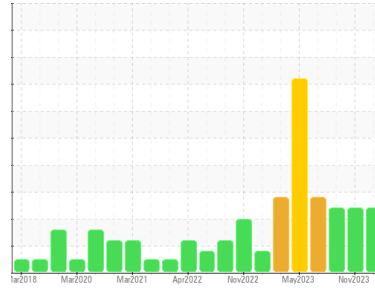




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area  
**[1218455]**  
 Machine Id  
**800019**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (20 LTR)**

## DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0102723</b>	GFL0102683	GFL0089006
Sample Date	Client Info		<b>30 Jan 2024</b>	20 Nov 2023	12 Sep 2023
Machine Age	hrs	Client Info	<b>14142</b>	13662	12998
Oil Age	hrs	Client Info	<b>0</b>	0	12998
Oil Changed	Client Info		<b>Changed</b>	N/A	N/A
Sample Status			<b>SEVERE</b>	SEVERE	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >75	<b>40</b>	37	31
Chromium	ppm	ASTM D5185(m) >5	<b>4</b>	2	2
Nickel	ppm	ASTM D5185(m) >4	<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>	<1	0
Aluminum	ppm	ASTM D5185(m) >15	<b>4</b>	3	4
Lead	ppm	ASTM D5185(m) >25	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m) >100	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >4	<b>0</b>	0	0
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>1</b>	2	2
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>45</b>	46	52
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>733</b>	755	835
Calcium	ppm	ASTM D5185(m) 1070	<b>834</b>	849	894
Phosphorus	ppm	ASTM D5185(m) 1150	<b>767</b>	794	903
Zinc	ppm	ASTM D5185(m) 1270	<b>899</b>	951	1021
Sulfur	ppm	ASTM D5185(m) 2060	<b>1956</b>	1883	2111
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

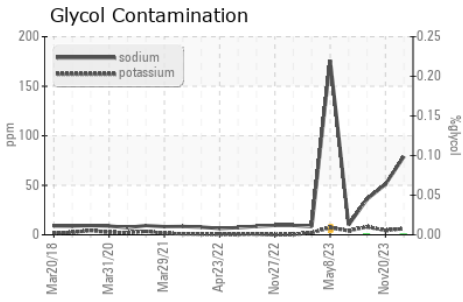
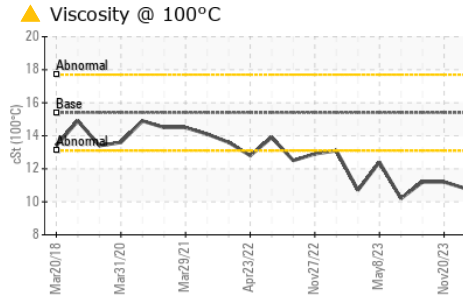
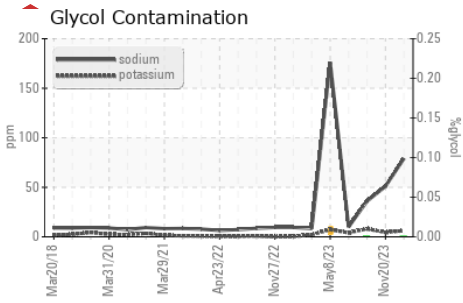
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>5</b>	5	5
Sodium	ppm	ASTM D5185(m)	<b>79</b>	51	36
Potassium	ppm	ASTM D5185(m) >20	<b>6</b>	5	8
Fuel	%	ASTM D7593* >3.0	<b>17.5</b>	13.4	11.5
Glycol	%	ASTM D7922*	<b>0.0</b>	NEG	0.0

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	<b>0.5</b>	0.6	0.6
Nitration	Abs/cm	ASTM D7624* >20	<b>16.4</b>	16.9	14.3
Sulfation	Abs./1mm	ASTM D7415* >30	<b>28.3</b>	34.2	30.3



