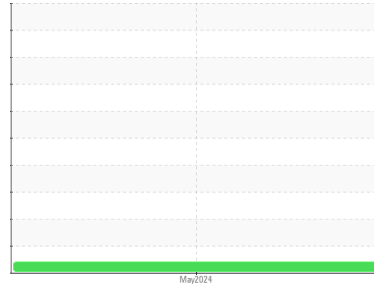




# OIL ANALYSIS REPORT

## Sample Rating Trend



## VISCOSITY



Machine Id

**322004**

Component

**Front Center Gasoline Engine**

Fluid

**CHEVRON DELO 400 XLE 15W40 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

#### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0104666</b>	---	---
Sample Date	Client Info	<b>08 May 2024</b>	---	---
Machine Age	hrs Client Info	<b>7076</b>	---	---
Oil Age	hrs Client Info	<b>7076</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ATTENTION</b>	---	---

### CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	---	---

### WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >150	<b>125</b>	---	---
Chromium	ppm ASTM D5185m >20	<b>5</b>	---	---
Nickel	ppm ASTM D5185m >5	<b>1</b>	---	---
Titanium	ppm ASTM D5185m	<b>2</b>	---	---
Silver	ppm ASTM D5185m >2	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m >40	<b>20</b>	---	---
Lead	ppm ASTM D5185m >50	<b>&lt;1</b>	---	---
Copper	ppm ASTM D5185m >155	<b>13</b>	---	---
Tin	ppm ASTM D5185m >10	<b>1</b>	---	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	---	---

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>31</b>	---	---
Barium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Molybdenum	ppm ASTM D5185m	<b>70</b>	---	---
Manganese	ppm ASTM D5185m	<b>6</b>	---	---
Magnesium	ppm ASTM D5185m	<b>445</b>	---	---
Calcium	ppm ASTM D5185m	<b>1266</b>	---	---
Phosphorus	ppm ASTM D5185m 760	<b>636</b>	---	---
Zinc	ppm ASTM D5185m 830	<b>780</b>	---	---
Sulfur	ppm ASTM D5185m 2770	<b>2925</b>	---	---

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>21</b>	---	---
Sodium	ppm ASTM D5185m >400	<b>21</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>21</b>	---	---
Fuel	% ASTM D3524 >4.0	<b>0.1</b>	---	---
Glycol	% *ASTM D2982	<b>NEG</b>	---	---

### INFRA-RED

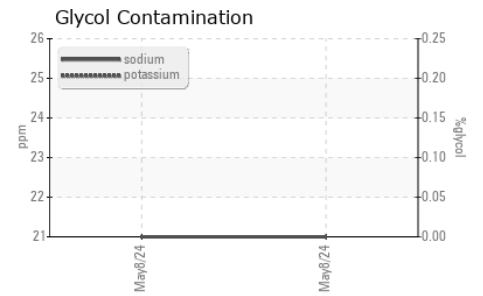
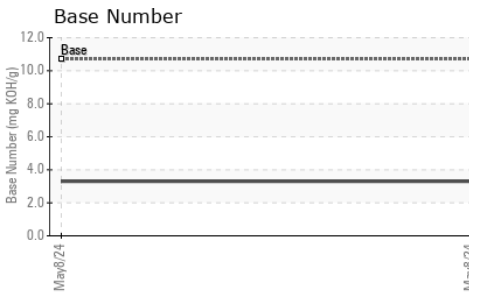
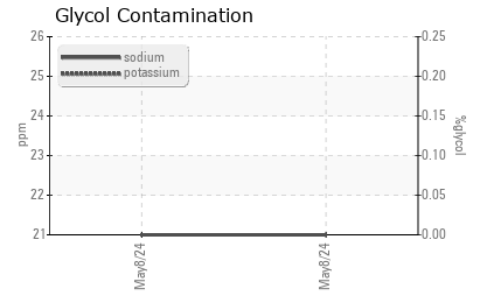
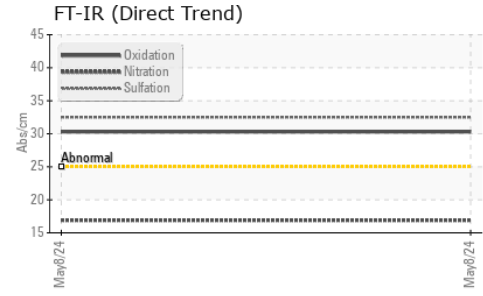
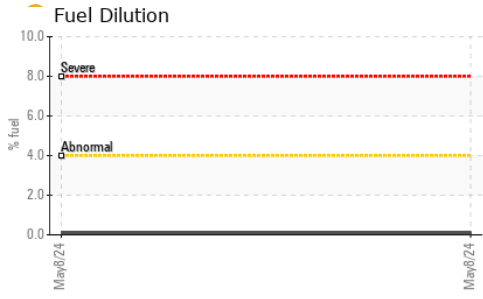
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	<b>0.1</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>16.9</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>32.5</b>	---	---

### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>30.3</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896 10.7	<b>3.3</b>	---	---



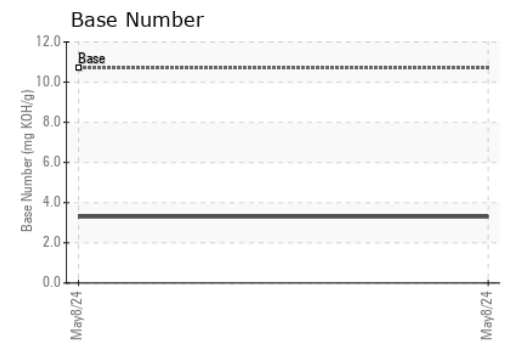
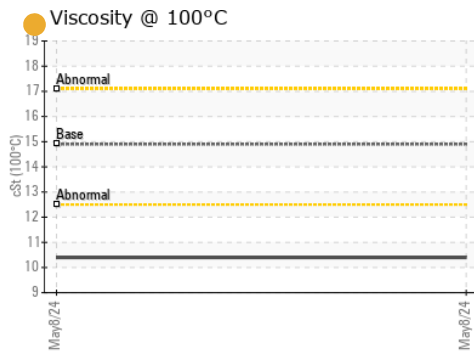
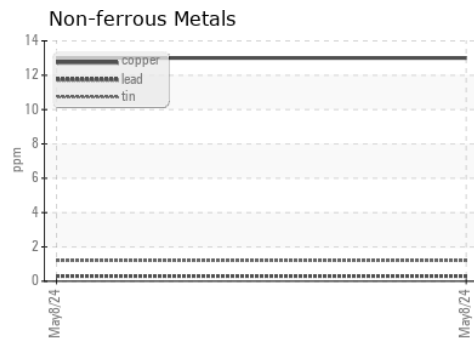
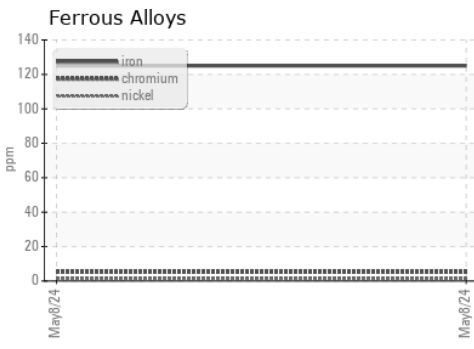
# OIL ANALYSIS REPORT



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	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.9	● 10.4	---	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104666      **Received** : 13 May 2024  
**Lab Number** : 06178215      **Tested** : 17 May 2024  
**Unique Number** : 11029541      **Diagnosed** : 17 May 2024 - Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: FuelDilution, Glycol, PercentFuel )

**GFL Environmental - 624 - Elmira Hauling**  
 10164 M-32  
 Elmira, MI  
 US 49730  
 Contact: ANDY GROBASKI  
 andyg@americanwaste.org  
 T: (989)370-2941  
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)