



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



Machine Id  
**413135**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (25 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0122310</b>	GFL0111757	WC0875110
Sample Date		Client Info		<b>21 May 2024</b>	06 Feb 2024	13 Dec 2023
Machine Age	hrs	Client Info		<b>21854</b>	1592	21854
Oil Age	hrs	Client Info		<b>600</b>	0	20611
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>13</b>	12	5
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185(m)	>5	<b>2</b>	3	2
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	3	1
Lead	ppm	ASTM D5185(m)	>40	<b>4</b>	2	1
Copper	ppm	ASTM D5185(m)	>330	<b>189</b>	72	62
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

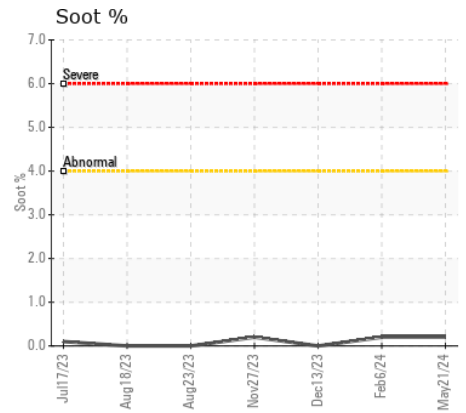
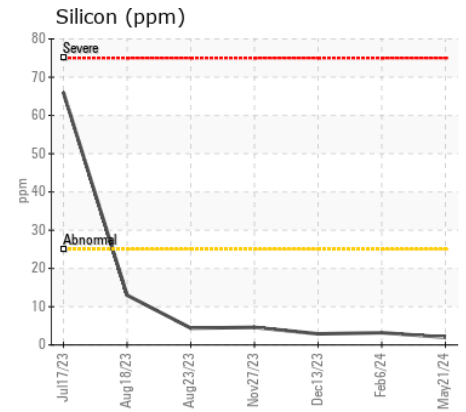
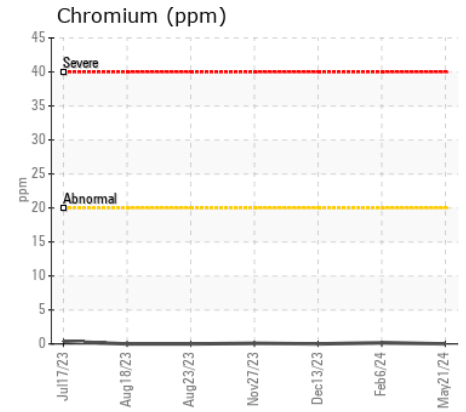
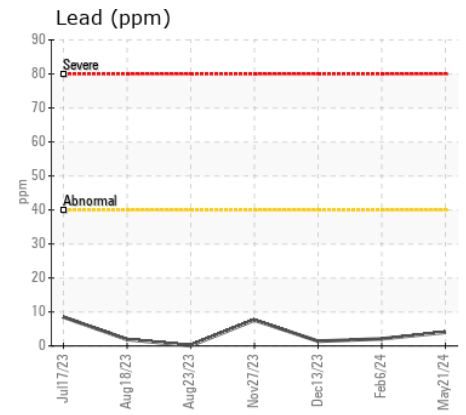
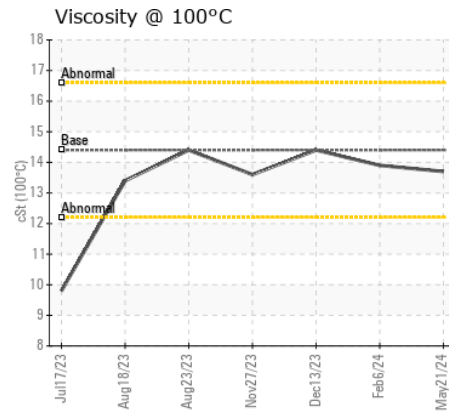
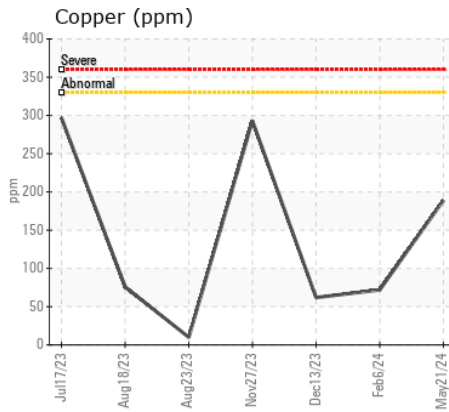
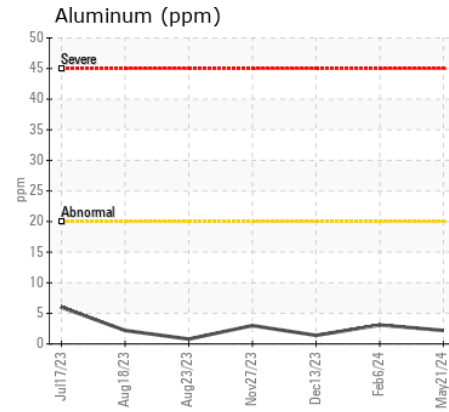
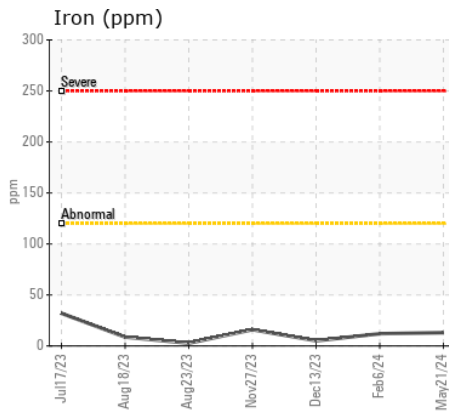
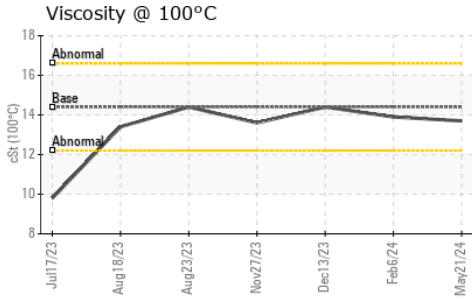
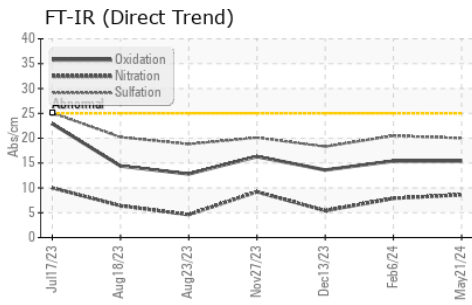
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>6</b>	6	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*	>4	<b>0.2</b>	0.2	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.6</b>	7.9	5.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.0</b>	20.5	18.3
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>	<1	1
Boron	ppm	ASTM D5185(m)	250	<b>7</b>	13	21
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	100	<b>60</b>	60	60
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	450	<b>965</b>	940	940
Calcium	ppm	ASTM D5185(m)	3000	<b>1060</b>	1085	1018
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1003</b>	1038	997
Zinc	ppm	ASTM D5185(m)	1350	<b>1198</b>	1203	1179
Sulfur	ppm	ASTM D5185(m)	4250	<b>2496</b>	2717	2635
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.4</b>	15.4	13.6
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.7</b>	13.9	14.4



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0122310  
**Lab Number** : 02637887  
**Unique Number** : 5787049  
**Test Package** : MOB 1  
**Received** : 28 May 2024  
**Tested** : 28 May 2024  
**Diagnosed** : 28 May 2024 - Wes Davis

**GFL Environmental - 217 - Aurora**  
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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.