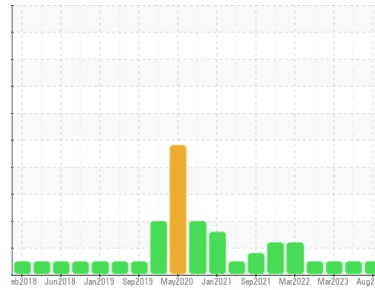




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**8427**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- 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>GFL0085683</b>	GFL0077310	GFL0070439
Sample Date	Client Info	<b>21 Aug 2023</b>	25 May 2023	22 Mar 2023
Machine Age	hrs	<b>493</b>	493	493
Oil Age	hrs	<b>493</b>	493	493
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	<b>17</b>	15	23
Chromium	ppm ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185(m) >2	<b>0</b>	0	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >30	<b>1</b>	2	2
Lead	ppm ASTM D5185(m) >30	<b>0</b>	0	0
Copper	ppm ASTM D5185(m) >150	<b>1</b>	<1	1
Tin	ppm ASTM D5185(m) >5	<b>0</b>	0	<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) 0	<b>3</b>	6	32
Barium	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 60	<b>56</b>	53	23
Manganese	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>930</b>	850	344
Calcium	ppm ASTM D5185(m) 1070	<b>1052</b>	1236	1961
Phosphorus	ppm ASTM D5185(m) 1150	<b>1040</b>	1067	1040
Zinc	ppm ASTM D5185(m) 1270	<b>1175</b>	1197	1179
Sulfur	ppm ASTM D5185(m) 2060	<b>2492</b>	2614	2823
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	<b>3</b>	2	4
Sodium	ppm ASTM D5185(m)	<b>2</b>	2	5
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	4

## INFRA-RED

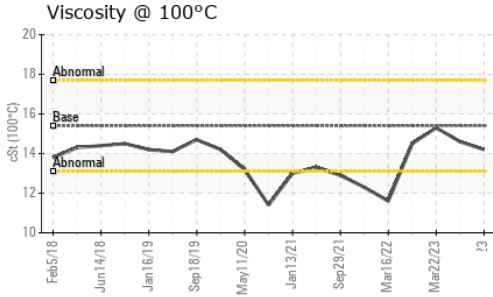
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0.7</b>	0.8	0.3
Nitration	Abs/cm ASTM D7624* >20	<b>11.1</b>	10.5	6.1
Sulfation	Abs/.1mm ASTM D7415* >30	<b>23.1</b>	21.8	19.4

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	<b>18.9</b>	18.2	10.2



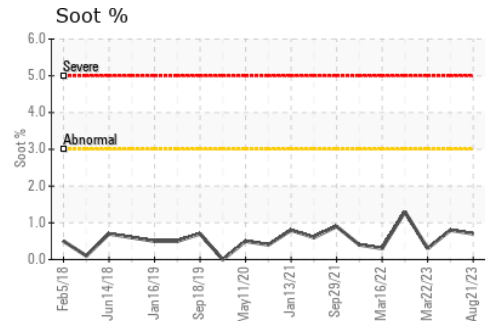
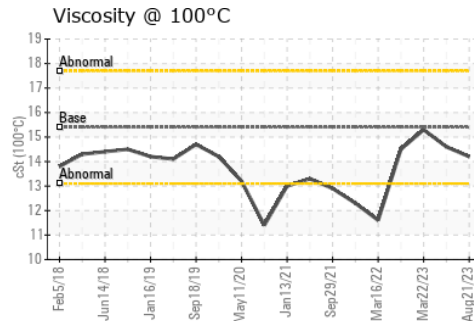
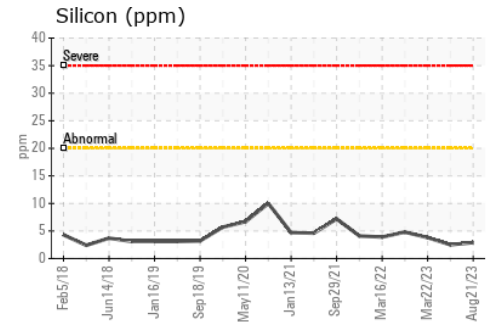
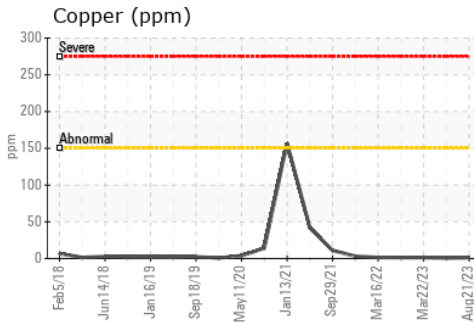
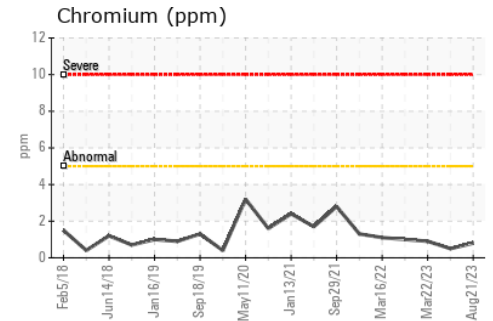
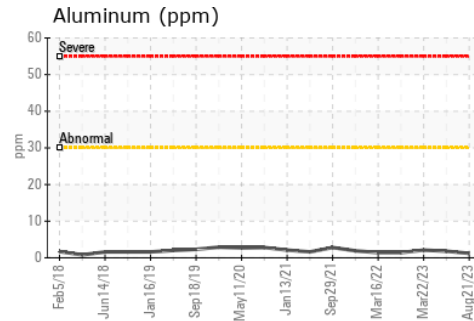
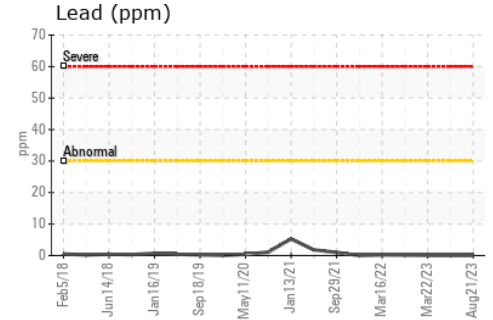
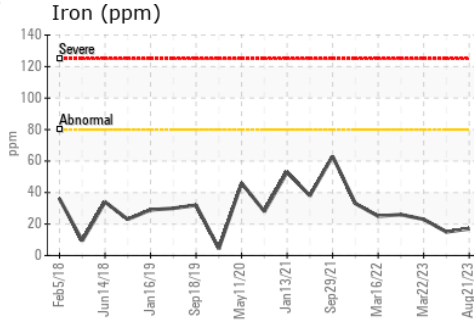
# OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.2	14.6

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 221 - Windsor**  
**Sample No.** : GFL0085683 **Received** : 24 Aug 2023  
**Lab Number** : 02577864 **Diagnosed** : 24 Aug 2023  
**Unique Number** : 5630924 **Diagnostician** : Kevin Marson  
**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.

Contact: Rhys Marotte  
 rmarotte@gflenv.com

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