



Machine Id  
**MACK 423055**  
Component  
**Diesel Engine**  
Fluid  
**SAE 15W40 (--- GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0092981</b>	---	---
Sample Date		Client Info		<b>18 Jun 2024</b>	---	---
Machine Age	kms	Client Info		<b>594816</b>	---	---
Oil Age	kms	Client Info		<b>0</b>	---	---
Filter Age	kms	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>8</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>5</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

### CONTAMINATION

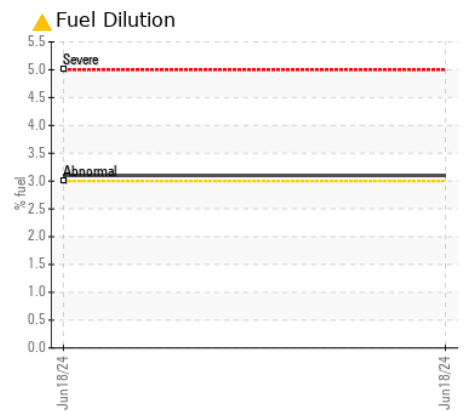
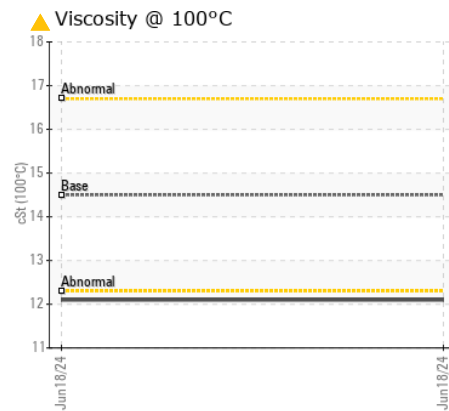
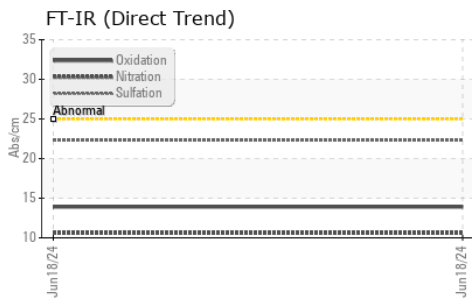
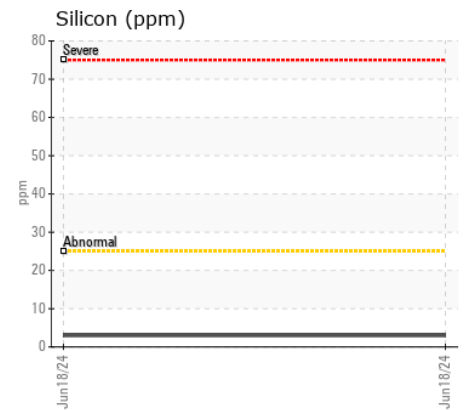
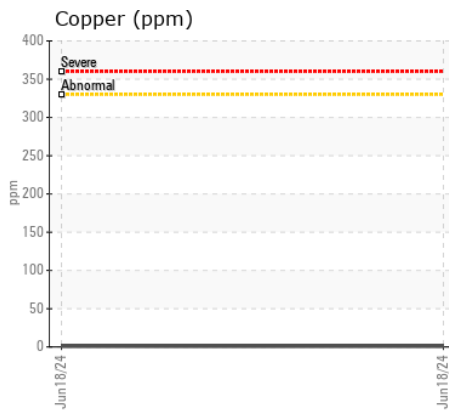
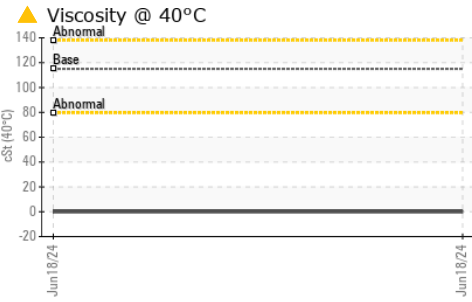
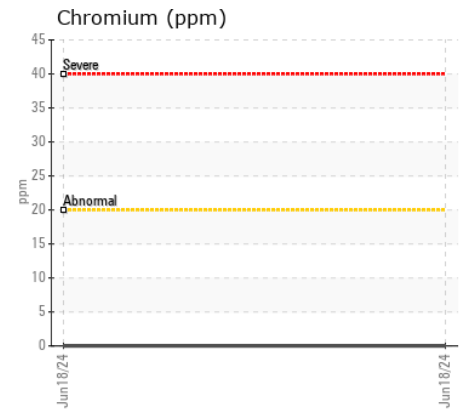
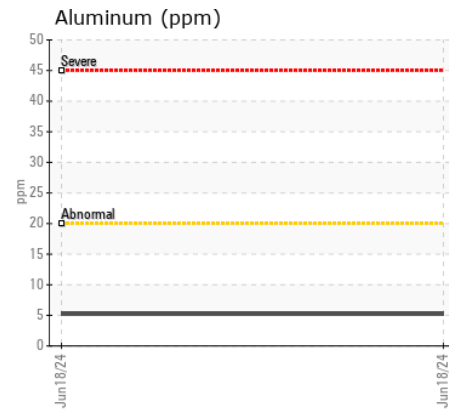
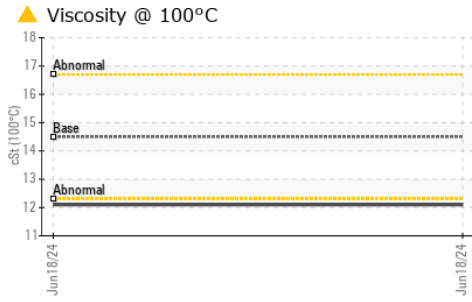
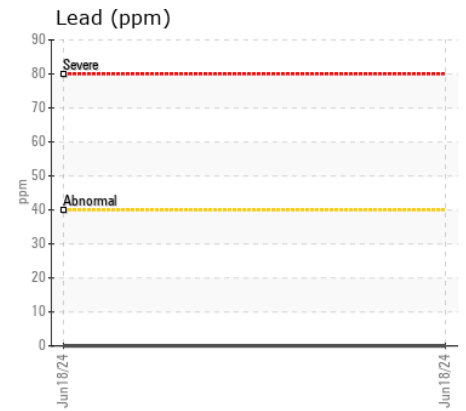
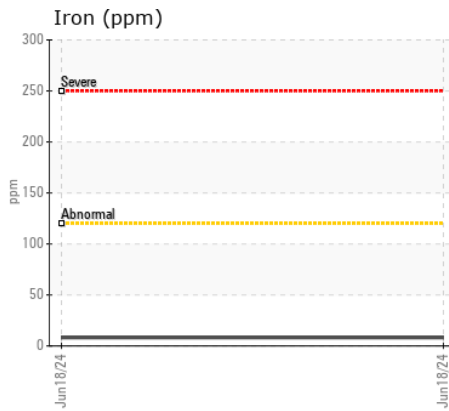
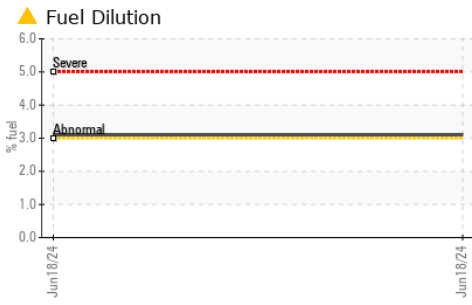
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	---	---
Fuel	%	ASTM D7593*	>3.0	<b>▲ 3.1</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	ASTM D7844*	>4	<b>0</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.6</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.3</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---

### FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)	>57	<b>1</b>	---	---
Boron	ppm	ASTM D5185(m)		<b>30</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>8</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>100</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>1879</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>884</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1062</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>3070</b>	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.9</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	115	<b>▲ 0</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	<b>▲ 12.1</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0092981  
**Lab Number** : 02644094  
**Unique Number** : 5801633  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, KV40, PercentFuel, VI, Visual )

**GFL Environmental - 800 - Sydney**  
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 Contact: Nathan Myers  
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Received : 26 Jun 2024  
 Tested : 27 Jun 2024  
 Diagnosed : 27 Jun 2024 - Wes Davis  
 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.

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F: