



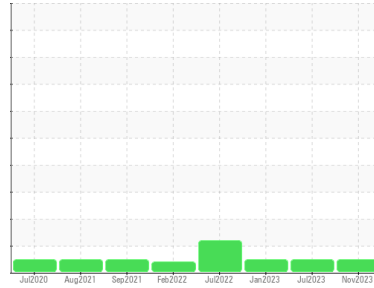
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**S0018**  
 Machine Id  
**828009**  
 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>GFL0097455</b>	GFL	GFL0059859
Sample Date	Client Info	<b>27 Nov 2023</b>	05 Jul 2023	12 Jan 2023
Machine Age	hrs	<b>75487</b>	0	0
Oil Age	hrs	<b>5308</b>	0	0
Oil Changed	Client Info	<b>Changed</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
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >80	<b>13</b>	17	11
Chromium	ppm ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185(m) >2	<b>&lt;1</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) >30	<b>3</b>	4	2
Lead	ppm ASTM D5185(m) >30	<b>&lt;1</b>	0	<1
Copper	ppm ASTM D5185(m) >150	<b>1</b>	1	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>2</b>	2	4
Barium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	0	0
Molybdenum	ppm ASTM D5185(m) 60	<b>56</b>	56	55
Manganese	ppm ASTM D5185(m) 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>906</b>	930	919
Calcium	ppm ASTM D5185(m) 1070	<b>1009</b>	1045	1107
Phosphorus	ppm ASTM D5185(m) 1150	<b>936</b>	1038	1024
Zinc	ppm ASTM D5185(m) 1270	<b>1155</b>	1151	1154
Sulfur	ppm ASTM D5185(m) 2060	<b>2362</b>	2425	2534
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

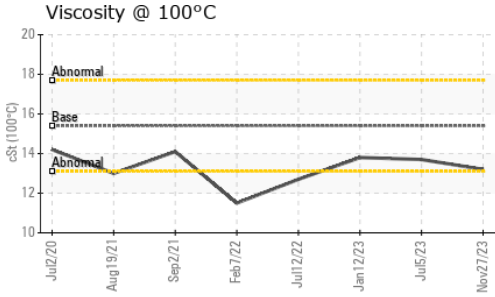
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	<b>5</b>	11	5
Sodium	ppm ASTM D5185(m)	<b>2</b>	2	7
Potassium	ppm ASTM D5185(m) >20	<b>2</b>	5	2

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0.2</b>	0.2	0
Nitration	Abs/cm ASTM D7624* >20	<b>8.1</b>	8.6	7.6
Sulfation	Abs.1mm ASTM D7415* >30	<b>19.1</b>	19.2	20.2



# OIL ANALYSIS REPORT



### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>15.8</b>	15.9	15.6

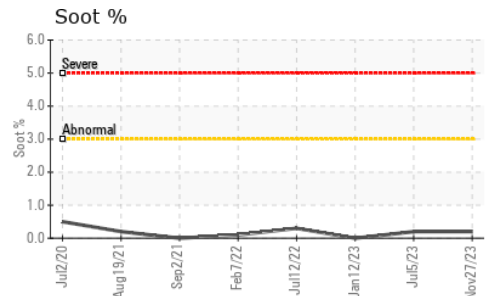
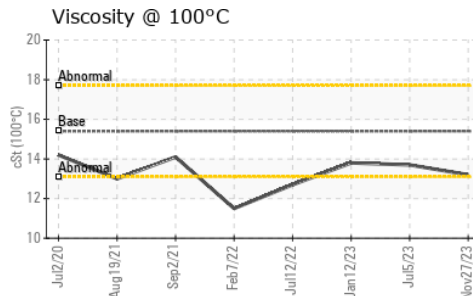
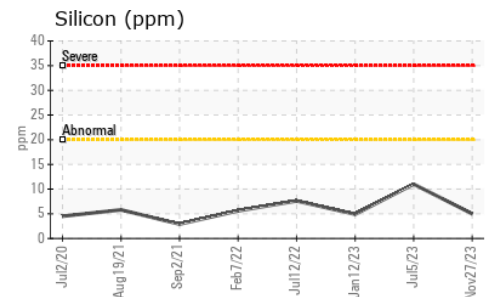
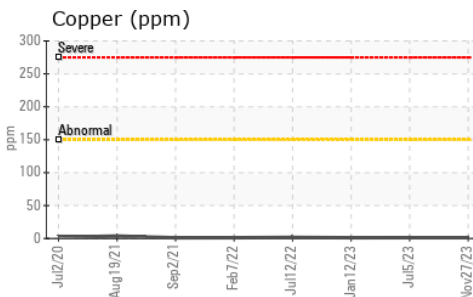
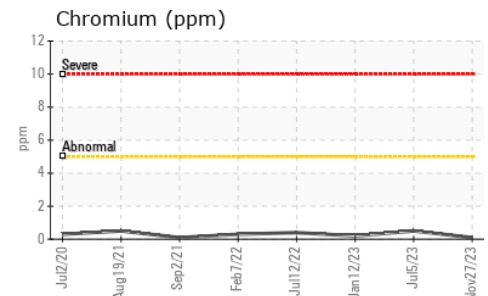
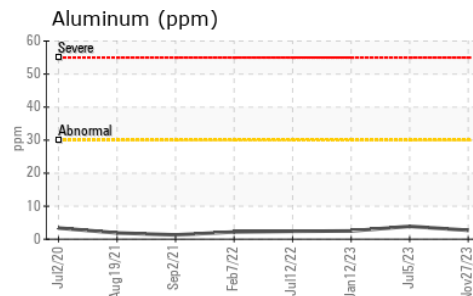
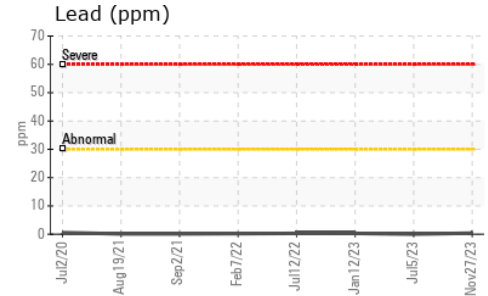
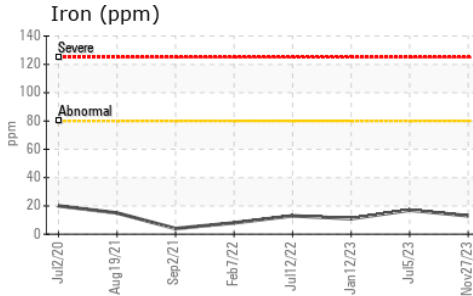
### VISUAL

	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>13.2</b>	13.7	13.8

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 221 - Windsor**  
**Sample No.** : GFL0097455 **Received** : 01 Dec 2023 905 Tecumseh Road W  
**Lab Number** : **02600016** **Diagnosed** : 01 Dec 2023 Windsor, ON  
**Unique Number** : 5685096 **Diagnostician** : Wes Davis CA N8W 4J5  
**Test Package** : MOB 1 **Contact:** Rhys Marotte  
rmarotte@gflenv.com

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.