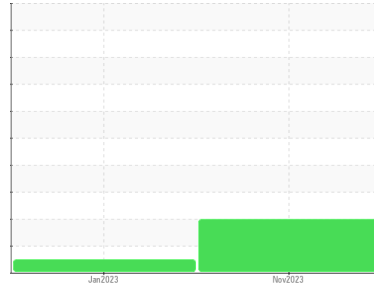




# PROBLEM SUMMARY

Sample Rating Trend



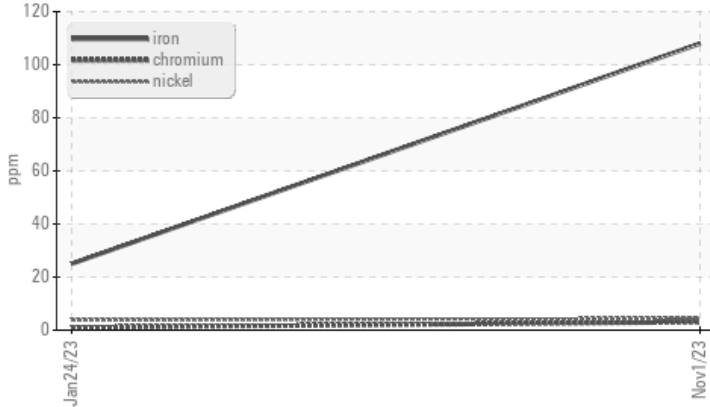
## DEGRADATION



Machine Id  
**912105**  
 Component  
**Diesel Engine**  
 Fluid  
**NOT GIVEN (60 QTS)**

## COMPONENT CONDITION SUMMARY

### ▲ Ferrous Alloys



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	---
Iron	ppm	ASTM D5185m	>120	▲ 108	25	---
Base Number (BN)	mg KOH/g	ASTM D2896		▲ 0.0	5.5	---

Customer Id: GFL005  
 Sample No.: GFL0092656  
 Lab Number: 05998820  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS

24 Jan 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

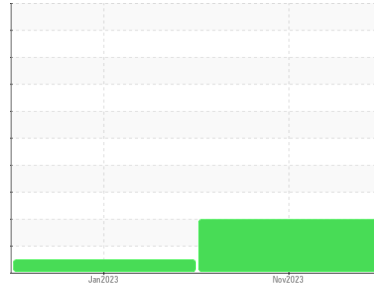




# OIL ANALYSIS REPORT

Sample Rating Trend

DEGRADATION



Machine Id  
**912105**  
 Component  
**Diesel Engine**  
 Fluid  
**NOT GIVEN (60 QTS)**

## DIAGNOSIS

### ▲ Recommendation

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

### ▲ Wear

Cylinder, crank, or cam shaft wear is indicated.

### Contamination

There is no indication of any contamination in the oil.

### ▲ Fluid Condition

The BN level is low. 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>GFL0092656</b>	GFL0072357	---
Sample Date	Client Info		<b>01 Nov 2023</b>	24 Jan 2023	---
Machine Age	hrs	Client Info	<b>2300</b>	2300	---
Oil Age	hrs	Client Info	<b>622</b>	2300	---
Oil Changed	Client Info		<b>Changed</b>	Not Changd	---
Sample Status			<b>ABNORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>▲ 108</b>	25	---
Chromium	ppm	ASTM D5185m >20	<b>3</b>	1	---
Nickel	ppm	ASTM D5185m >15	<b>4</b>	4	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m >20	<b>4</b>	2	---
Lead	ppm	ASTM D5185m >40	<b>8</b>	1	---
Copper	ppm	ASTM D5185m >330	<b>15</b>	16	---
Tin	ppm	ASTM D5185m >15	<b>3</b>	1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>7</b>	3	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>65</b>	60	---
Manganese	ppm	ASTM D5185m	<b>2</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>973</b>	891	---
Calcium	ppm	ASTM D5185m	<b>1229</b>	1067	---
Phosphorus	ppm	ASTM D5185m	<b>1028</b>	883	---
Zinc	ppm	ASTM D5185m	<b>1365</b>	1135	---
Sulfur	ppm	ASTM D5185m	<b>2325</b>	2534	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>15</b>	5	---
Sodium	ppm	ASTM D5185m	<b>15</b>	6	---
Potassium	ppm	ASTM D5185m >20	<b>4</b>	<1	---

## INFRA-RED

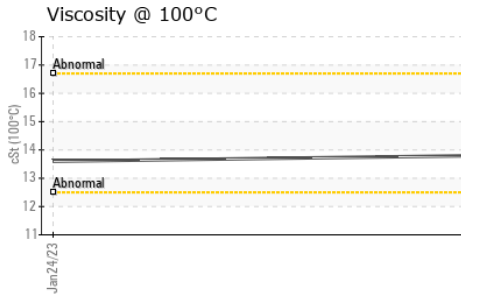
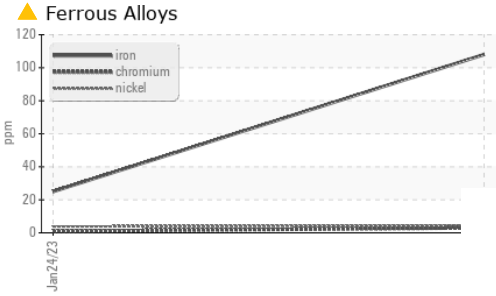
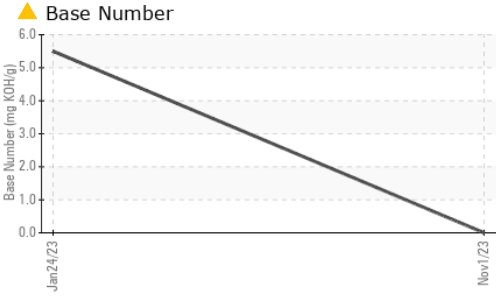
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>2.1</b>	1	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.2</b>	10.5	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.7</b>	22.1	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>21.9</b>	18.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	<b>▲ 0.0</b>	5.5	---



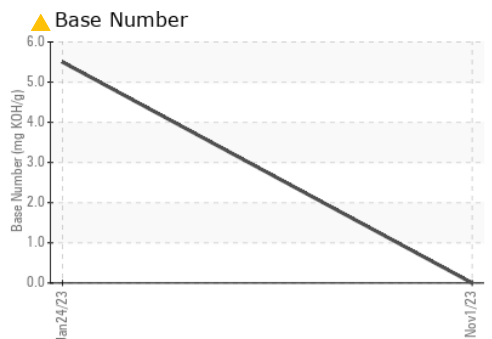
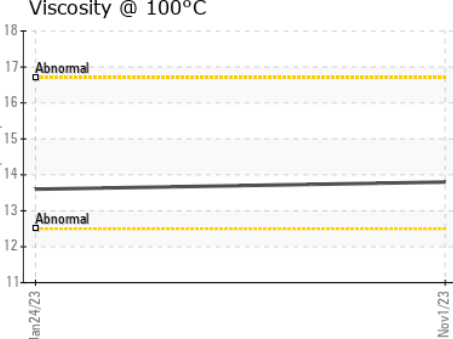
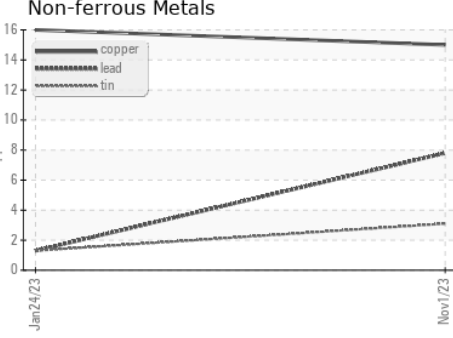
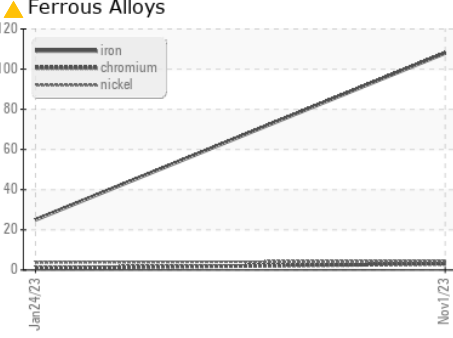
# OIL ANALYSIS REPORT



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	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	13.8	13.6	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092656 **Received** : 06 Nov 2023  
**Lab Number** : 05998820 **Diagnosed** : 08 Nov 2023  
**Unique Number** : 10727180 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET

**GFL Environmental - 005 - Wilson/Tri-East (CNG)**  
 2810 Contentnea Road S  
 Wilson, NC  
 US 27893-8501  
 Contact: SPENCER LIGGON  
 spencer.liggon@gflenv.com  
 T: (800)207-6618  
 F:

Certificate L2367  
 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)