



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



Machine Id  
**731014**  
Component  
**Natural Gas Engine**  
Fluid  
**CASTROL 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0100774</b>	GFL0100728	GFL0079582
Sample Date		Client Info		<b>05 Jun 2024</b>	28 Dec 2023	12 Jun 2023
Machine Age	kms	Client Info		<b>173450</b>	152288	127369
Oil Age	kms	Client Info		<b>0</b>	0	0
Filter Age	kms	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	<b>12</b>	11	10
Chromium	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>2</b>	3	2
Lead	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	6	1
Copper	ppm	ASTM D5185(m)	>35	<b>1</b>	1	1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

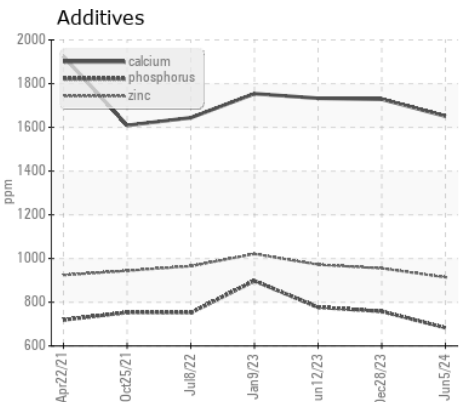
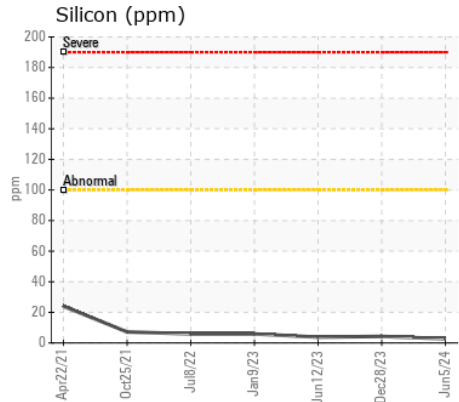
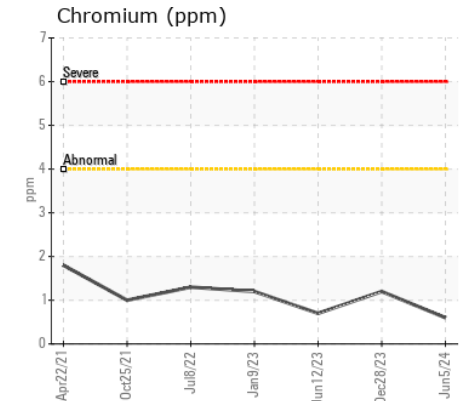
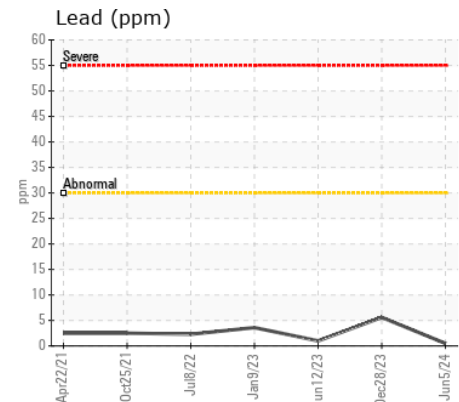
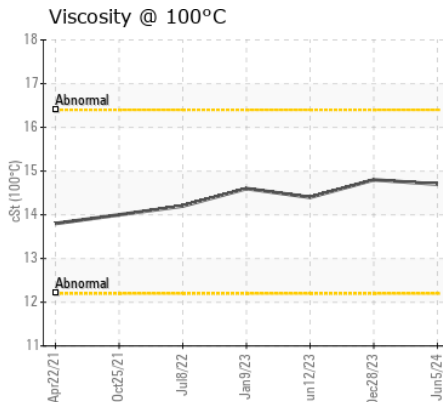
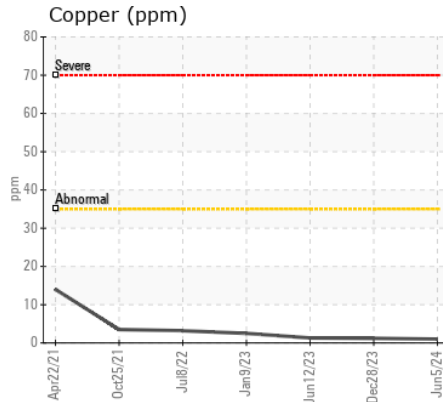
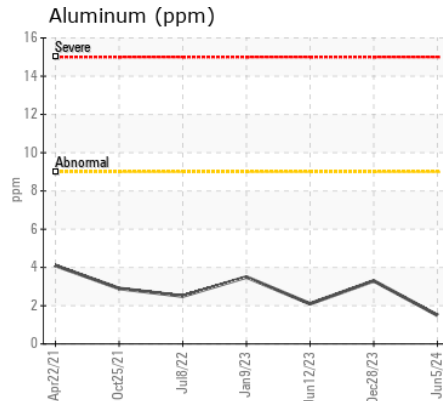
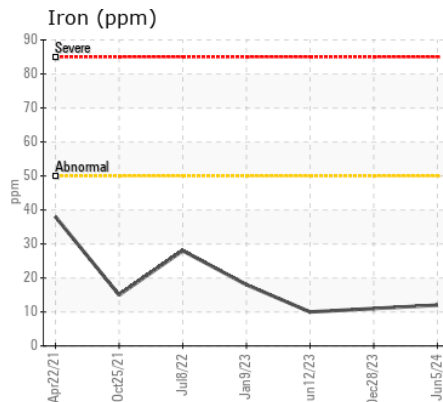
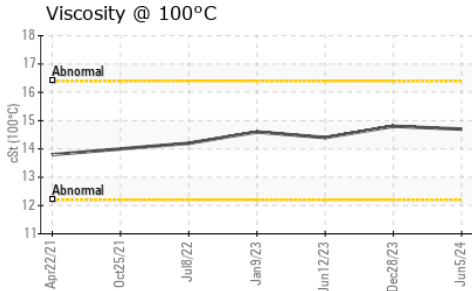
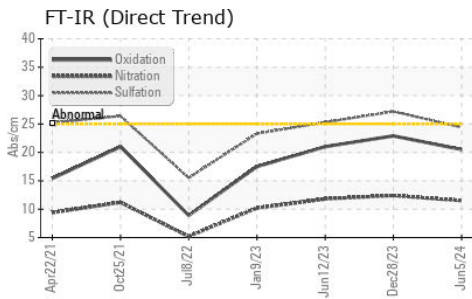
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>+100	<b>3</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	2	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.5</b>	12.4	11.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.4</b>	27.2	25.3
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>406	<b>2</b>	3	2
Boron	ppm	ASTM D5185(m)		<b>6</b>	6	6
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>54</b>	55	57
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>557</b>	587	609
Calcium	ppm	ASTM D5185(m)		<b>1651</b>	1729	1733
Phosphorus	ppm	ASTM D5185(m)		<b>683</b>	758	777
Zinc	ppm	ASTM D5185(m)		<b>914</b>	955	972
Sulfur	ppm	ASTM D5185(m)		<b>1948</b>	2107	2100
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.5</b>	22.9	21.0
Visc @ 100°C	cSt	ASTM D7279(m)		<b>14.7</b>	14.8	14.4



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0100774  
**Lab Number** : 02640637  
**Unique Number** : 5789799  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**Received** : 10 Jun 2024  
**Tested** : 10 Jun 2024  
**Diagnosed** : 10 Jun 2024 - Kevin Marson

**GFL Environmental - 277 - Niagara Regional**  
 C/O Metro Truck Niagara Inc., 411 Glendale Avenue  
 St. Catharines, ON  
 CA L2P 3Y1  
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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.