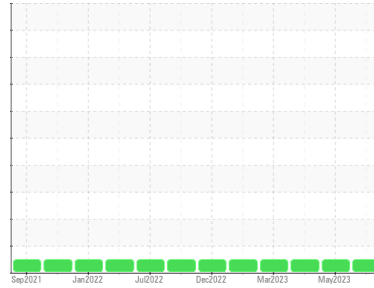




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**411019**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 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 condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0063665</b>	GFL0073049	GFL0073206
Sample Date	Client Info	<b>10 Jun 2023</b>	16 May 2023	05 Apr 2023
Machine Age	hrs	<b>0</b>	8427	7978
Oil Age	hrs	<b>600</b>	600	600
Oil Changed	Client Info	<b>Changed</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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	<b>11</b>	11	7
Chromium	ppm ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185(m) >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185(m) >3	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185(m) >30	<b>2</b>	2	2
Lead	ppm ASTM D5185(m) >30	<b>0</b>	0	<1
Copper	ppm ASTM D5185(m) >150	<b>1</b>	1	<1
Tin	ppm ASTM D5185(m) >5	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m)	<b>0</b>	<1	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>4</b>	2	3
Barium	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 60	<b>59</b>	61	58
Manganese	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>951</b>	988	952
Calcium	ppm ASTM D5185(m) 1070	<b>1065</b>	1135	1091
Phosphorus	ppm ASTM D5185(m) 1150	<b>1038</b>	1092	1081
Zinc	ppm ASTM D5185(m) 1270	<b>1166</b>	1228	1177
Sulfur	ppm ASTM D5185(m) 2060	<b>2465</b>	2642	2635
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>4</b>	3	2
Sodium	ppm ASTM D5185(m)	<b>6</b>	5	2
Potassium	ppm ASTM D5185(m) >20	<b>2</b>	2	<1

## INFRA-RED

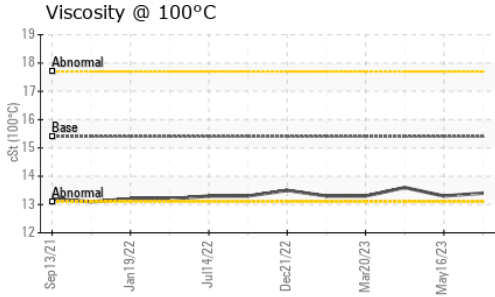
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0.4</b>	0.3	0.2
Nitration	Abs/cm ASTM D7624* >20	<b>8.8</b>	8.3	6.6
Sulfation	Abs/.1mm ASTM D7415* >30	<b>20.6</b>	20.2	19.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	<b>17.4</b>	17.0	15.0



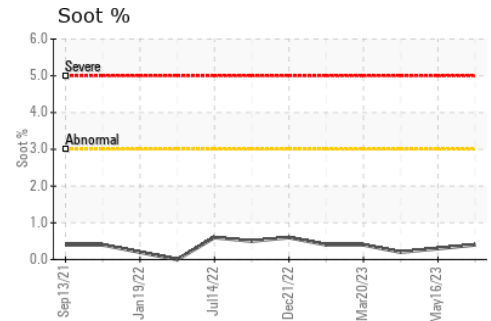
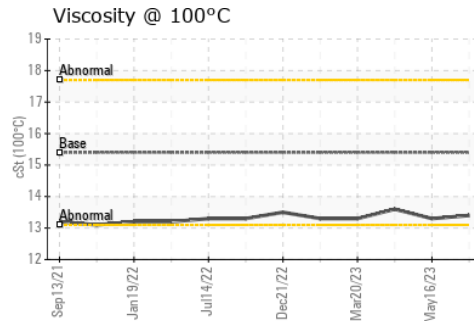
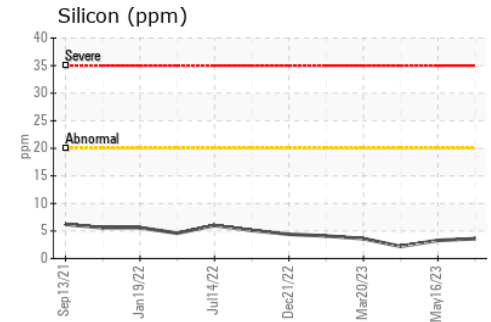
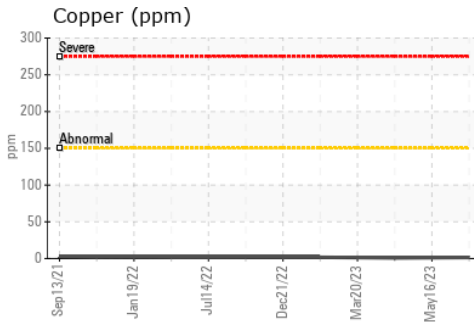
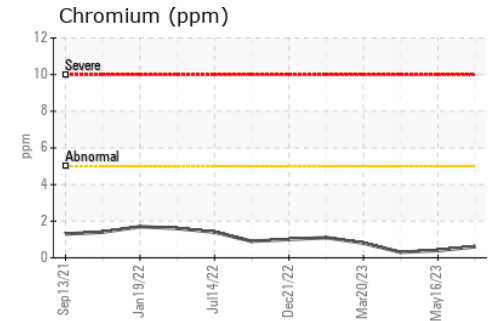
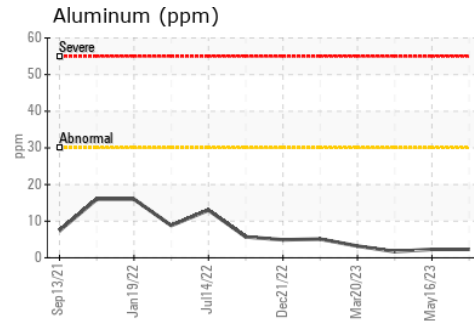
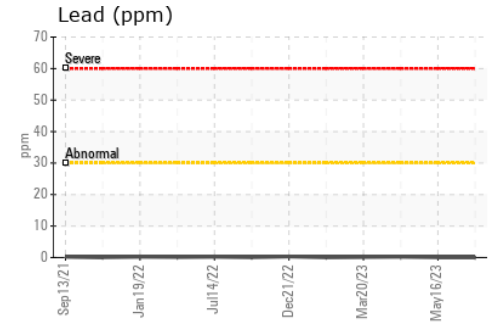
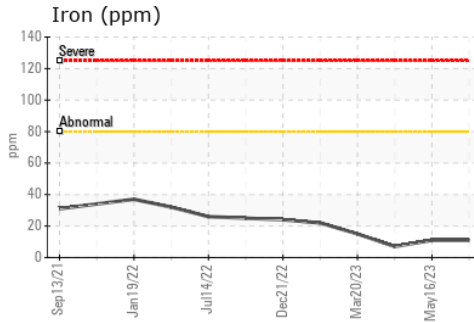
# OIL ANALYSIS REPORT



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	13.4	13.3

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet  
**Sample No.** : GFL0063665 **Received** : 14 Jul 2023  
**Lab Number** : 02570031 **Diagnosed** : 14 Jul 2023  
**Unique Number** : 5607077 **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.

70 Golden Drive,  
 Coquitlam, BC  
 CA V3K 6B5  
 Contact: Allison Adams  
 aadams@gflenv.com  
 T: (604)529-4023  
 F: