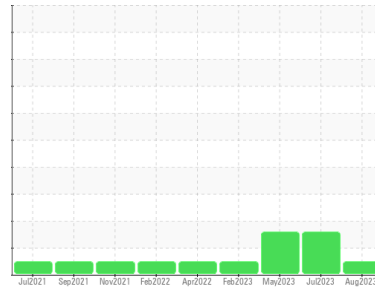




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**401101**

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>GFL0084151</b>	GFL0084197	GFL0073040
Sample Date	Client Info	<b>22 Aug 2023</b>	19 Jul 2023	15 May 2023
Machine Age	hrs	<b>2221</b>	1906	1227
Oil Age	hrs	<b>0</b>	600	600
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	▲ 2.6	▲ 2.6
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	<b>28</b>	52	59
Chromium	ppm ASTM D5185(m) >20	<b>2</b>	3	3
Nickel	ppm ASTM D5185(m) >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >20	<b>&lt;1</b>	2	2
Lead	ppm ASTM D5185(m) >40	<b>&lt;1</b>	2	3
Copper	ppm ASTM D5185(m) >330	<b>&lt;1</b>	2	2
Tin	ppm ASTM D5185(m) >15	<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>3</b>	4	4
Barium	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 60	<b>59</b>	61	65
Manganese	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	1
Magnesium	ppm ASTM D5185(m) 1010	<b>974</b>	1013	1042
Calcium	ppm ASTM D5185(m) 1070	<b>1027</b>	1076	1184
Phosphorus	ppm ASTM D5185(m) 1150	<b>1034</b>	1075	1122
Zinc	ppm ASTM D5185(m) 1270	<b>1160</b>	1221	1269
Sulfur	ppm ASTM D5185(m) 2060	<b>2496</b>	2491	2611
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>4</b>	6	8
Sodium	ppm ASTM D5185(m)	<b>3</b>	5	7
Potassium	ppm ASTM D5185(m) >20	<b>0</b>	<1	2

## INFRA-RED

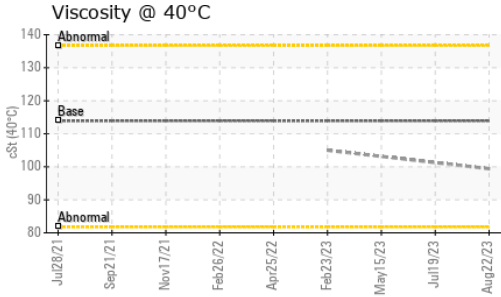
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>1.9</b>	▲ 3.4	▲ 3.4
Nitration	Abs/cm ASTM D7624* >20	<b>7.7</b>	10.9	11.1
Sulfation	Abs/.1mm ASTM D7415* >30	<b>23.2</b>	26.8	26.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	<b>14.8</b>	17.9	17.6



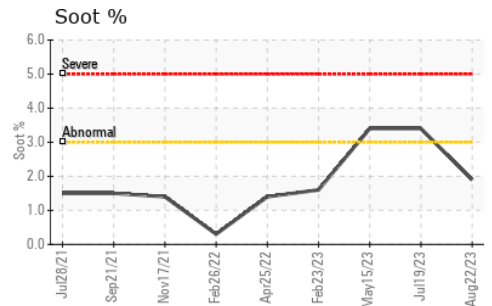
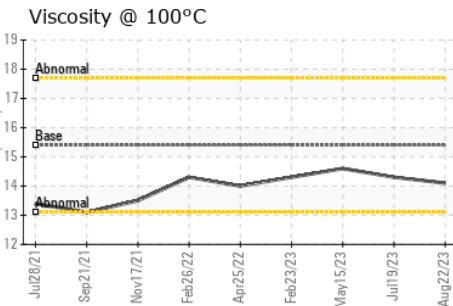
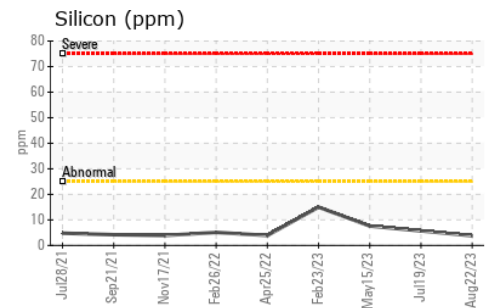
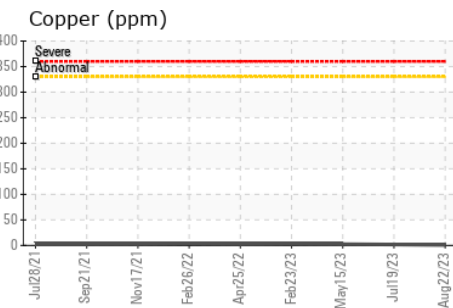
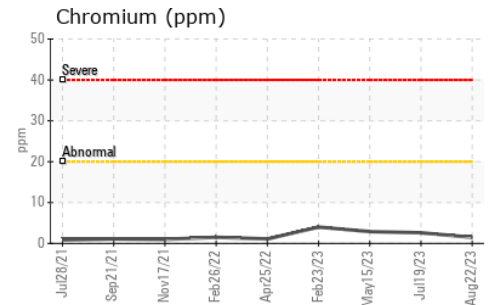
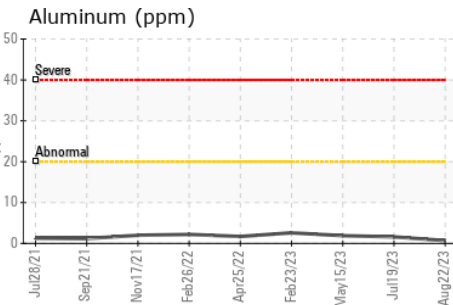
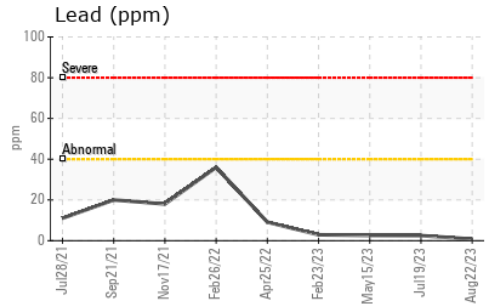
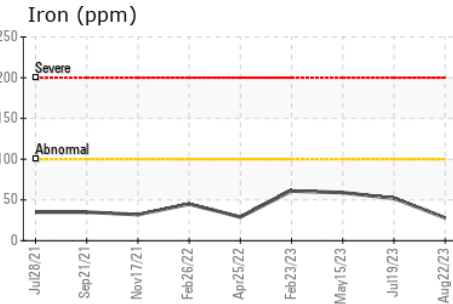
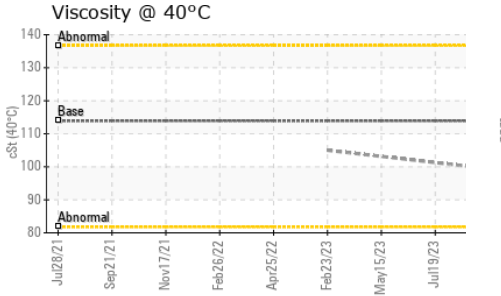
# OIL ANALYSIS REPORT



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 @ 40°C	cSt	ASTM D7279(m)	113.9	99.4	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.1	14.3
Viscosity Index (VI)	Scale	ASTM D2270*	142	144	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 573 - Vancouver Hauling  
**Sample No.** : GFL0084151 **Received** : 08 Sep 2023  
**Lab Number** : 02581088 **Diagnosed** : 08 Sep 2023  
**Unique Number** : 5642153 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

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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