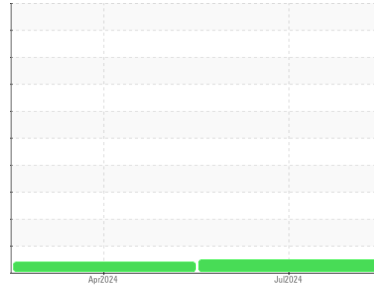




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

[1306892]

Machine Id

114012

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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>GFL0124688</b>	GFL0118506	---
Sample Date	Client Info		<b>06 Jul 2024</b>	22 Apr 2024	---
Machine Age	hrs	Client Info	<b>840</b>	180	---
Oil Age	hrs	Client Info	<b>600</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	ABNORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	0.3	---
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >90	<b>15</b>	45	---
Chromium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m) >2	<b>0</b>	0	---
Silver	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185(m) >20	<b>6</b>	7	---
Lead	ppm	ASTM D5185(m) >40	<b>&lt;1</b>	3	---
Copper	ppm	ASTM D5185(m) >330	<b>5</b>	23	---
Tin	ppm	ASTM D5185(m) >15	<b>&lt;1</b>	2	---
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 250	<b>5</b>	49	---
Barium	ppm	ASTM D5185(m) 10	<b>&lt;1</b>	5	---
Molybdenum	ppm	ASTM D5185(m) 100	<b>57</b>	50	---
Manganese	ppm	ASTM D5185(m)	<b>&lt;1</b>	5	---
Magnesium	ppm	ASTM D5185(m) 450	<b>917</b>	561	---
Calcium	ppm	ASTM D5185(m) 3000	<b>1068</b>	1551	---
Phosphorus	ppm	ASTM D5185(m) 1150	<b>956</b>	714	---
Zinc	ppm	ASTM D5185(m) 1350	<b>1146</b>	840	---
Sulfur	ppm	ASTM D5185(m) 4250	<b>2469</b>	1925	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	---

## CONTAMINANTS

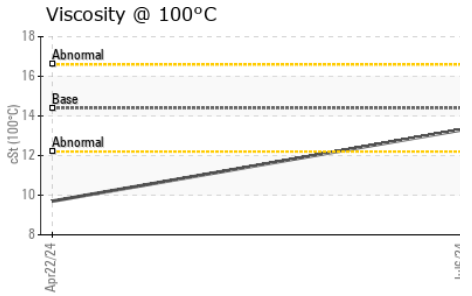
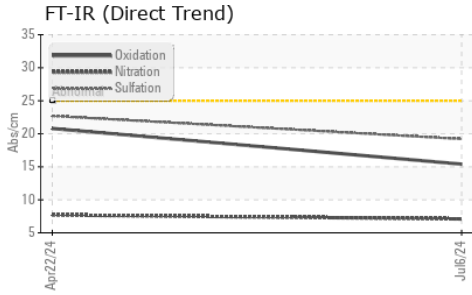
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>11</b>	48	---
Sodium	ppm	ASTM D5185(m) >158	<b>4</b>	5	---
Potassium	ppm	ASTM D5185(m) >20	<b>14</b>	16	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	<b>0</b>	0	---
Nitration	Abs/cm	ASTM D7624* >20	<b>7.1</b>	7.7	---
Sulfation	Abs./1mm	ASTM D7415* >30	<b>19.2</b>	22.7	---



# OIL ANALYSIS REPORT



### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	15.4	20.8

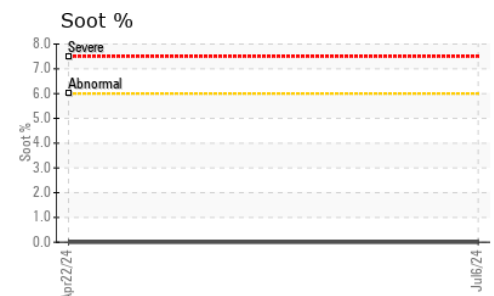
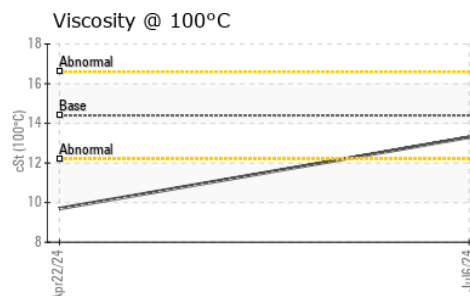
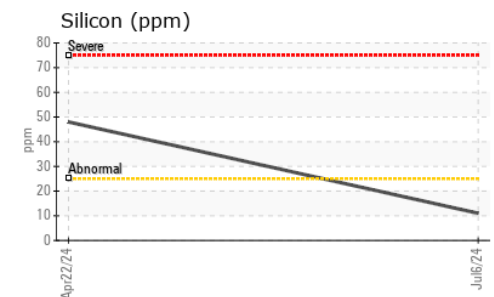
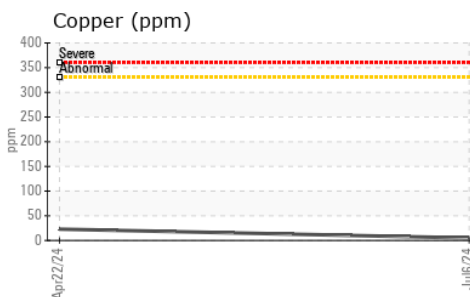
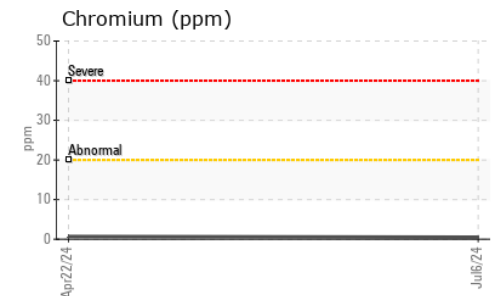
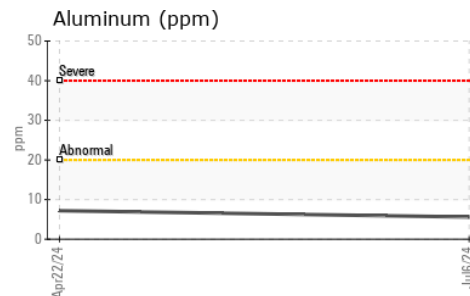
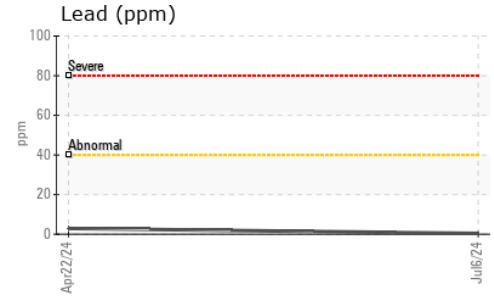
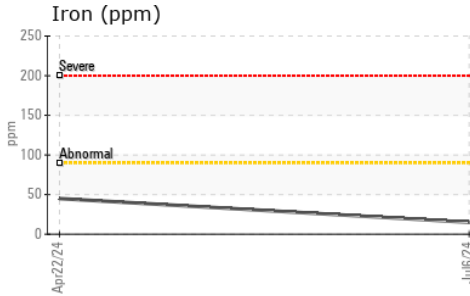
### VISUAL

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

### FLUID PROPERTIES

	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.3	▲ 9.7

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0124688  
**Lab Number** : 02646892  
**Unique Number** : 5812444  
**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.