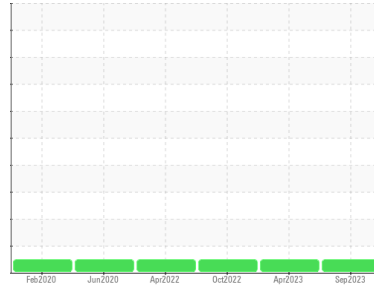




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**401196**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

### 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>GFL0071476</b>	GFL0071494	GFL0054311
Sample Date	Client Info		<b>25 Sep 2023</b>	10 Apr 2023	06 Oct 2022
Machine Age	hrs	Client Info	<b>321490</b>	300136	277988
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	N/A	Changed
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) >100	<b>20</b>	28	28
Chromium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>4</b>	4	7
Lead	ppm	ASTM D5185(m) >40	<b>4</b>	5	8
Copper	ppm	ASTM D5185(m) >330	<b>1</b>	2	5
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>2</b>	4	5
Barium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>63</b>	63	64
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	<1	1
Magnesium	ppm	ASTM D5185(m) 1010	<b>1012</b>	999	947
Calcium	ppm	ASTM D5185(m) 1070	<b>1117</b>	1216	1163
Phosphorus	ppm	ASTM D5185(m) 1150	<b>1026</b>	1140	1040
Zinc	ppm	ASTM D5185(m) 1270	<b>1278</b>	1261	1233
Sulfur	ppm	ASTM D5185(m) 2060	<b>2423</b>	2539	2474
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>5</b>	4	10
Potassium	ppm	ASTM D5185(m) >20	<b>2</b>	2	4

### INFRA-RED

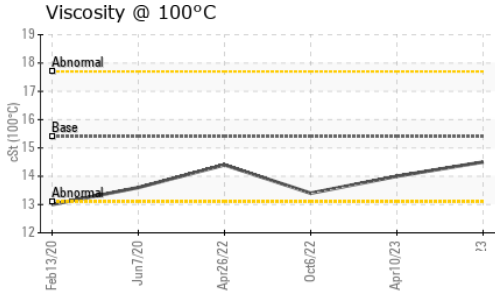
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>1.2</b>	0.8	1.5
Nitration	Abs/cm	ASTM D7624* >20	<b>15.0</b>	11.4	15.2
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>25.7</b>	25.7	27.1

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>26.7</b>	18.8	26.7



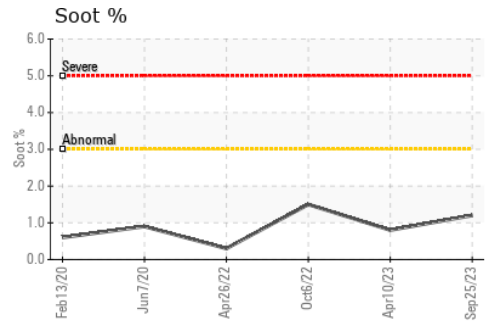
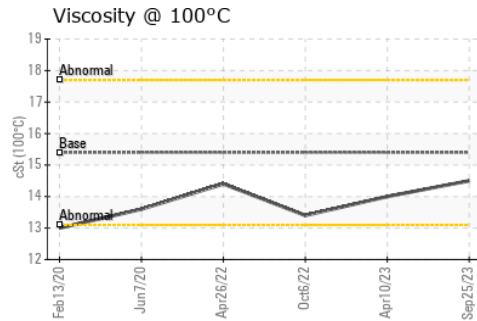
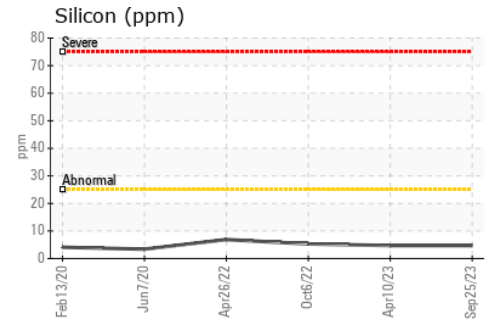
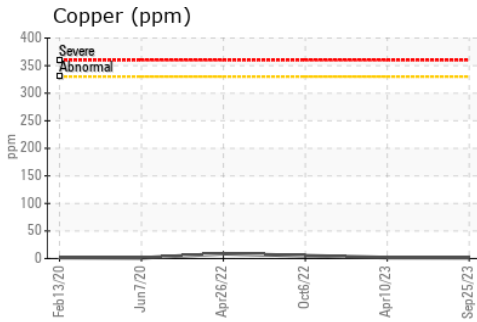
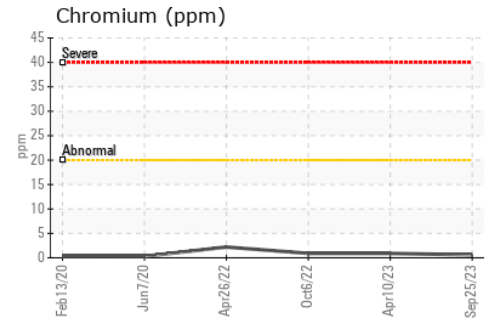
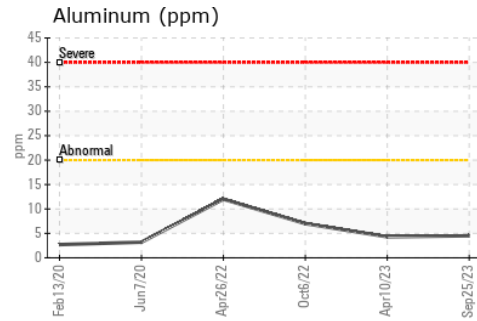
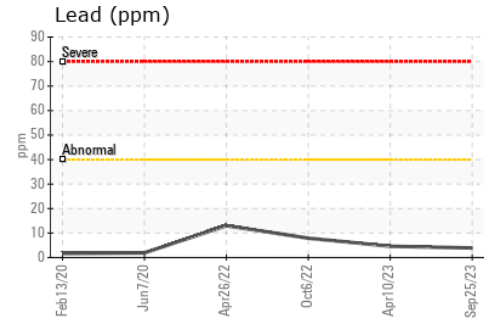
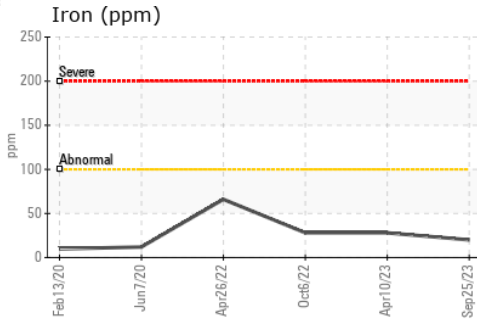
# OIL ANALYSIS REPORT



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	14.5	14.0

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0071476 **Received** : 04 Oct 2023  
**Lab Number** : 02586619 **Diagnosed** : 04 Oct 2023  
**Unique Number** : 5655685 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1

**GFL Environmental - 216**  
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 Toronto, ON  
 CA M4B 1Y9  
 Contact: Tom Hatzioannidis  
 thatzioannidis@gflenv.com  
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 F:

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.