



Machine Id  
**727008**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0113252</b>	GFL0053577	GFL0078525
Sample Date		Client Info		<b>27 Feb 2024</b>	29 Sep 2023	20 Apr 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>16492</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>8</b>	5	5
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	1	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	<1	2
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

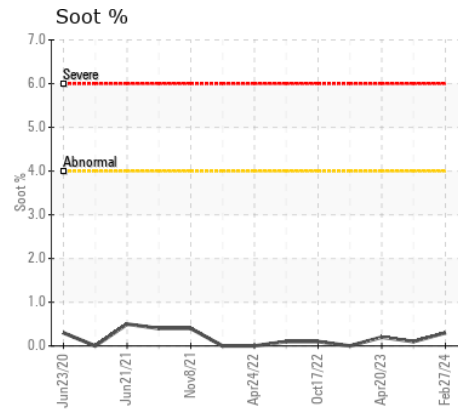
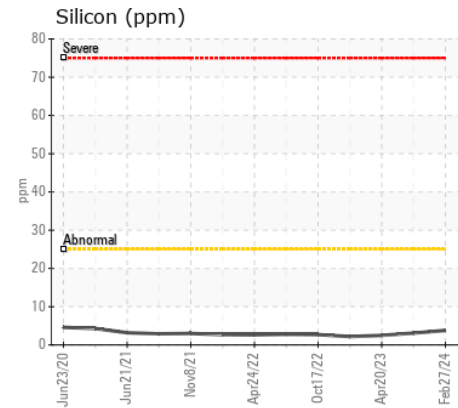
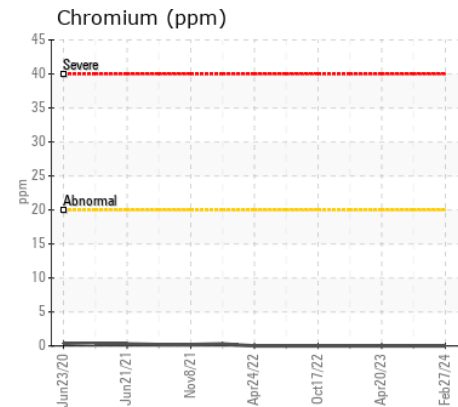
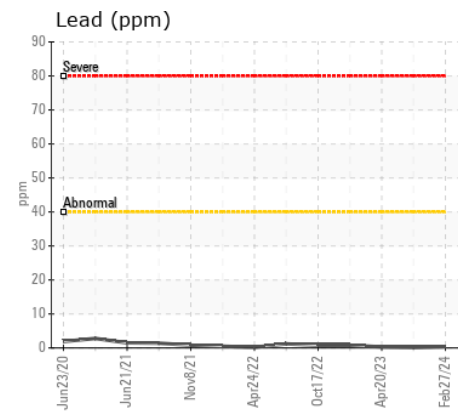
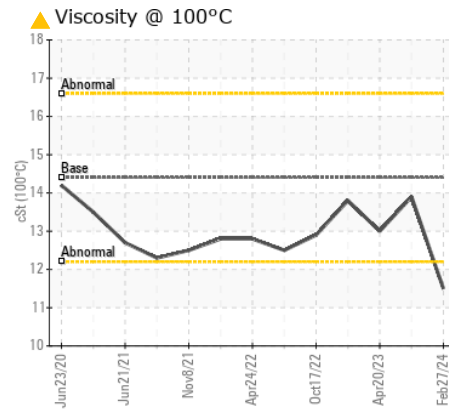
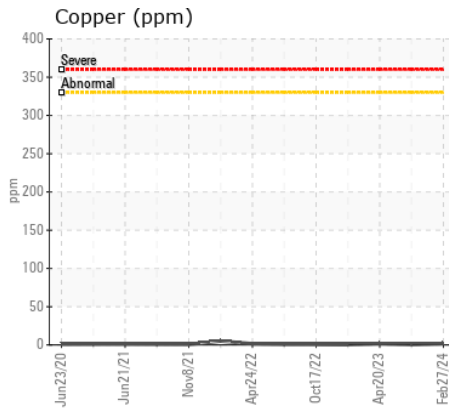
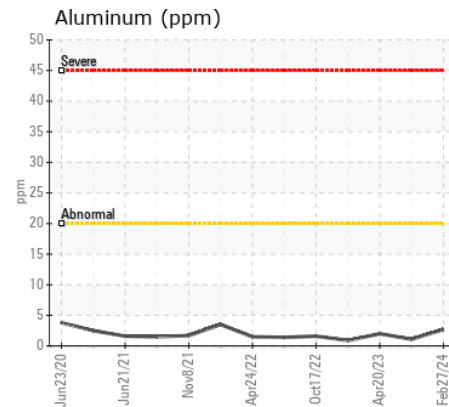
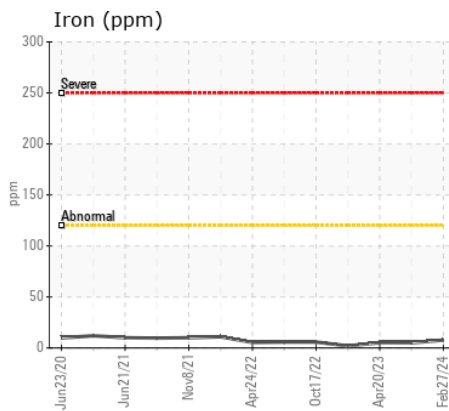
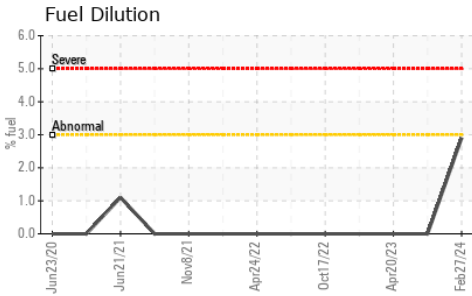
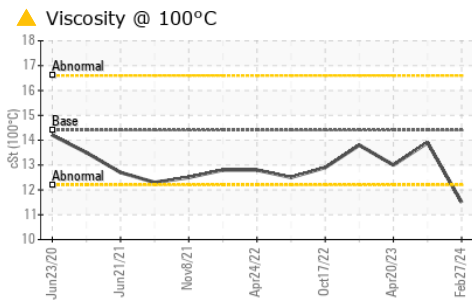
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	3	2
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	5	<1
Fuel	%	ASTM D7593*	>3.0	<b>2.9</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>0.3</b>	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.2</b>	8.0	7.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.0</b>	21.7	18.7
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>158	<b>2</b>	5	4
Boron	ppm	ASTM D5185(m)	250	<b>33</b>	96	3
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>38</b>	2	57
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>471</b>	28	934
Calcium	ppm	ASTM D5185(m)	3000	<b>1630</b>	2159	1105
Phosphorus	ppm	ASTM D5185(m)	1150	<b>726</b>	898	1051
Zinc	ppm	ASTM D5185(m)	1350	<b>862</b>	1128	1171
Sulfur	ppm	ASTM D5185(m)	4250	<b>2115</b>	2698	2524
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.6</b>	16.9	14.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>▲ 11.5</b>	13.9	13.0



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113252  
**Lab Number** : 02618578  
**Unique Number** : 5735688  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 246 - Windsor**  
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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.