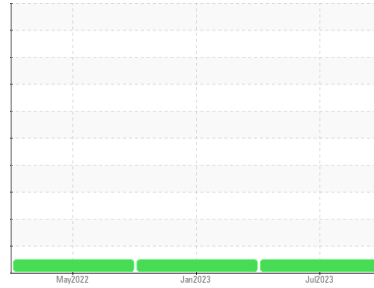




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**810062**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA 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	history 1	history 2	
Sample Number	Client Info	<b>GFL0077052</b>	GFL0054614	GFL0024425	
Sample Date	Client Info	<b>01 Jul 2023</b>	07 Jan 2023	09 May 2022	
Machine Age	hrs	Client Info	<b>3202</b>	2072	444
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Changed	N/A	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history 1	history 2
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	history 1	history 2
Iron	ppm ASTM D5185(m) >80	<b>51</b>	77	41
Chromium	ppm ASTM D5185(m) >5	<b>2</b>	3	<1
Nickel	ppm ASTM D5185(m) >2	<b>&lt;1</b>	<1	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	<1	0
Silver	ppm ASTM D5185(m) >3	<b>&lt;1</b>	0	1
Aluminum	ppm ASTM D5185(m) >30	<b>4</b>	7	8
Lead	ppm ASTM D5185(m) >30	<b>2</b>	4	11
Copper	ppm ASTM D5185(m) >150	<b>27</b>	121	370
Tin	ppm ASTM D5185(m) >5	<b>&lt;1</b>	2	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	history 1	history 2
Boron	ppm ASTM D5185(m)	<b>4</b>	12	205
Barium	ppm ASTM D5185(m)	<b>0</b>	<1	8
Molybdenum	ppm ASTM D5185(m)	<b>59</b>	63	107
Manganese	ppm ASTM D5185(m)	<b>&lt;1</b>	3	8
Magnesium	ppm ASTM D5185(m)	<b>952</b>	865	681
Calcium	ppm ASTM D5185(m)	<b>1044</b>	1137	1535
Phosphorus	ppm ASTM D5185(m)	<b>994</b>	922	741
Zinc	ppm ASTM D5185(m)	<b>1171</b>	1105	863
Sulfur	ppm ASTM D5185(m)	<b>1915</b>	1767	2006
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185(m) >20	<b>12</b>	13	35
Sodium	ppm ASTM D5185(m)	<b>3</b>	10	6
Potassium	ppm ASTM D5185(m) >20	<b>5</b>	6	10

## INFRA-RED

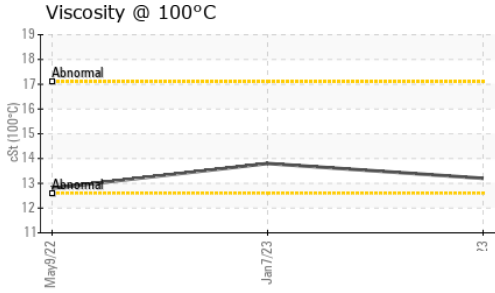
method	limit/base	current	history 1	history 2
Soot %	% ASTM D7844* >3	<b>0.6</b>	0.6	0.1
Nitration	Abs/cm ASTM D7624* >20	<b>13.0</b>	16.4	9.5
Sulfation	Abs/.1mm ASTM D7415* >30	<b>25.9</b>	28.8	25.8

## FLUID DEGRADATION

method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm ASTM D7414* >25	<b>28.5</b>	33.9	21.0



