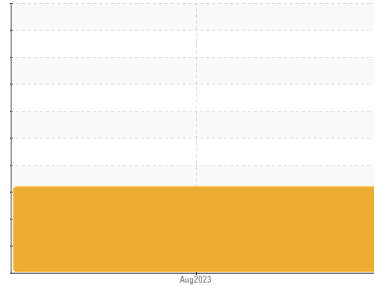




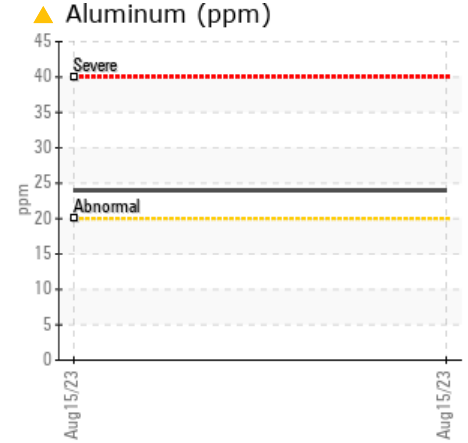
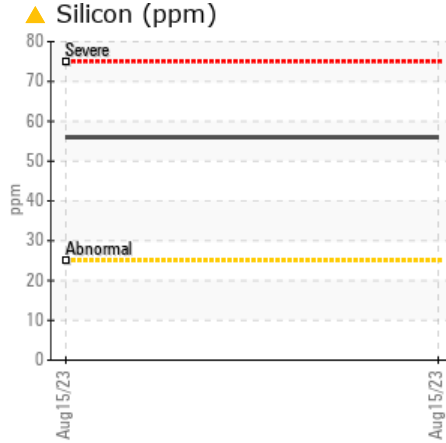
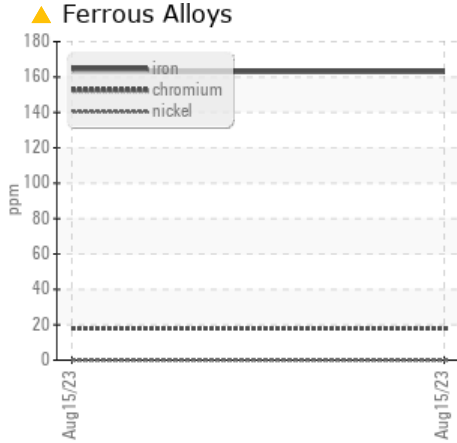
# PROBLEM SUMMARY

Sample Rating Trend



Machine Id  
**FL0308**  
 Component  
**Diesel Engine**  
 Fluid  
**NAPA 10W30 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Propane forklift )

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>100	▲ 163	---	---
Aluminum	ppm	ASTM D5185m	>20	▲ 24	---	---
Silicon	ppm	ASTM D5185m	>25	▲ 56	---	---

Customer Id: GFL411  
 Sample No.: GFL0085623  
 Lab Number: 05931395  
 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

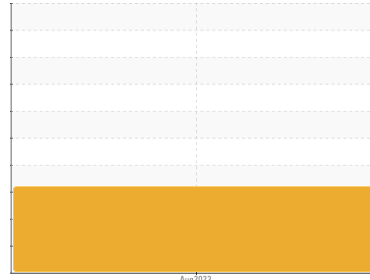
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id  
**FL0308**  
 Component  
**Diesel Engine**  
 Fluid  
**NAPA 10W30 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Propane forklift )

### ▲ Wear

Cylinder, crank, or cam shaft wear is indicated.

### ▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0085623</b>	---	---
Sample Date	Client Info	<b>15 Aug 2023</b>	---	---
Machine Age	hrs Client Info	<b>7223</b>	---	---
Oil Age	hrs Client Info	<b>36</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	---	---
Glycol	WC Method	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>▲ 163</b>	---	---
Chromium	ppm ASTM D5185m >20	<b>18</b>	---	---
Nickel	ppm ASTM D5185m >4	<b>0</b>	---	---
Titanium	ppm ASTM D5185m	<b>4</b>	---	---
Silver	ppm ASTM D5185m >3	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m >20	<b>▲ 24</b>	---	---
Lead	ppm ASTM D5185m >40	<b>3</b>	---	---
Copper	ppm ASTM D5185m >330	<b>6</b>	---	---
Tin	ppm ASTM D5185m >15	<b>2</b>	---	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>187</b>	---	---
Barium	ppm ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m	<b>357</b>	---	---
Manganese	ppm ASTM D5185m	<b>2</b>	---	---
Magnesium	ppm ASTM D5185m	<b>619</b>	---	---
Calcium	ppm ASTM D5185m	<b>1391</b>	---	---
Phosphorus	ppm ASTM D5185m	<b>790</b>	---	---
Zinc	ppm ASTM D5185m	<b>924</b>	---	---
Sulfur	ppm ASTM D5185m	<b>4470</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>▲ 56</b>	---	---
Sodium	ppm ASTM D5185m	<b>10</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>4</b>	---	---

