



Machine Id  
**727006**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0113221</b>	GFL0102897	GFL0097325
Sample Date		Client Info		<b>18 Jun 2024</b>	15 Mar 2024	14 Dec 2023
Machine Age	hrs	Client Info		<b>0</b>	19548	0
Oil Age	hrs	Client Info		<b>20165</b>	0	18988
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>7</b>	8	7
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
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)	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>3</b>	<1	1
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

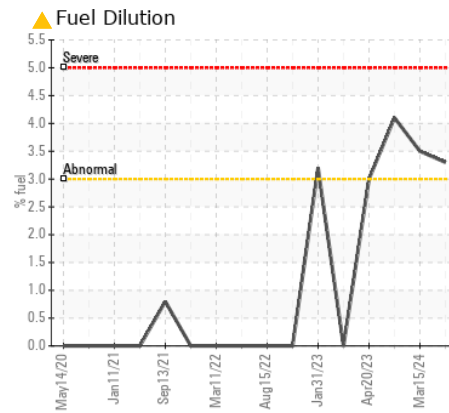
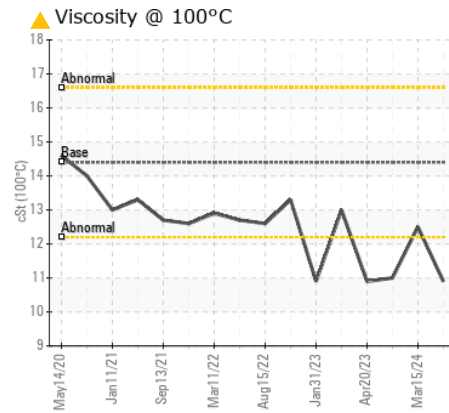
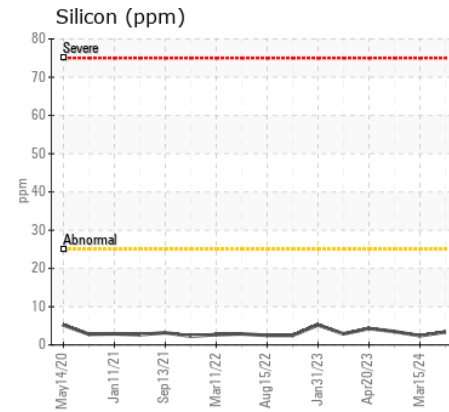
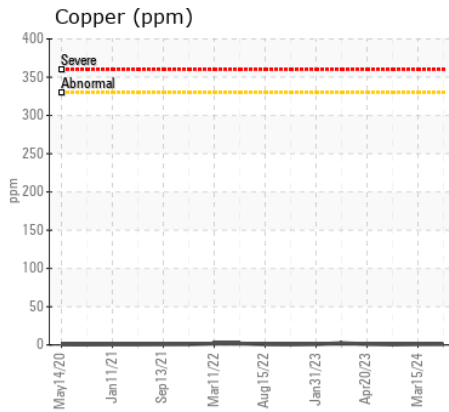
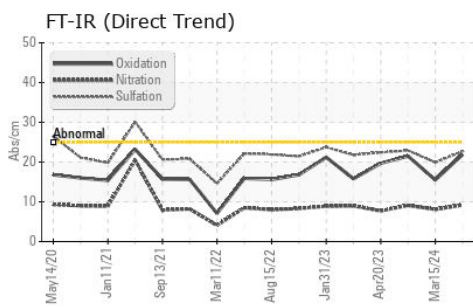
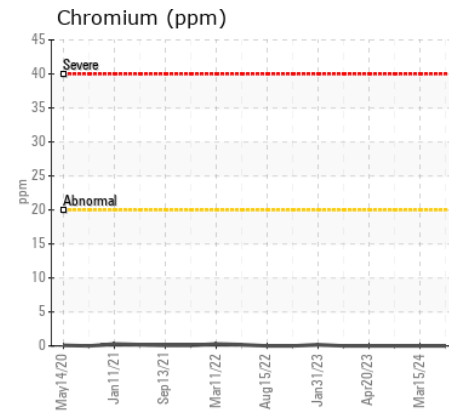
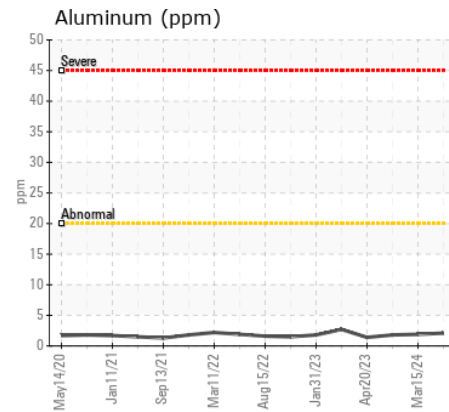
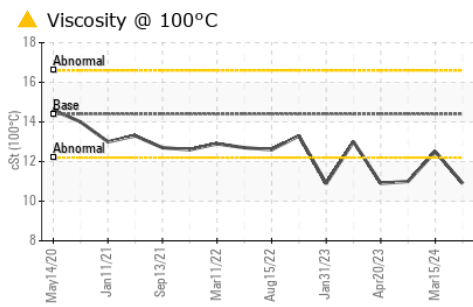
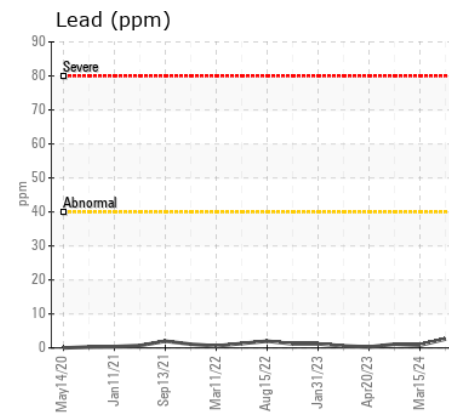
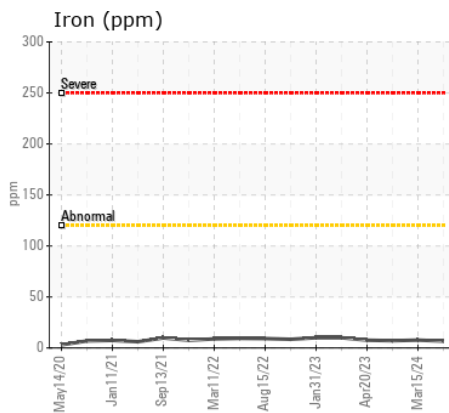
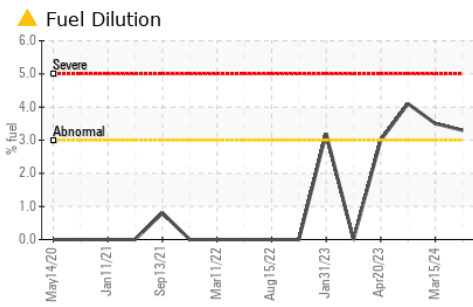
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	2	4
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	<1
Fuel	%	ASTM D7593*	>3.0	<b>▲ 3.3</b>	▲ 3.5	▲ 4.1
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>	0.5	0.6
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.2</b>	8.1	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.7</b>	19.9	22.9
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### 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)	>158	<b>3</b>	3	2
Boron	ppm	ASTM D5185(m)	250	<b>27</b>	6	26
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>41</b>	57	40
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	450	<b>489</b>	851	495
Calcium	ppm	ASTM D5185(m)	3000	<b>1516</b>	1096	1616
Phosphorus	ppm	ASTM D5185(m)	1150	<b>657</b>	913	693
Zinc	ppm	ASTM D5185(m)	1350	<b>834</b>	1080	825
Sulfur	ppm	ASTM D5185(m)	4250	<b>1825</b>	2370	1967
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.9</b>	15.5	21.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>▲ 10.9</b>	12.5	▲ 11.0



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113221  
**Lab Number** : 02643182  
**Unique Number** : 5800721  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )  
**Received** : 20 Jun 2024  
**Tested** : 21 Jun 2024  
**Diagnosed** : 21 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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