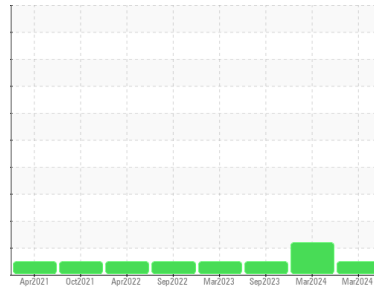




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**731025**  
 Component  
**Natural Gas Engine**  
 Fluid  
**CASTROL 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Test for glycol is negative. There is no indication of any contamination in the oil.

### Fluid Condition

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

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0100733</b>	GFL0100731	GFL0079584
Sample Date	Client Info		<b>28 Mar 2024</b>	22 Mar 2024	15 Sep 2023
Machine Age	kms	Client Info	<b>206705</b>	205754	174188
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	<b>4</b>	18	13
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	2	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>1</b>	2	2
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	7	4
Copper	ppm	ASTM D5185(m)	>35	<b>&lt;1</b>	2	2
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>39</b>	5	4
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>47</b>	61	55
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>528</b>	560	591
Calcium	ppm	ASTM D5185(m)		<b>1500</b>	1749	1609
Phosphorus	ppm	ASTM D5185(m)		<b>707</b>	741	792
Zinc	ppm	ASTM D5185(m)		<b>821</b>	962	944
Sulfur	ppm	ASTM D5185(m)		<b>1952</b>	2004	1990
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	<b>2</b>	3	4
Sodium	ppm	ASTM D5185(m)	>406	<b>4</b>	35	4
Potassium	ppm	ASTM D5185(m)	>20	<b>11</b>	▲ 154	<1
Glycol	%	ASTM D7922*		<b>0.0</b>	0.0	---

## INFRA-RED

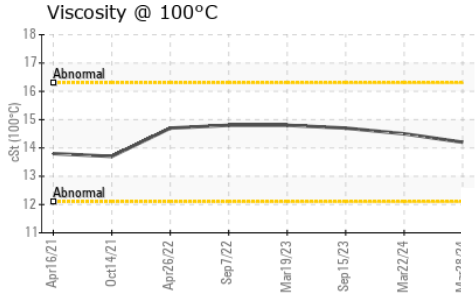
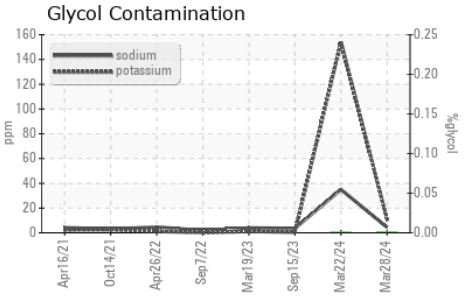
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.6</b>	12.8	11.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.4</b>	26.3	25.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.5</b>	20.9	20.5



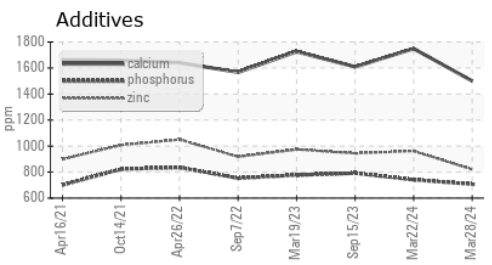
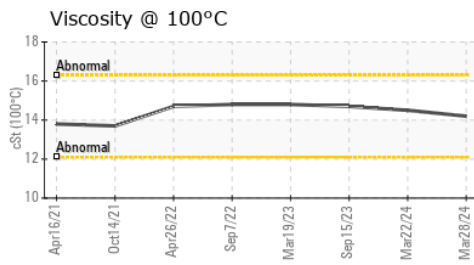
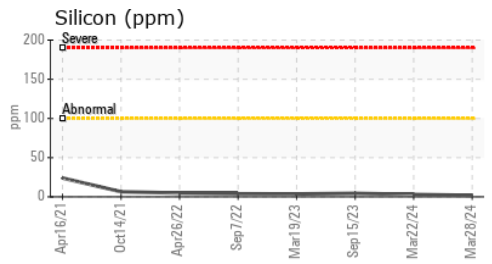
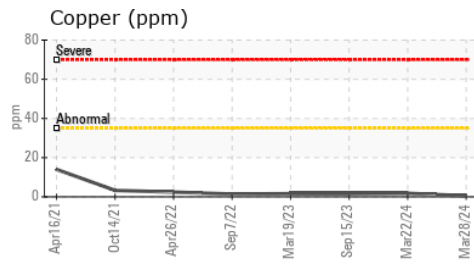
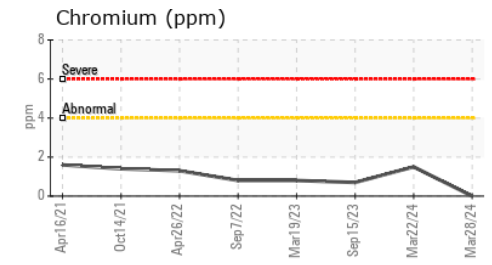
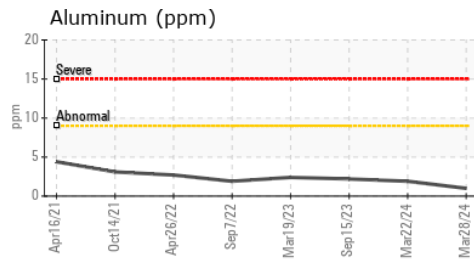
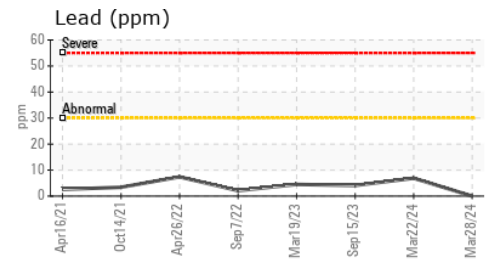
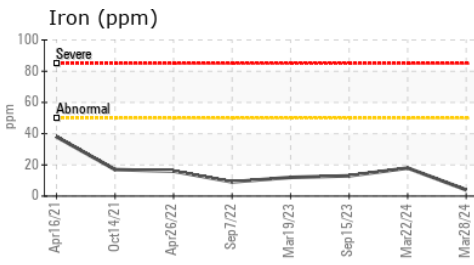
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	VLITE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	VLITE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.2	14.5	14.7

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0100733  
**Lab Number** : 02626405  
**Unique Number** : 5759537  
**Test Package** : MOB 1 ( Additional Tests: Glycol, Visual )  
**Received** : 03 Apr 2024  
**Tested** : 03 Apr 2024  
**Diagnosed** : 04 Apr 2024 - Kevin Marson

**GFL Environmental - 277 - Niagara Regional**  
 C/O Metro Truck Niagara Inc., 411 Glendale Avenue  
 St. Catharines, ON  
 CA L2P 3Y1  
 Contact: Kelly Bremner  
 kbremner@gflenv.com  
 T: (437)235-6849  
 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.