



Machine Id  
**901143**  
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>GFL0094418</b>	GFL0086774	GFL0042861
Sample Date		Client Info		<b>02 Apr 2024</b>	22 Dec 2023	20 Oct 2023
Machine Age	hrs	Client Info		<b>12119</b>	11572	0
Oil Age	hrs	Client Info		<b>700</b>	600	0
Filter Age	hrs	Client Info		<b>700</b>	600	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>10</b>	5	3
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>1</b>	<1	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	4	3
Lead	ppm	ASTM D5185(m)	>40	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

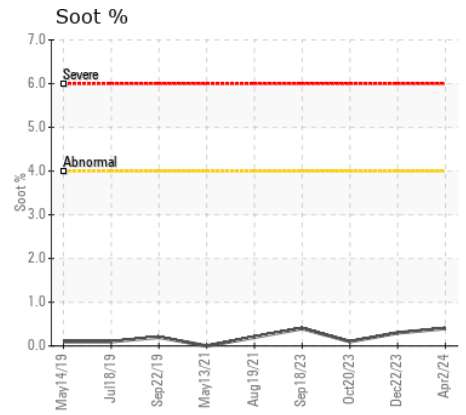
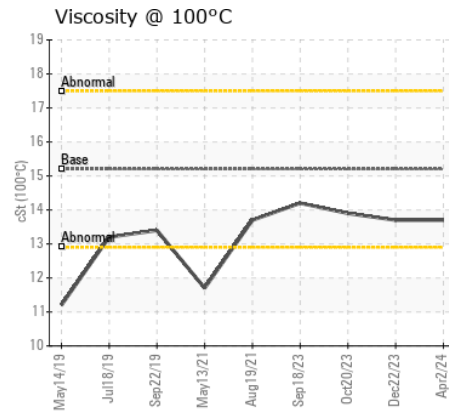
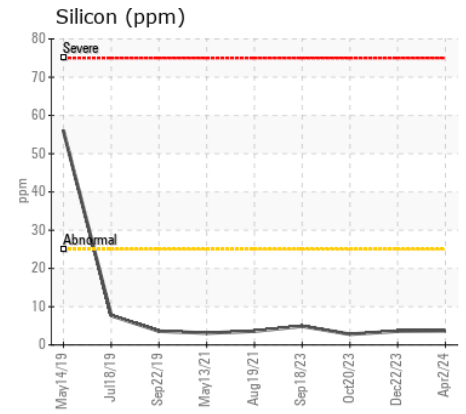
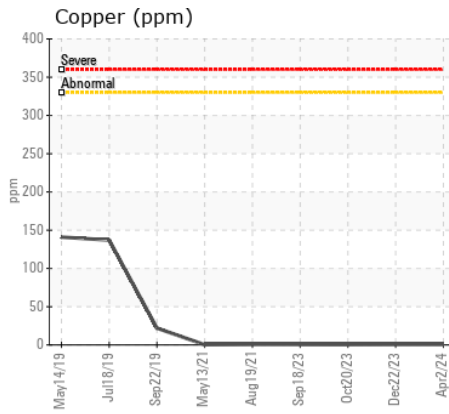
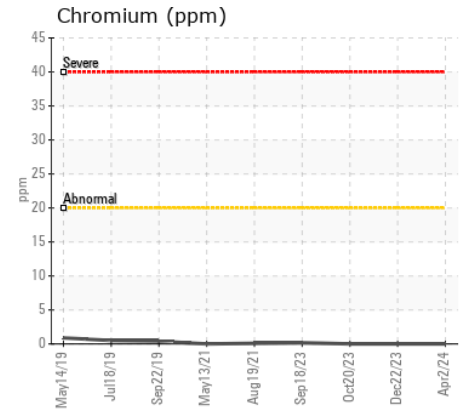
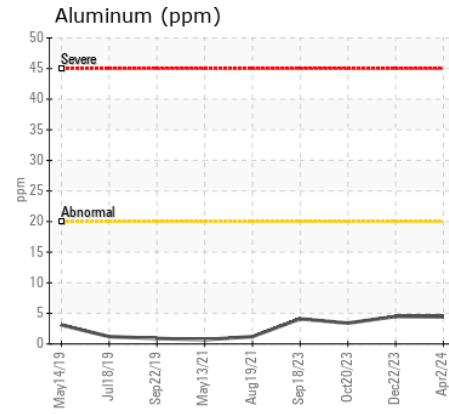
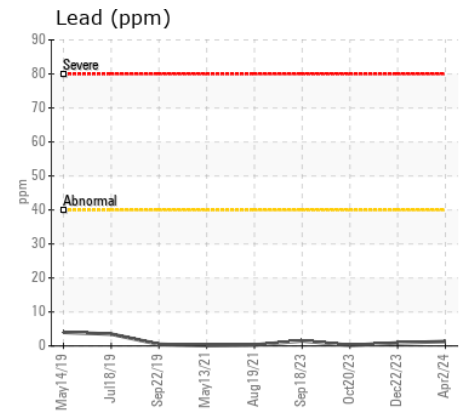
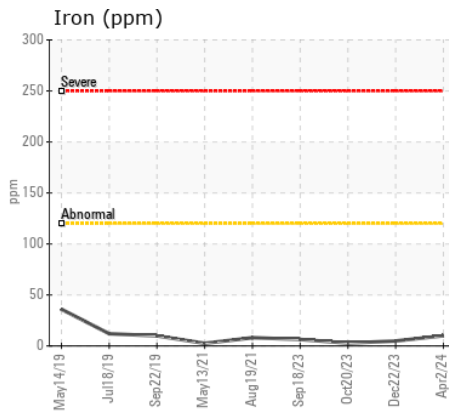
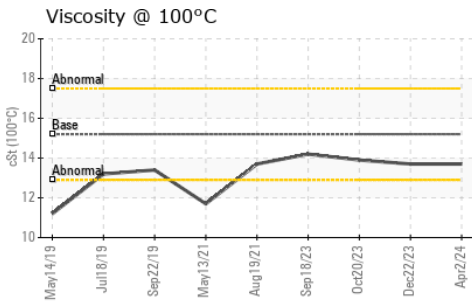
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	<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>0.4</b>	0.3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.5</b>	10.0	8.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.0</b>	20.8	18.8
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>6</b>	4	3
Boron	ppm	ASTM D5185(m)	30	<b>28</b>	33	45
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>88</b>	87	85
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	110	<b>81</b>	71	61
Calcium	ppm	ASTM D5185(m)	2740	<b>2105</b>	2142	2113
Phosphorus	ppm	ASTM D5185(m)	1240	<b>924</b>	934	936
Zinc	ppm	ASTM D5185(m)	1350	<b>1126</b>	1141	1123
Sulfur	ppm	ASTM D5185(m)	3520	<b>2634</b>	2926	2869
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.5</b>	16.3	14.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.2	<b>13.7</b>	13.7	13.9



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0094418 **Received** : 03 Apr 2024  
**Lab Number** : 02626325 **Tested** : 03 Apr 2024  
**Unique Number** : 5759457 **Diagnosed** : 03 Apr 2024 - Wes Davis  
**Test Package** : MOB 1

**GFL Environmental - 222 - Sandhill**  
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD  
 ORANGEVILLE, ON  
 CA L9W 3X5  
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 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.