# OIL ANALYSIS REPORT

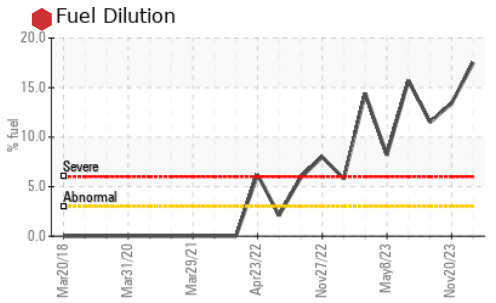
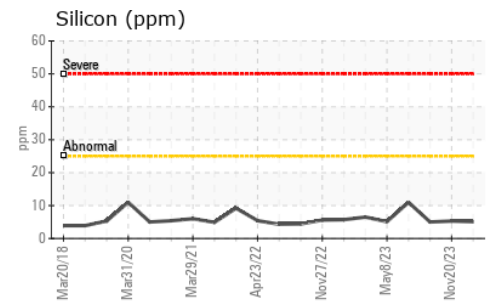
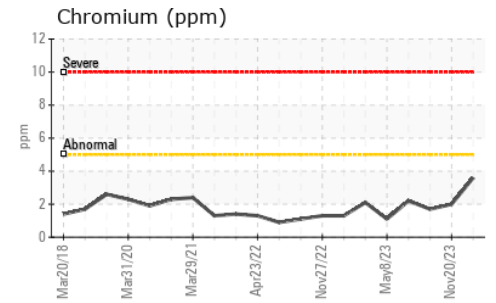
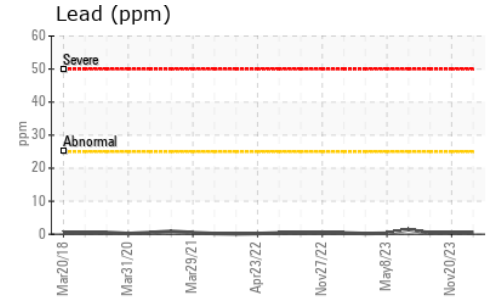
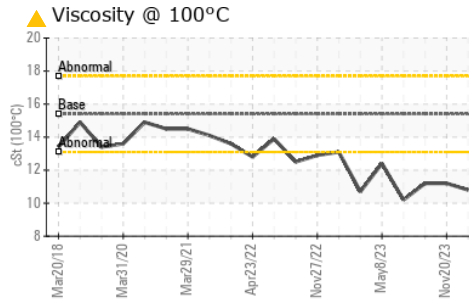
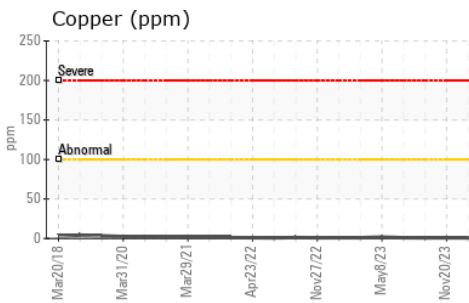
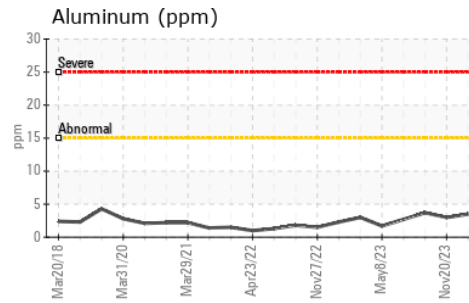
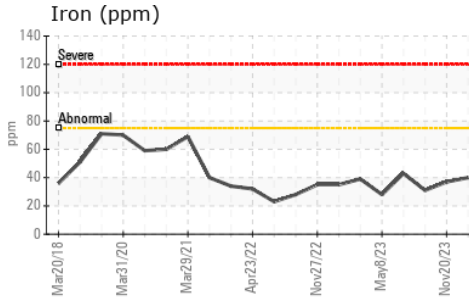


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>36.0</b>	47.2	38.4

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>▲ 10.8</b>	▲ 11.2	▲ 11.2

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0102723  
**Lab Number** : **02613395**  
**Unique Number** : 5722490  
**Test Package** : MOB 1 ( Additional Tests: Glycol, PercentFuel )

**GFL Environmental - 207 - Pickering SW**  
 1034 TOY AVENUE, PICKERING YARD  
 PICKERING, ON  
 CA L1W 3P1  
 Contact: Ian Patton  
 ipatton@gflenv.com  
 T: (905)831-6297  
 F: (905)426-3577

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.