



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



Machine Id  
**411005**

Component  
**Diesel Engine**

Fluid  
**CASTROL TECTION EXTRA SAE 15W-40 (42 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0118902</b>	GFL0094405	GFL0086802
Sample Date		Client Info		<b>04 Jul 2024</b>	17 Apr 2024	12 Mar 2024
Machine Age	hrs	Client Info		<b>9733</b>	9226	9175
Oil Age	hrs	Client Info		<b>1200</b>	9226	600
Filter Age	hrs	Client Info		<b>1200</b>	9226	600
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)	>120	<b>7</b>	3	6
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>&lt;1</b>	1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	3	3
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>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

**CONTAMINATION**

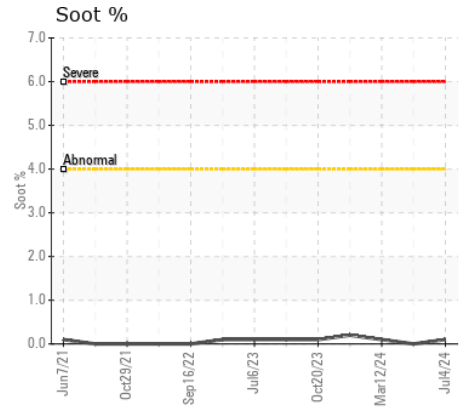
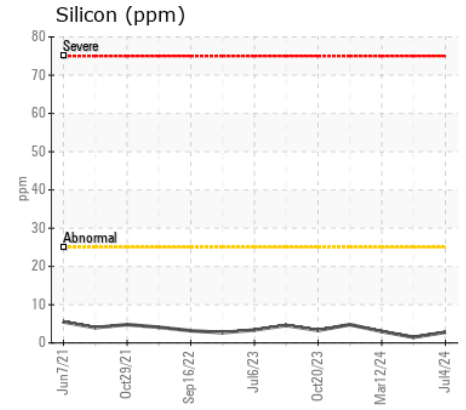
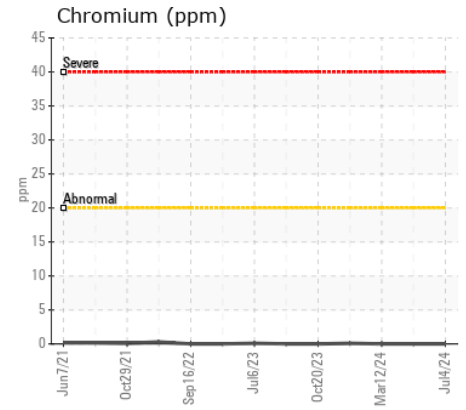
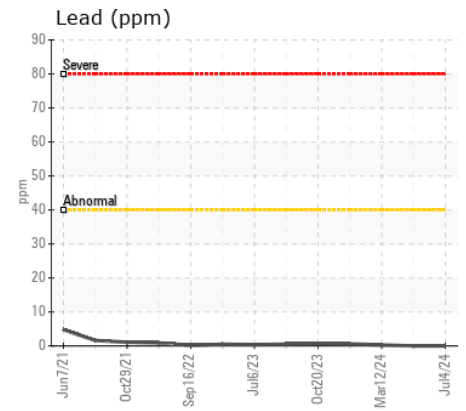
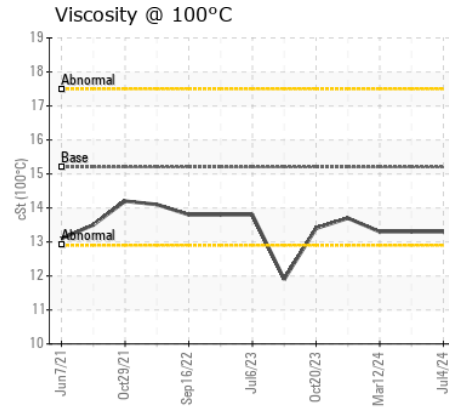
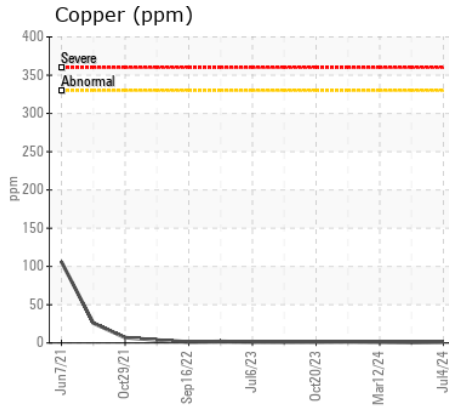
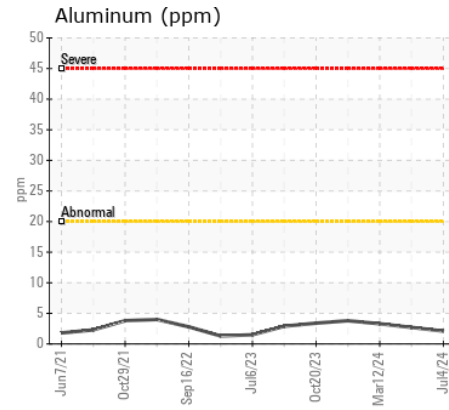
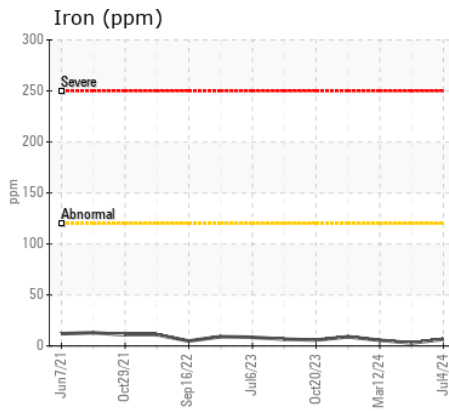
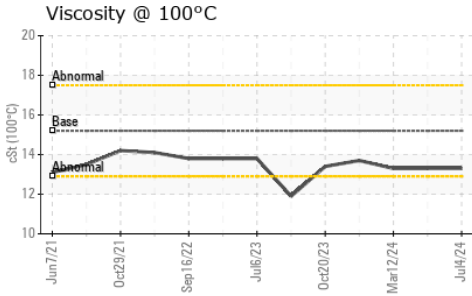
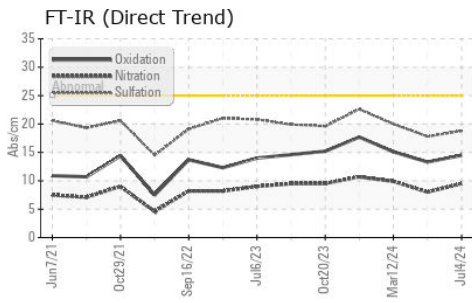
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	1	2
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>0.1</b>	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.5</b>	8.0	9.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.8</b>	17.8	20.0
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)		<b>2</b>	2	2
Boron	ppm	ASTM D5185(m)	30	<b>42</b>	64	41
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>86</b>	85	87
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	110	<b>77</b>	98	78
Calcium	ppm	ASTM D5185(m)	2740	<b>2027</b>	2042	2095
Phosphorus	ppm	ASTM D5185(m)	1240	<b>959</b>	956	1016
Zinc	ppm	ASTM D5185(m)	1350	<b>1151</b>	1108	1138
Sulfur	ppm	ASTM D5185(m)	3520	<b>2925</b>	3009	3172
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.5</b>	13.3	15.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	<b>13.3</b>	13.3	13.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0118902  
**Lab Number** : 02645826  
**Unique Number** : 5803365  
**Test Package** : MOB 1

**GFL Environmental - 222 - Sandhill**  
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD  
 ORANGEVILLE, ON  
 CA L9W 3X5  
 Contact: GLENN COOK  
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 T: (519)940-4167  
 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.