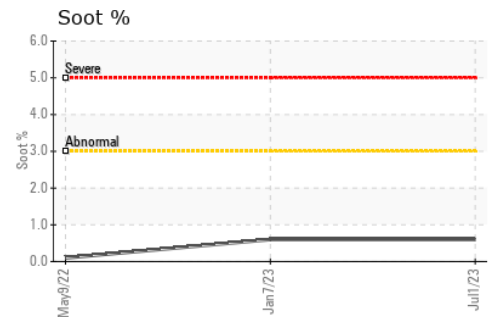
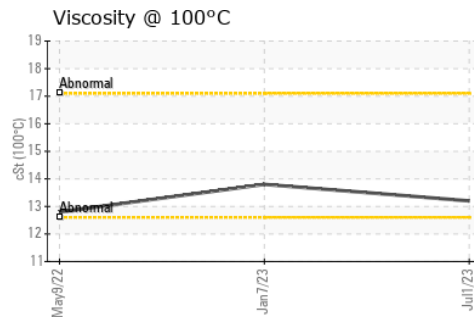
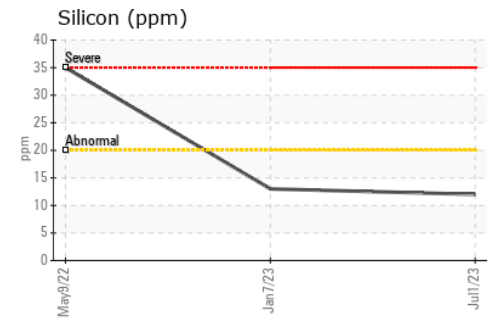
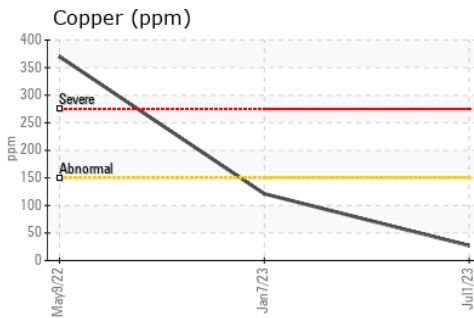
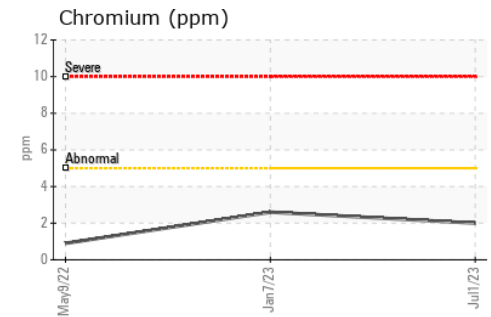
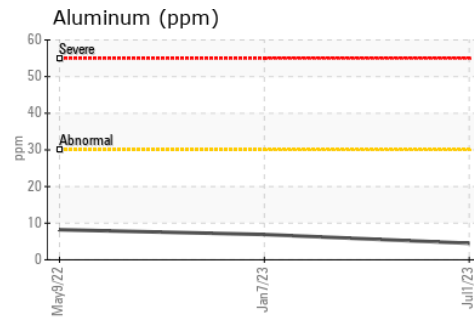
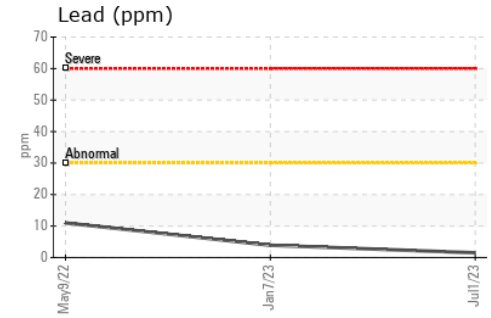
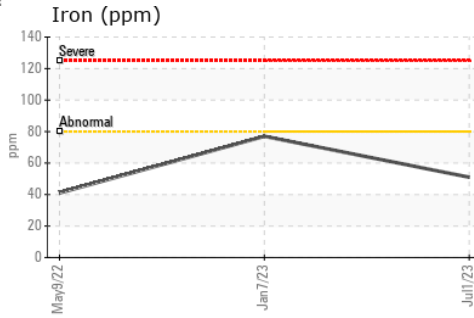
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	13.2	13.8	12.8

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 575 - Squamish Hauling  
**Sample No.** : GFL0077052 **Received** : 12 Jul 2023 38950 Queens Way,  
**Lab Number** : 02569218 **Diagnosed** : 12 Jul 2023 Squamish, BC  
**Unique Number** : 5606264 **Diagnostician** : Kevin Marson CA V8B 0K8  
**Test Package** : MOB 1 **Contact:** Dean Imbeau  
 dimbeau@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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