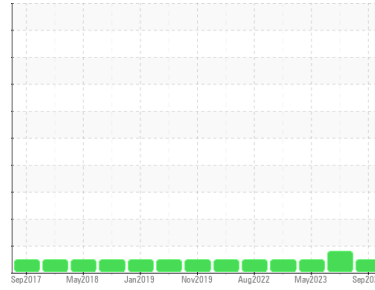




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**801029**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (22 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>GFL0094218</b>	GFL0091044	GFL0081987
Sample Date	Client Info		<b>12 Sep 2023</b>	28 Aug 2023	10 May 2023
Machine Age	hrs	Client Info	<b>8164</b>	8164	8164
Oil Age	hrs	Client Info	<b>0</b>	0	4434
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	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>	0.0	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>80	<b>25</b>	67	28
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	2	1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>14</b>	34	2
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>150	<b>2</b>	3	<1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<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>3</b>	7	6
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>58</b>	64	62
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>951</b>	991	960
Calcium	ppm	ASTM D5185(m)	1070	<b>1060</b>	1109	1167
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1069</b>	1060	1097
Zinc	ppm	ASTM D5185(m)	1270	<b>1184</b>	1271	1243
Sulfur	ppm	ASTM D5185(m)	2060	<b>2572</b>	2449	2518
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>20	<b>6</b>	8	6
Sodium	ppm	ASTM D5185(m)		<b>8</b>	23	8
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	12	<1

## INFRA-RED

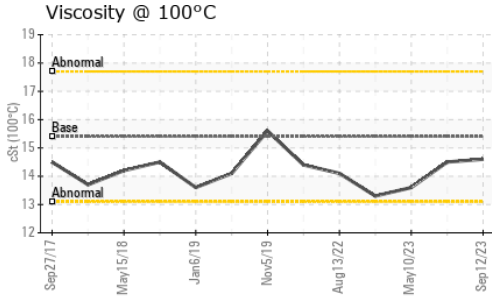
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0.8	0.6
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.7</b>	12.4	11.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.2</b>	25.1	22.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.5</b>	18.2	20.1



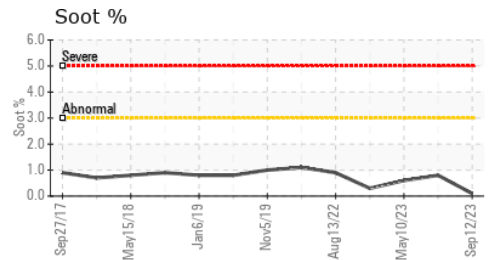
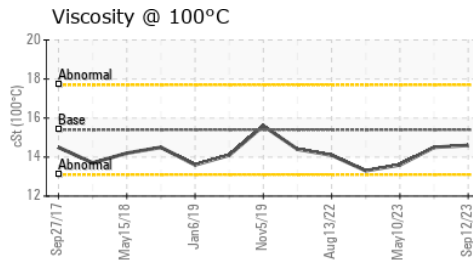
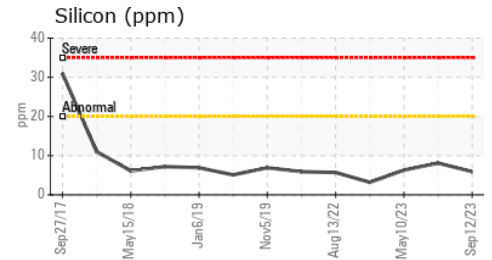
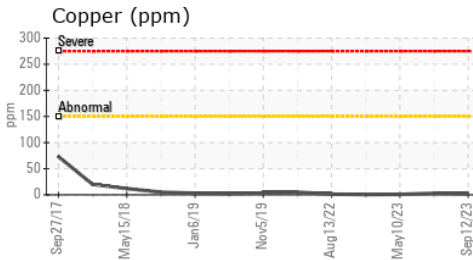
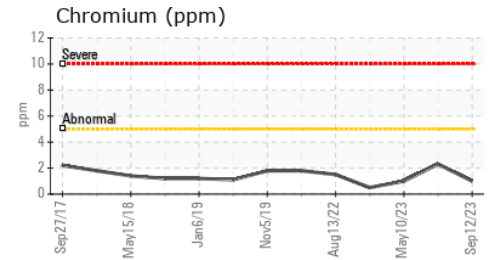
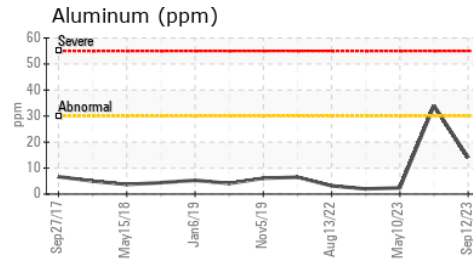
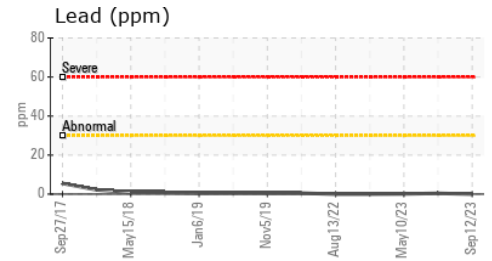
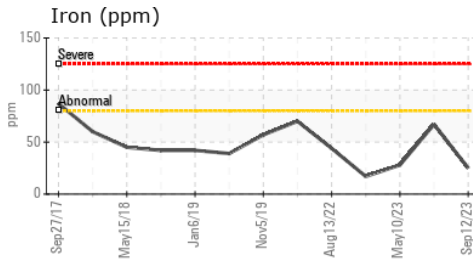
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
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	14.6	14.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0094218 **Received** : 14 Sep 2023  
**Lab Number** : 02582488 **Diagnosed** : 14 Sep 2023  
**Unique Number** : 5643553 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**GFL Environmental - 217 - Aurora**  
 14131 BAYVIEW AVE, AURORA YARD  
 AURORA, ON  
 CA L4G 0K6  
 Contact: Mike Havens  
 MHavens@gflenv.com  
 T:  
 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.