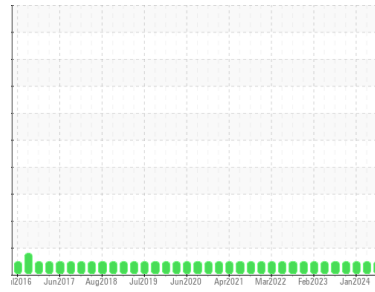




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**5673**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (40 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>GFL0124702</b>	GFL0110683	GFL0110709
Sample Date	Client Info		<b>16 Jul 2024</b>	25 Apr 2024	19 Jan 2024
Machine Age	hrs	Client Info	<b>19743</b>	19269	18853
Oil Age	hrs	Client Info	<b>0</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	>3.0	<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)	>65	<b>10</b>	12	16
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	1	2
Titanium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>35	<b>4</b>	4	6
Lead	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>180	<b>7</b>	13	12
Tin	ppm	ASTM D5185(m)	>8	<b>&lt;1</b>	<1	1
Antimony	ppm	ASTM D5185(m)	>35	<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	1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>58</b>	61	59
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>952</b>	982	990
Calcium	ppm	ASTM D5185(m)	1070	<b>991</b>	1070	1095
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1003</b>	995	989
Zinc	ppm	ASTM D5185(m)	1270	<b>1157</b>	1197	1205
Sulfur	ppm	ASTM D5185(m)	2060	<b>2418</b>	2468	2421
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

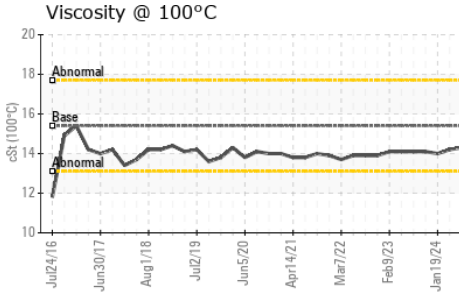
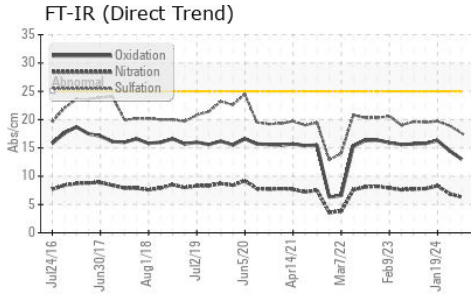
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	<b>2</b>	2	3
Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	2

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.3</b>	6.9	8.3
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>17.6</b>	18.9	19.7



# OIL ANALYSIS REPORT



## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	13.0	14.5	16.3

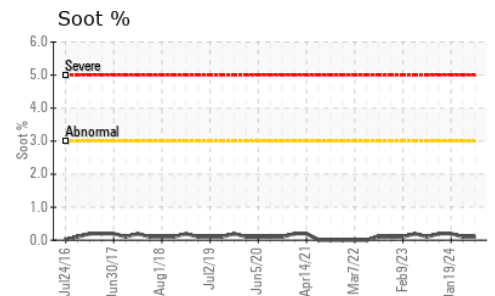
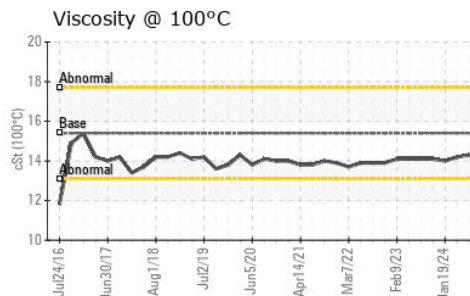
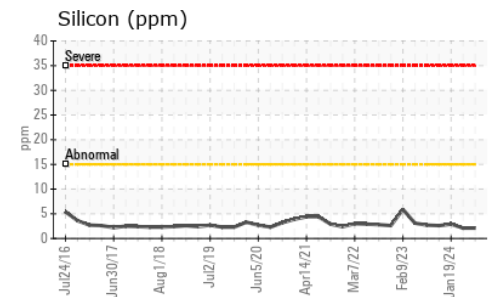
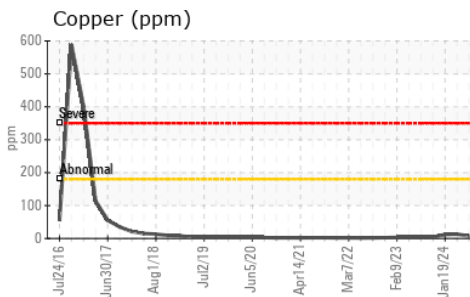
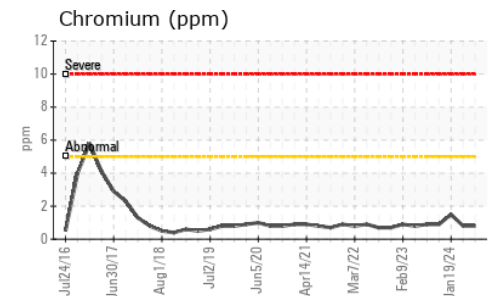
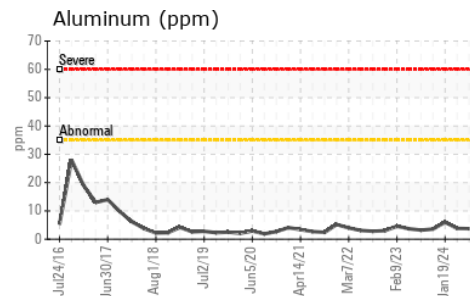
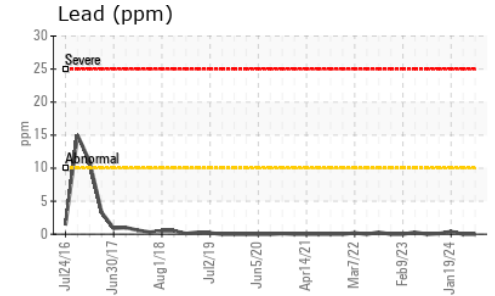
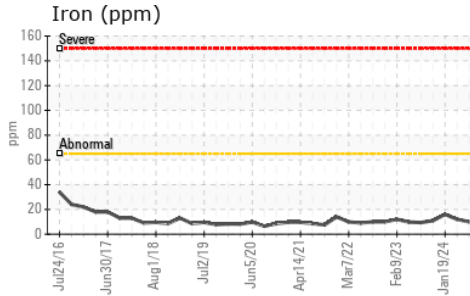
## VISUAL

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

## FLUID PROPERTIES

method	limit/base	current	history1	history2	
Visc @ 100°C	cSt ASTM D7279(m)	15.4	14.3	14.2	14.0

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0124702  
**Lab Number** : 02648587  
**Unique Number** : 5814139  
**Test Package** : MOB 1

**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.