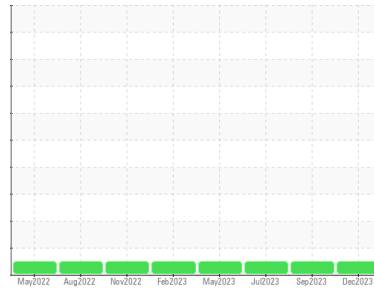




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**[1197248]**  
 Machine Id  
**810054**

Component  
**Diesel Engine**  
 Fluid

**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### 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. There is no indication of any contamination in the oil.

### Fluid Condition

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>GFL0093937</b>	GFL0093931	GFL0062927
Sample Date	Client Info		<b>19 Dec 2023</b>	27 Sep 2023	25 Jul 2023
Machine Age	hrs	Client Info	<b>4993</b>	4373	4005
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	<b>31</b>	25	37
Chromium	ppm	ASTM D5185(m) >20	<b>2</b>	1	2
Nickel	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m) >3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m) >20	<b>8</b>	5	6
Lead	ppm	ASTM D5185(m) >40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m) >330	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	0	<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>5</b>	6	10
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>62</b>	61	63
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>959</b>	954	948
Calcium	ppm	ASTM D5185(m) 1070	<b>1171</b>	1087	1118
Phosphorus	ppm	ASTM D5185(m) 1150	<b>991</b>	974	983
Zinc	ppm	ASTM D5185(m) 1270	<b>1201</b>	1196	1170
Sulfur	ppm	ASTM D5185(m) 2060	<b>2582</b>	2412	2422
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

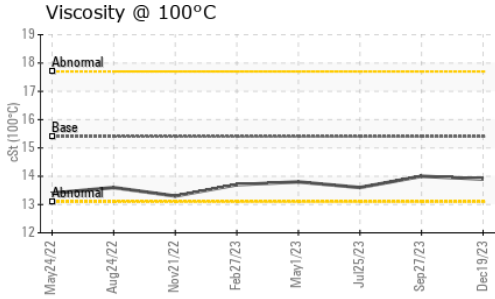
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>6</b>	4	6
Sodium	ppm	ASTM D5185(m)	<b>8</b>	8	8
Potassium	ppm	ASTM D5185(m) >20	<b>18</b>	9	16

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>0.6</b>	0.4	0.5
Nitration	Abs/cm	ASTM D7624* >20	<b>10.8</b>	9.9	10.8
Sulfation	Abs.1mm	ASTM D7415* >30	<b>22.5</b>	20.6	23.1



# OIL ANALYSIS REPORT

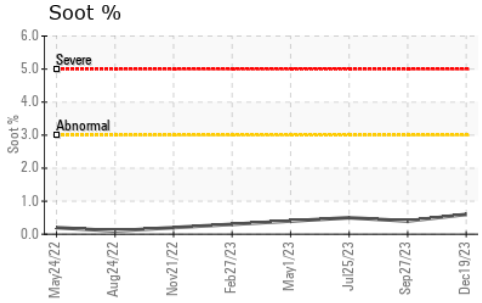
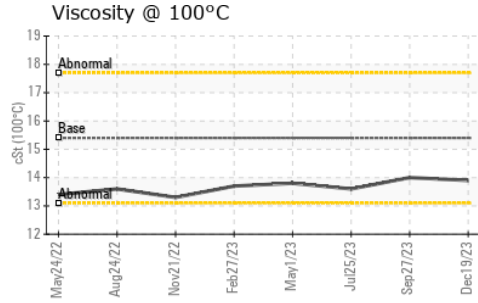
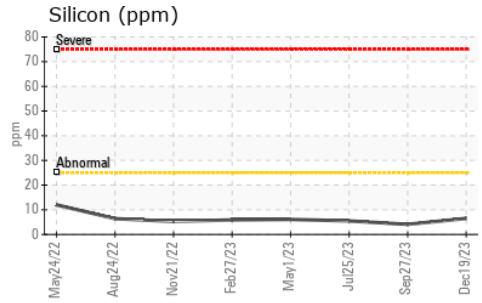
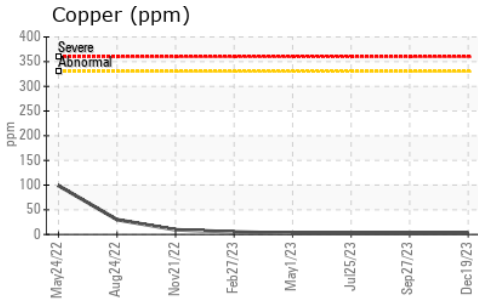
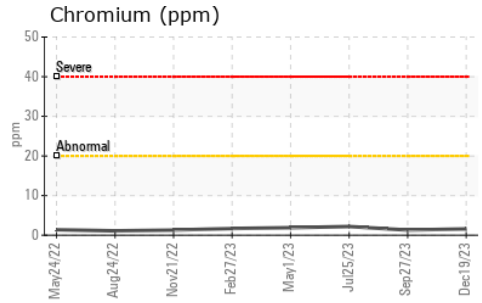
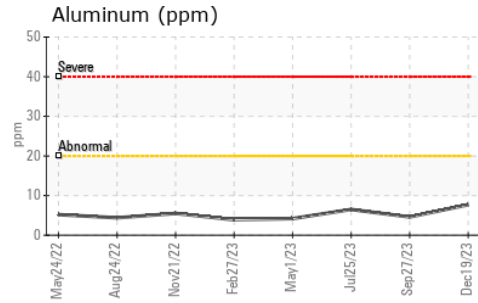
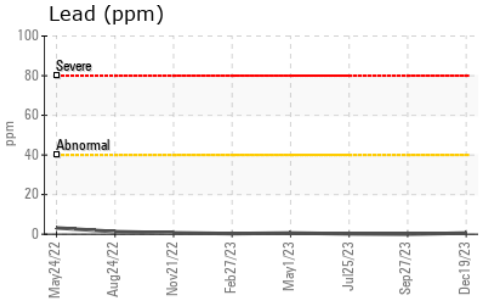
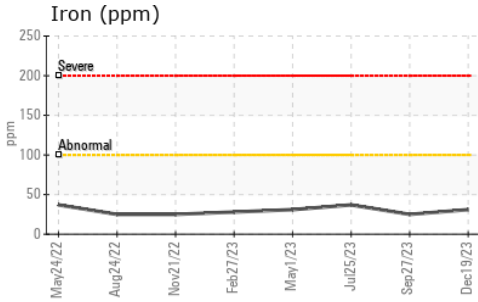


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>19.2</b>	17.0	19.0

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.9</b>	14.0	13.6

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 777 - Belleville-Municipal waste  
**Sample No.** : GFL0093937 **Received** : 22 Dec 2023  
**Lab Number** : **02604825** **Diagnosed** : 22 Dec 2023  
**Unique Number** : 5697910 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

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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