



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**201029**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0125811</b>	GFL0093628	GFL0087445
Sample Date		Client Info		<b>11 Jun 2024</b>	12 Sep 2023	12 Jul 2023
Machine Age	kms	Client Info		<b>368432</b>	352827	110271
Oil Age	kms	Client Info		<b>0</b>	0	0
Filter Age	kms	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>4</b>	4	3
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>30	<b>2</b>	2	<1
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

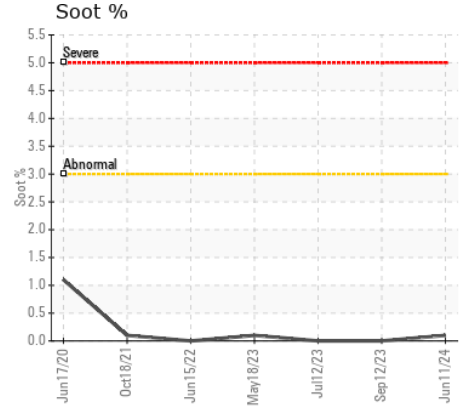
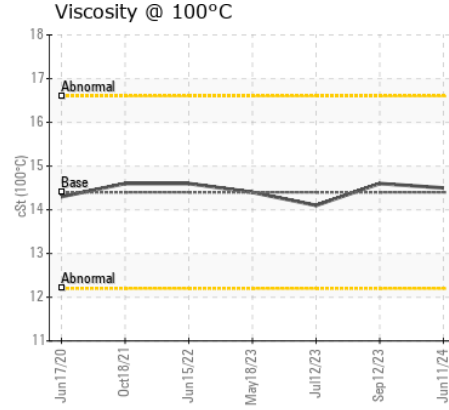
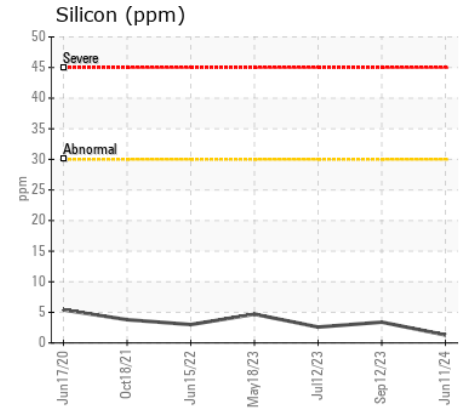
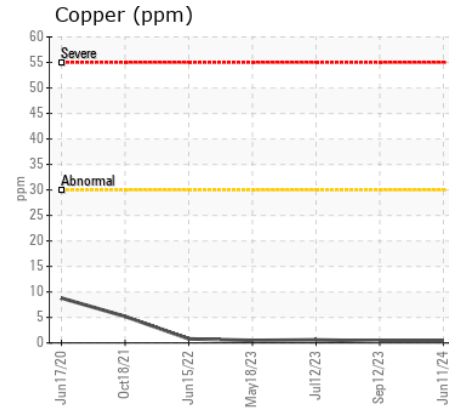
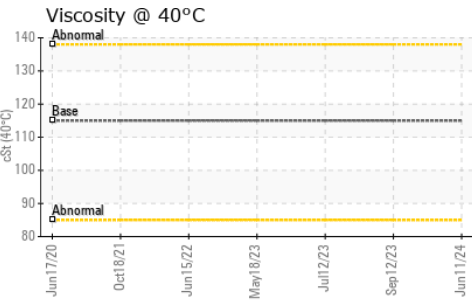
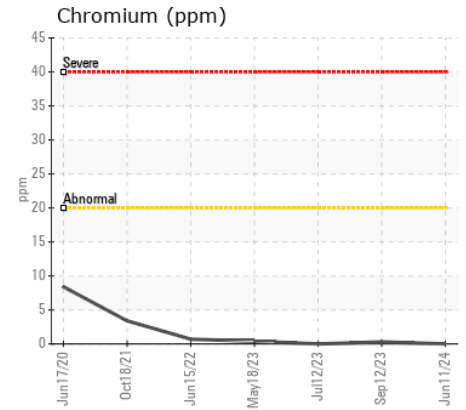
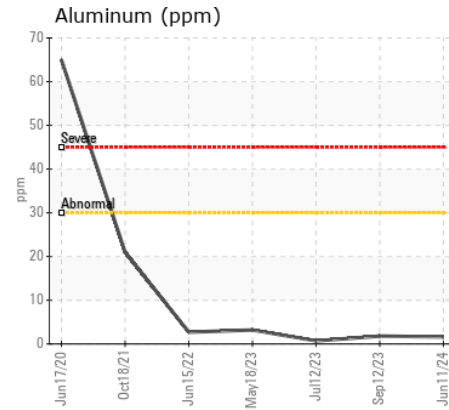
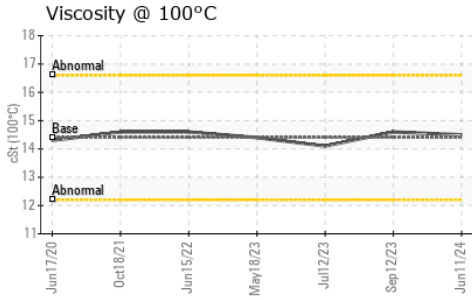
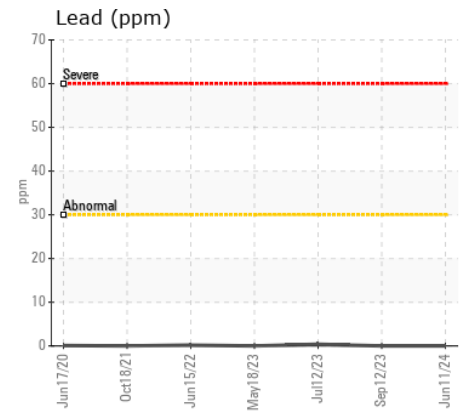
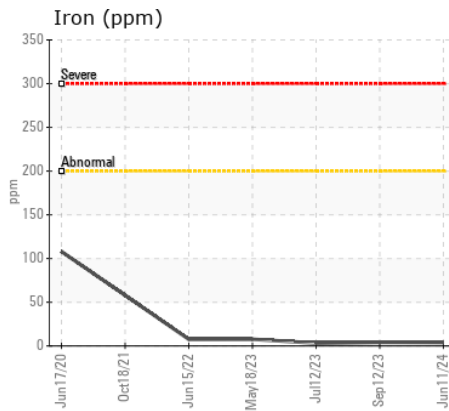
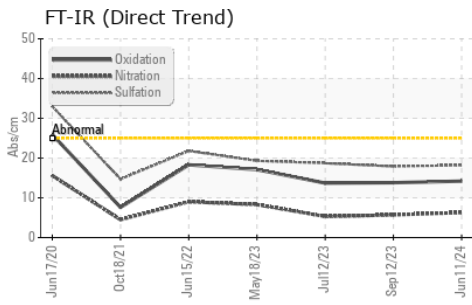
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	<b>1</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
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
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.3</b>	5.7	5.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.2</b>	17.9	18.7
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>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>158	<b>1</b>	2	6
Boron	ppm	ASTM D5185(m)	250	<b>4</b>	7	3
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>58</b>	56	59
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185(m)	450	<b>970</b>	895	991
Calcium	ppm	ASTM D5185(m)	3000	<b>1014</b>	1126	1055
Phosphorus	ppm	ASTM D5185(m)	1150	<b>996</b>	1005	1067
Zinc	ppm	ASTM D5185(m)	1350	<b>1172</b>	1111	1176
Sulfur	ppm	ASTM D5185(m)	4250	<b>2588</b>	2491	2580
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.2</b>	13.8	13.7
Visc @ 40°C	cSt	ASTM D7279(m)	115	<b>106</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>14.5</b>	14.6	14.1
Viscosity Index (VI)	Scale	ASTM D2270*	126	<b>140</b>	---	---



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0125811  
**Lab Number** : 02641571  
**Unique Number** : 5799110  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**GFL Environmental - 225 - COT(D2)**  
 20 Brydon Drive  
 Etobicoke, ON  
 CA M9W 5R6  
 Contact: Rick Philip  
 rphilip@gflenv.com  
 T: (416)745-8080  
 F:

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.