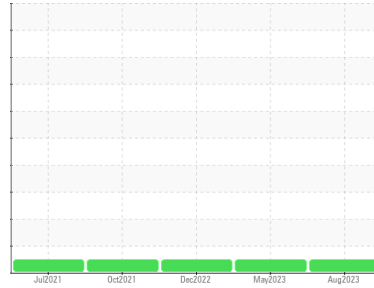




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**910082**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (38)**

## 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>GFL0091032</b>	GFL0081973	GFL0068365
Sample Date	Client Info	<b>10 Aug 2023</b>	25 May 2023	19 Dec 2022
Machine Age	hrs	<b>6864</b>	6864	2417
Oil Age	hrs	<b>0</b>	2417	2417
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 >3.0	<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) >120	<b>10</b>	11	5
Chromium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	0
Nickel	ppm ASTM D5185(m) >5	<b>&lt;1</b>	1	<1
Titanium	ppm ASTM D5185(m) >2	<b>0</b>	0	0
Silver	ppm ASTM D5185(m) >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >20	<b>1</b>	2	1
Lead	ppm ASTM D5185(m) >40	<b>&lt;1</b>	<1	<1
Copper	ppm ASTM D5185(m) >330	<b>1</b>	2	1
Tin	ppm ASTM D5185(m) >15	<b>&lt;1</b>	<1	<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>5</b>	5	6
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>976</b>	951	925
Calcium	ppm ASTM D5185(m) 1070	<b>1046</b>	1118	1069
Phosphorus	ppm ASTM D5185(m) 1150	<b>1002</b>	1034	1034
Zinc	ppm ASTM D5185(m) 1270	<b>1196</b>	1174	1148
Sulfur	ppm ASTM D5185(m) 2060	<b>2250</b>	2394	2549
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>3</b>	3	2
Sodium	ppm ASTM D5185(m)	<b>5</b>	3	2
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

## INFRA-RED

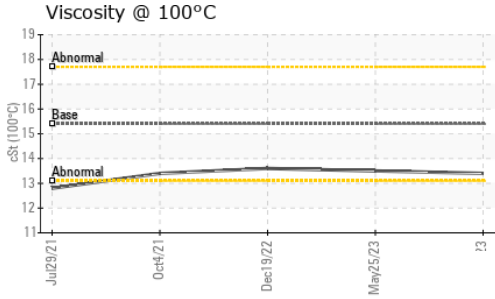
method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >4	<b>0.5</b>	0.4	0
Nitration	Abs/cm ASTM D7624* >20	<b>8.1</b>	8.1	7.3
Sulfation	Abs/.1mm ASTM D7415* >30	<b>21.3</b>	20.0	19.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414* >25	<b>15.8</b>	15.5	14.6



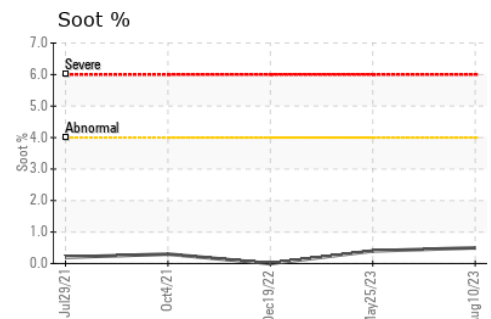
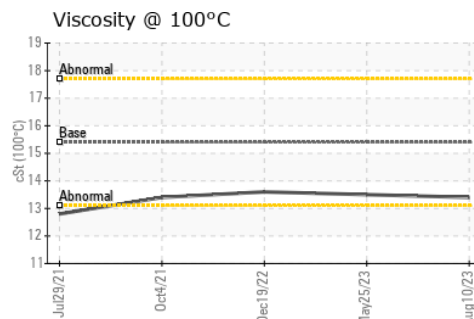
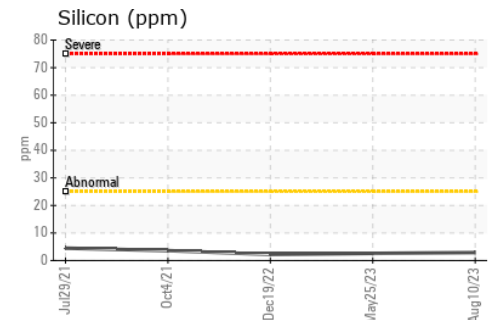
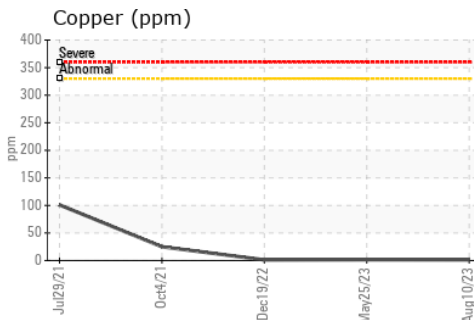
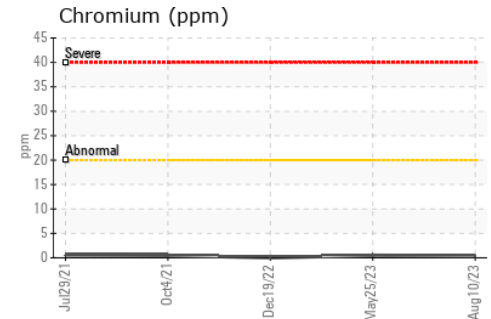
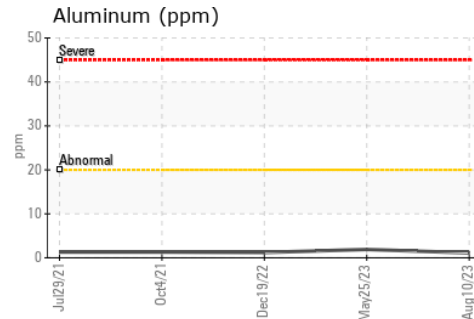
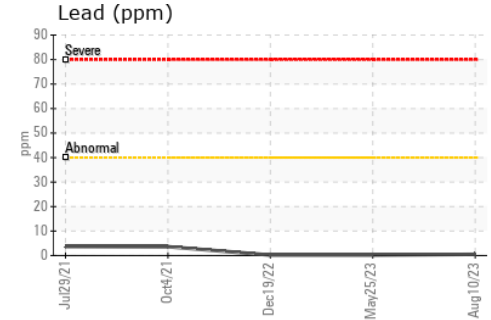
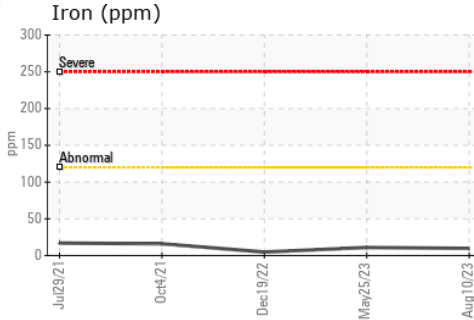
# OIL ANALYSIS REPORT



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 @ 100°C	cSt	ASTM D7279(m)	15.4	13.4	13.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0091032  
**Lab Number** : 02576137  
**Unique Number** : 5629197  
**Test Package** : MOB 1

**GFL Environmental - 217 - Aurora**  
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 AURORA, ON  
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 SEwan@gflenv.com  
 T: (905)713-0005  
 F: (905)713-2445

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.