## INFRA-RED

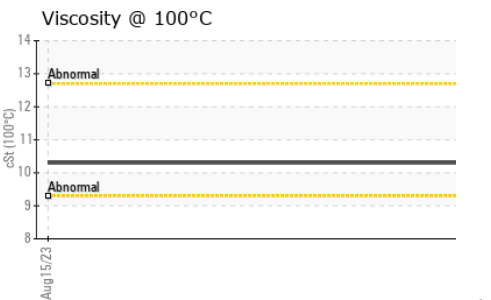
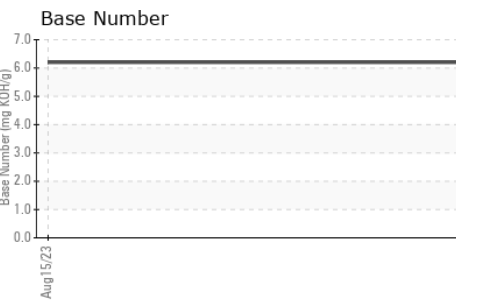
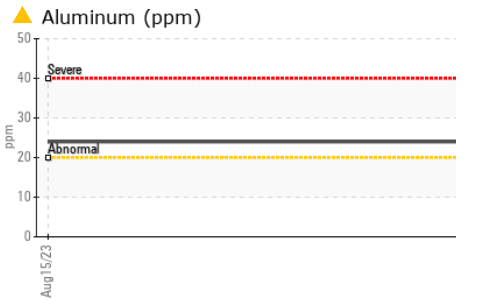
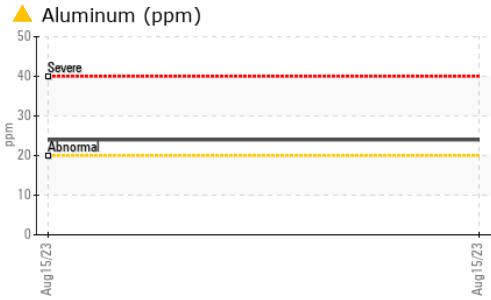
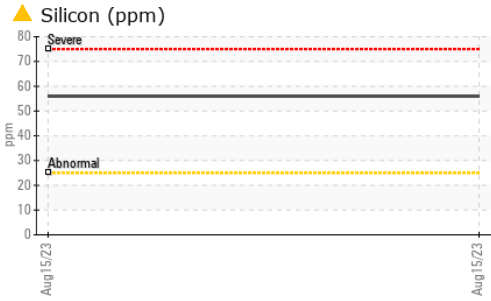
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>6.5</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>16.4</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>9.6</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896	<b>6.2</b>	---	---



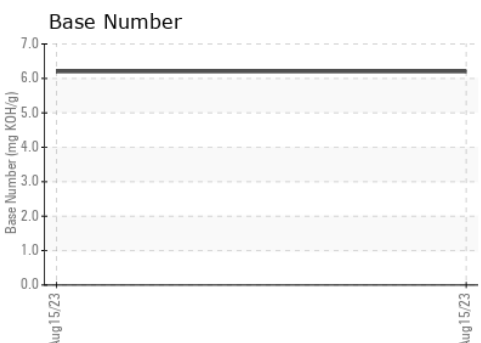
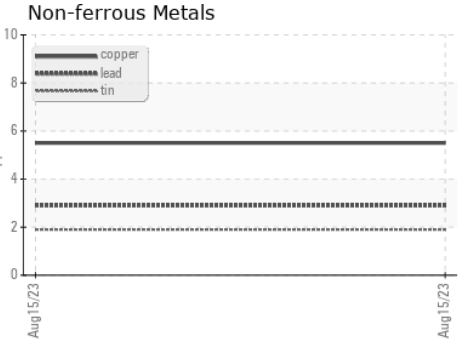
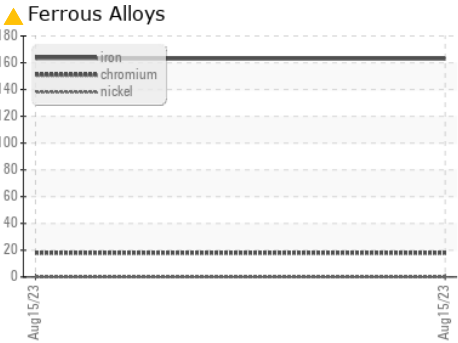
# OIL ANALYSIS REPORT



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	10.3	---	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0085623 **Received** : 22 Aug 2023  
**Lab Number** : 05931395 **Diagnosed** : 24 Aug 2023  
**Unique Number** : 10616666 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET

**GFL Environmental - 411 - Kingsford HC**  
 1001 E Blvd  
 Kingsford, MI  
 US 49802  
 Contact: Service Manager

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)

T:  
F: