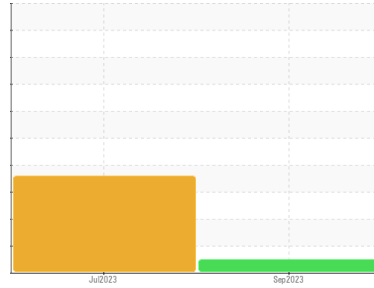




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**812055**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0061543</b>	GFL0083837	---
Sample Date	Client Info		<b>27 Sep 2023</b>	03 Jul 2023	---
Machine Age	hrs	Client Info	<b>3452</b>	2832	---
Oil Age	hrs	Client Info	<b>620</b>	2832	---
Oil Changed	Client Info		<b>N/A</b>	Changed	---
Sample Status			<b>NORMAL</b>	ABNORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<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 >100	<b>55</b>	▲ 226	---
Chromium	ppm	ASTM D5185m >20	<b>2</b>	7	---
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	---
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>18</b>	97	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >330	<b>3</b>	14	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</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 250	<b>4</b>	15	---
Barium	ppm	ASTM D5185m 10	<b>0</b>	2	---
Molybdenum	ppm	ASTM D5185m 100	<b>56</b>	43	---
Manganese	ppm	ASTM D5185m	<b>2</b>	11	---
Magnesium	ppm	ASTM D5185m 450	<b>940</b>	853	---
Calcium	ppm	ASTM D5185m 3000	<b>1089</b>	1413	---
Phosphorus	ppm	ASTM D5185m 1150	<b>1000</b>	794	---
Zinc	ppm	ASTM D5185m 1350	<b>1236</b>	1003	---
Sulfur	ppm	ASTM D5185m 4250	<b>2909</b>	3124	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	▲ 29	---
Sodium	ppm	ASTM D5185m >216	<b>6</b>	8	---
Potassium	ppm	ASTM D5185m >20	<b>32</b>	219	---

## INFRA-RED

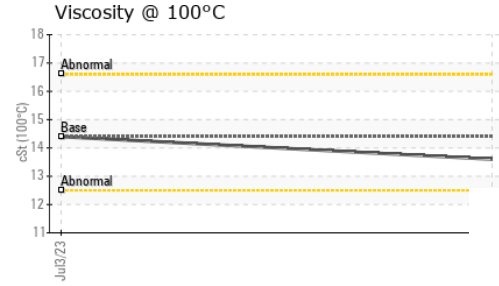
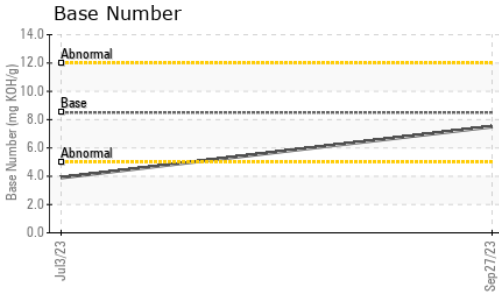
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	1.6	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.4</b>	15.3	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	31.9	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.1</b>	31.7	---
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>7.5</b>	▲ 3.9	---



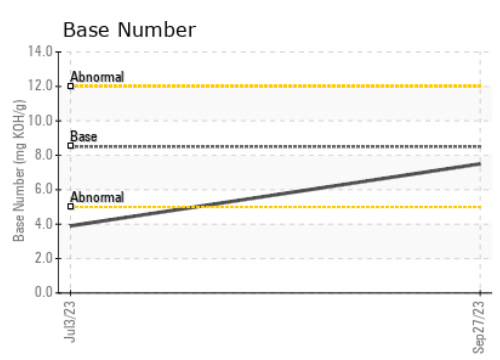
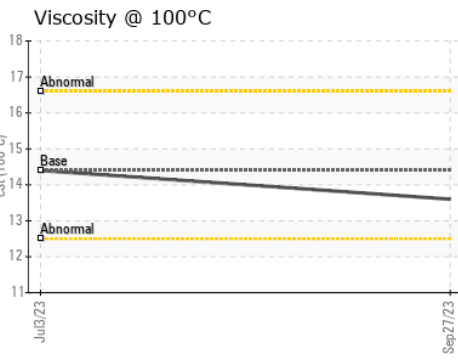
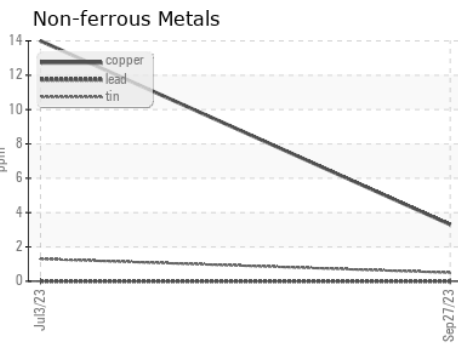
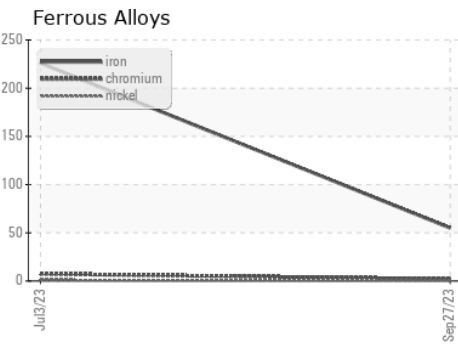
# OIL ANALYSIS REPORT



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	14.4	<b>13.6</b>	14.4	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0061543 **Received** : 02 Oct 2023  
**Lab Number** : **05966017** **Diagnosed** : 02 Oct 2023  
**Unique Number** : 10672568 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 652 - Fredericksburg Hauling**  
 10954 Houser Drive  
 Fredericksburg, VA  
 US 22408  
 Contact: WILLIAM MILO  
 wmilo@gflenv.com  
 T:  
 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)