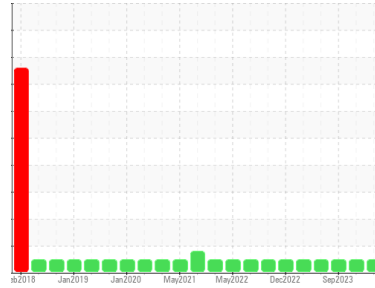




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**701047**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (20 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

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>GFL0110735</b>	GFL0097452	GFL0085686	
Sample Date	Client Info	<b>14 Feb 2024</b>	30 Nov 2023	07 Sep 2023	
Machine Age	hrs	Client Info	<b>570</b>	570	0
Oil Age	hrs	Client Info	<b>570</b>	570	0
Oil Changed	Client Info	<b>Changed</b>	Changed	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>8</b>	14	9
Chromium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185(m) >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m) >3	<b>&lt;1</b>	<1	<1
Aluminum	ppm ASTM D5185(m) >20	<b>2</b>	2	3
Lead	ppm ASTM D5185(m) >40	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185(m) >330	<b>1</b>	2	1
Tin	ppm ASTM D5185(m) >15	<b>0</b>	0	0
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>2</b>	2	1
Barium	ppm ASTM D5185(m) 0	<b>0</b>	<1	0
Molybdenum	ppm ASTM D5185(m) 60	<b>55</b>	55	56
Manganese	ppm ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>892</b>	886	943
Calcium	ppm ASTM D5185(m) 1070	<b>988</b>	963	1003
Phosphorus	ppm ASTM D5185(m) 1150	<b>946</b>	907	1017
Zinc	ppm ASTM D5185(m) 1270	<b>1111</b>	1123	1163
Sulfur	ppm ASTM D5185(m) 2060	<b>2448</b>	2247	2450
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

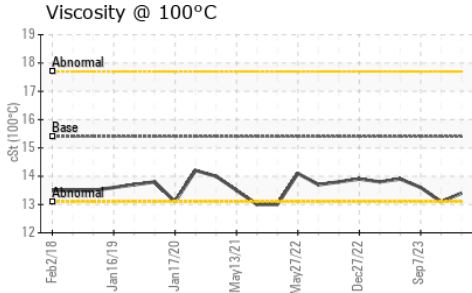
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<b>2</b>	3	3
Sodium	ppm ASTM D5185(m)	<b>2</b>	2	2
Potassium	ppm ASTM D5185(m) >20	<b>1</b>	1	<1

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0.2</b>	0.3	1.7
Nitration	Abs/cm ASTM D7624* >20	<b>9.2</b>	9.9	16.5
Sulfation	Abs/.1mm ASTM D7415* >30	<b>19.8</b>	21.5	23.2



# OIL ANALYSIS REPORT



### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>16.7</b>	19.3	35.8

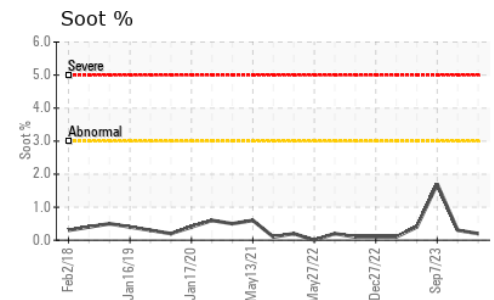
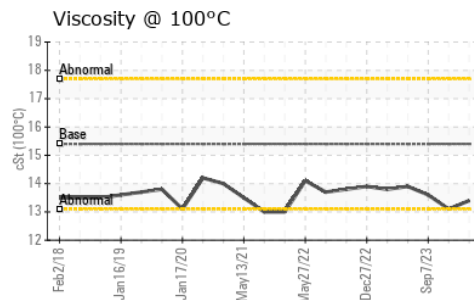
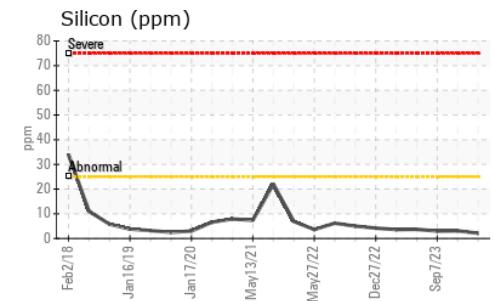
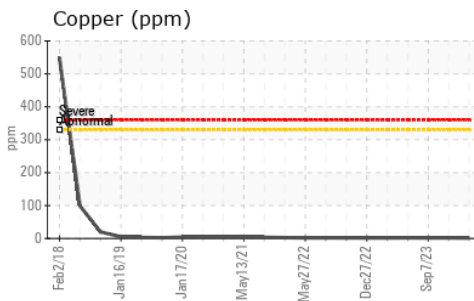
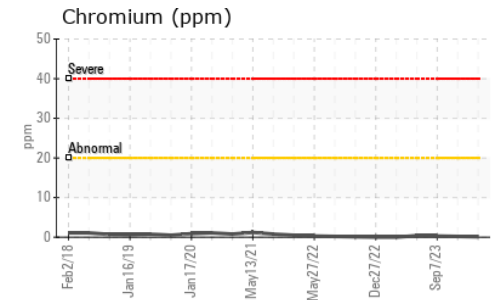
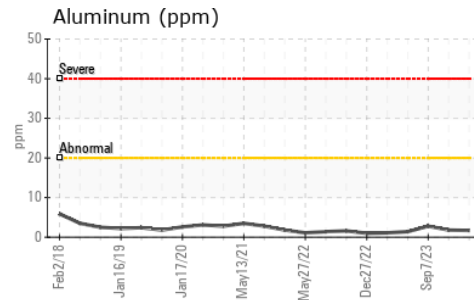
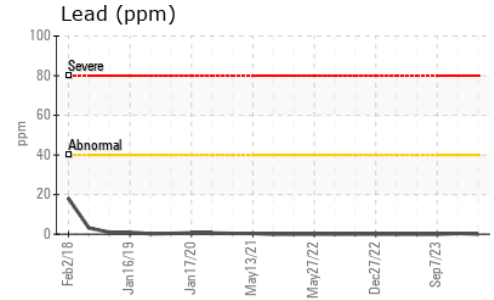
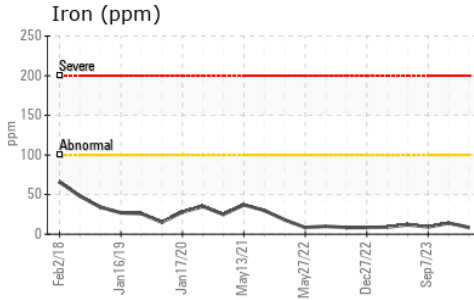
### VISUAL

	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>13.4</b>	13.1	13.6

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0110735 **Received** : 16 Feb 2024  
**Lab Number** : **02616138** **Tested** : 16 Feb 2024  
**Unique Number** : 5733248 **Diagnosed** : 16 Feb 2024 - Wes Davis  
**Test Package** : MOB 1

**GFL Environmental - 221 - Windsor**  
 905 Tecumseh Road W  
 Windsor, ON  
 CA N8W 4J5  
 Contact: Rhys Marotte  
 rmarotte@gflenv.com

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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F: