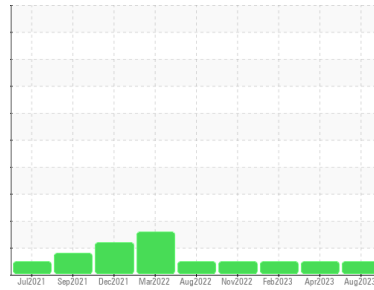




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**401117**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 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	history1	history2
Sample Number	Client Info		<b>GFL0084122</b>	GFL0063680	GFL0073173
Sample Date	Client Info		<b>02 Aug 2023</b>	25 Apr 2023	09 Feb 2023
Machine Age	hrs	Client Info	<b>23931</b>	23204	22692
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
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)	>80	<b>28</b>	21	22
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>150	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	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>3</b>	3	1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>60</b>	60	60
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>970</b>	980	969
Calcium	ppm	ASTM D5185(m)	1070	<b>1028</b>	1099	1091
Phosphorus	ppm	ASTM D5185(m)	1150	<b>991</b>	1040	1031
Zinc	ppm	ASTM D5185(m)	1270	<b>1182</b>	1200	1182
Sulfur	ppm	ASTM D5185(m)	2060	<b>2310</b>	2482	2417
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>13</b>	4	4
Sodium	ppm	ASTM D5185(m)		<b>5</b>	3	1
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	4	<1

## INFRA-RED

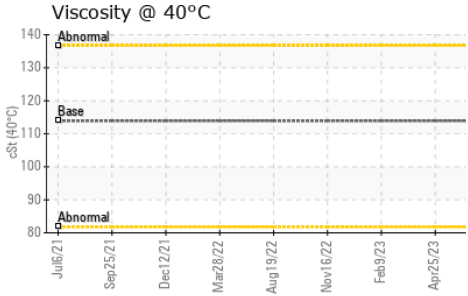
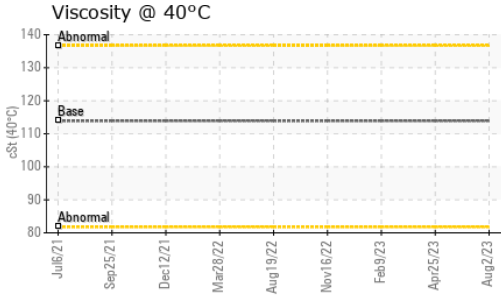
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.3</b>	0.2	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.5</b>	9.0	10.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.3</b>	20.7	23.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>22.3</b>	19.2	21.9



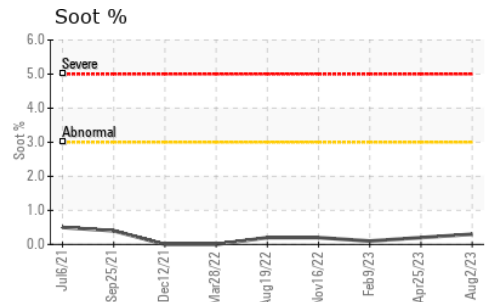
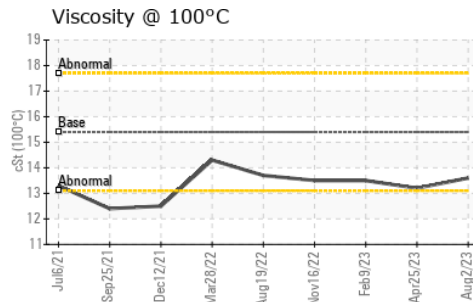
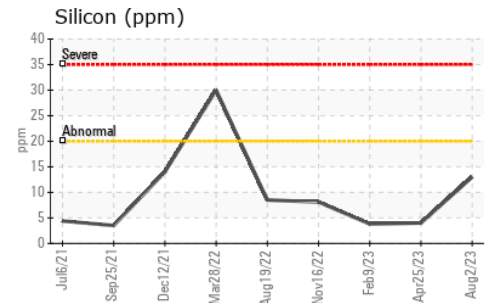
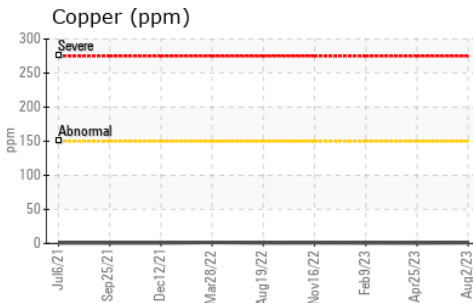
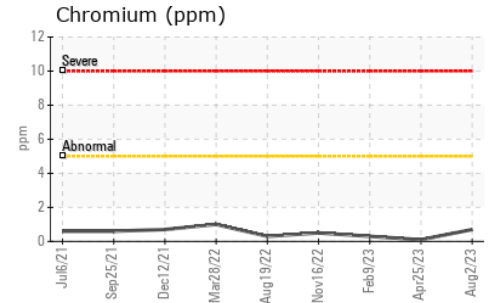
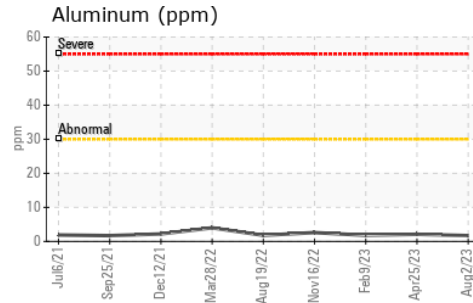
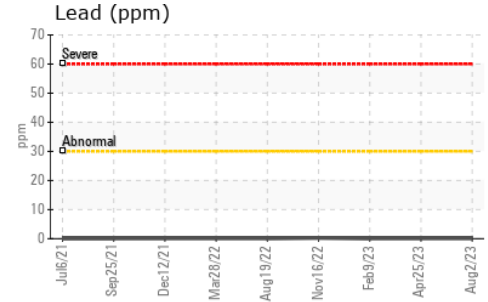
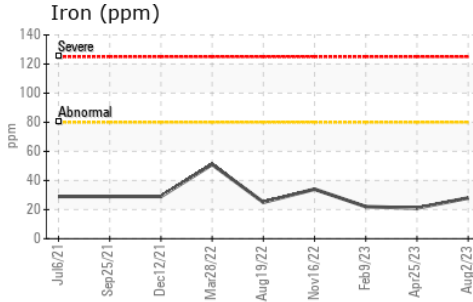
# OIL ANALYSIS REPORT



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 @ 40°C	cSt	ASTM D7279(m)	113.9	97.3	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.6	13.2
Viscosity Index (VI)	Scale	ASTM D2270*	142	140	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 573 - Vancouver Hauling  
**Sample No.** : GFL0084122 **Received** : 08 Sep 2023  
**Lab Number** : 02581087 **Diagnosed** : 08 Sep 2023  
**Unique Number** : 5642152 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

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.

Contact: Catia Klagenberg Alves  
 cklagenbergalves@gflenv.com

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