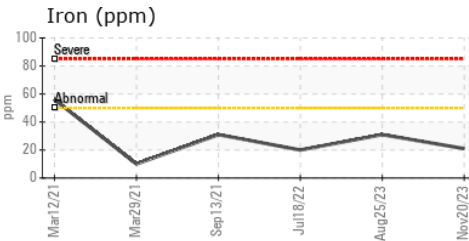
# OIL ANALYSIS REPORT



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)	118.2	114	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	14.7	15.5
Viscosity Index (VI)	Scale	ASTM D2270*	139	132	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW  
**Sample No.** : GFL0097624 **Received** : 21 Nov 2023  
**Lab Number** : 02597797 **Diagnosed** : 22 Nov 2023  
**Unique Number** : 5682877 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, 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.

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