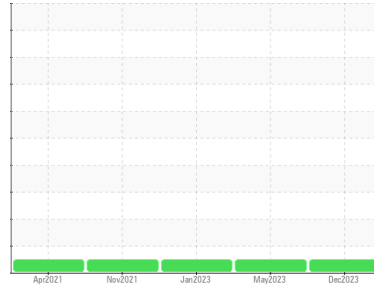




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**731028**  
 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

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>GFL0100717</b>	GFL0079561	GFL0041640
Sample Date	Client Info		<b>21 Dec 2023</b>	16 May 2023	03 Jan 2023
Machine Age	kms	Client Info	<b>149163</b>	130044	116878
Oil Age	kms	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	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>15</b>	9	12
Chromium	ppm	ASTM D5185(m)	>4	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>2</b>	2	3
Lead	ppm	ASTM D5185(m)	>30	<b>6</b>	1	2
Copper	ppm	ASTM D5185(m)	>35	<b>1</b>	<1	1
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	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>6</b>	7	6
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>56</b>	53	58
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>603</b>	550	639
Calcium	ppm	ASTM D5185(m)		<b>1676</b>	1615	1665
Phosphorus	ppm	ASTM D5185(m)		<b>767</b>	706	822
Zinc	ppm	ASTM D5185(m)		<b>973</b>	923	1007
Sulfur	ppm	ASTM D5185(m)		<b>2178</b>	2024	2184
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>4</b>	3	5
Sodium	ppm	ASTM D5185(m)	>406	<b>3</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1

## INFRA-RED

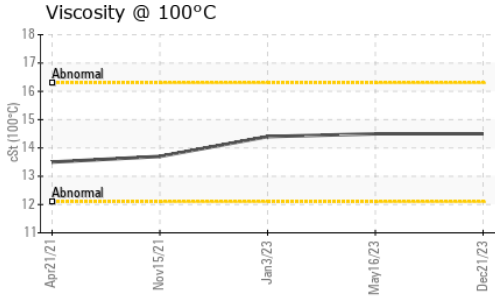
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.1</b>	11.4	6.6
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>26.7</b>	23.1	17.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>21.7</b>	19.0	10.4



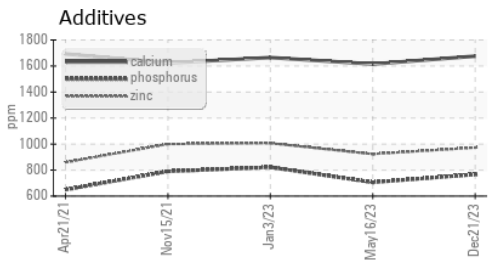
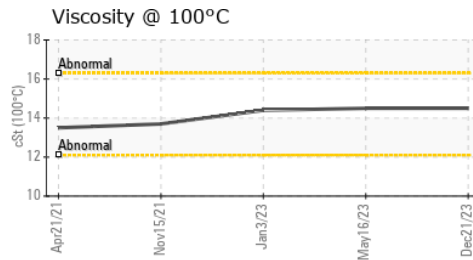
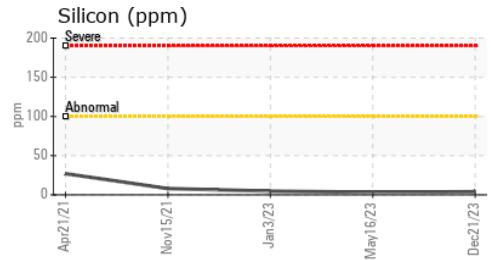
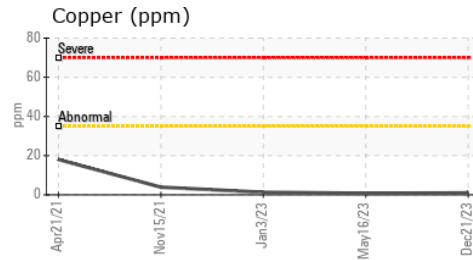
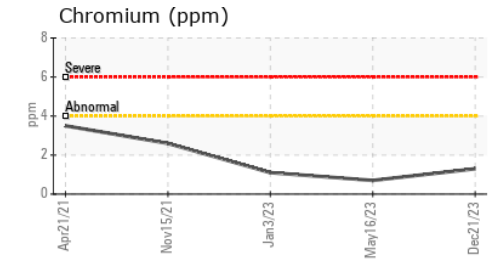
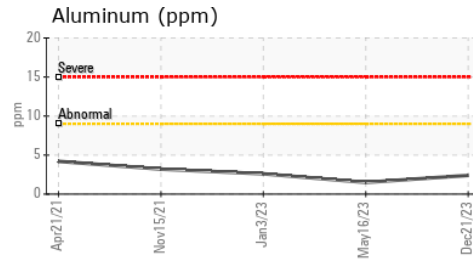
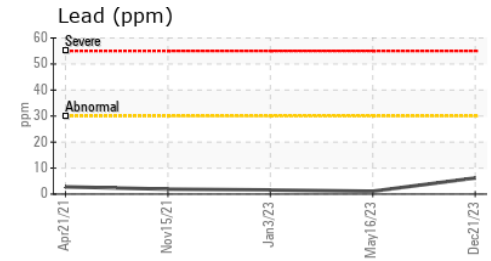
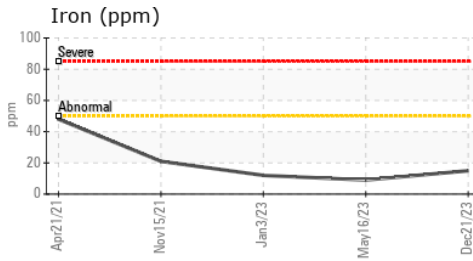
# OIL ANALYSIS REPORT



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	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	<b>14.5</b>	14.5	14.4

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 277 - Niagara Regional**  
**Sample No.** : GFL0100717 **Received** : 28 Dec 2023 **C/O Metro Truck Niagara Inc., 411 Glendale Avenue**  
**Lab Number** : 02605494 **Diagnosed** : 28 Dec 2023 **St. Catharines, ON**  
**Unique Number** : 5698579 **Diagnostician** : Kevin Marson **CA L2P 3Y1**  
**Test Package** : MOB 1 ( Additional Tests: Visual ) **Contact: Kelly Bremner**  
**kbremner@gflenv.com**

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.