

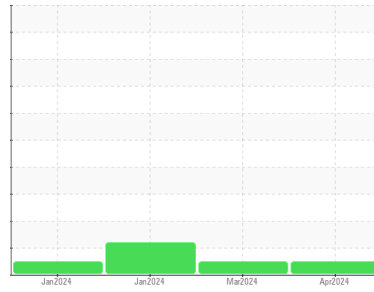


# OIL ANALYSIS REPORT



Machine Id  
**834033**  
 Component  
**Natural Gas Engine**  
 Fluid  
**DIESEL ENGINE OIL (--- GAL)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

Metal levels are typical for a new component breaking in.

### 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>GFL0116576</b>	GFL0111863	GFL0108310
Sample Date	Client Info		<b>04 Apr 2024</b>	07 Mar 2024	24 Jan 2024
Machine Age	hrs	Client Info	<b>870</b>	686	394
Oil Age	hrs	Client Info	<b>870</b>	686	394
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	ABNORMAL

## 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 D5185m >50	<b>45</b>	52	44
Chromium	ppm	ASTM D5185m >4	<b>2</b>	4	2
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	2	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >9	<b>16</b>	18	11
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m >35	<b>13</b>	17	14
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>6</b>	5	10
Barium	ppm	ASTM D5185m	<b>3</b>	0	3
Molybdenum	ppm	ASTM D5185m	<b>60</b>	61	53
Manganese	ppm	ASTM D5185m	<b>11</b>	14	12
Magnesium	ppm	ASTM D5185m	<b>867</b>	790	804
Calcium	ppm	ASTM D5185m	<b>1598</b>	1329	1285
Phosphorus	ppm	ASTM D5185m	<b>813</b>	696	692
Zinc	ppm	ASTM D5185m	<b>1083</b>	947	948
Sulfur	ppm	ASTM D5185m	<b>3197</b>	2409	2459

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>22</b>	29	29
Sodium	ppm	ASTM D5185m >75	<b>4</b>	5	4
Potassium	ppm	ASTM D5185m >20	<b>62</b>	72	▲ 48

## INFRA-RED

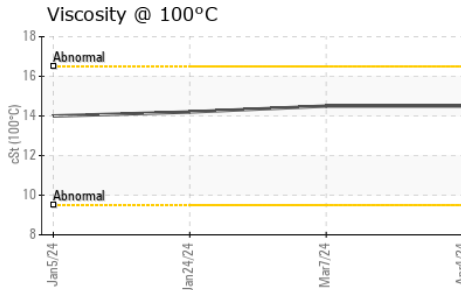
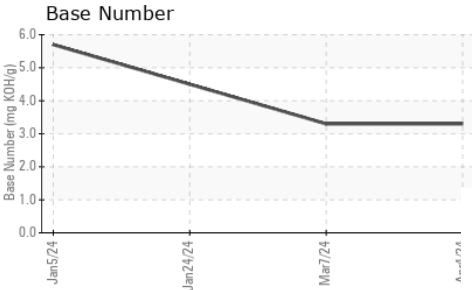
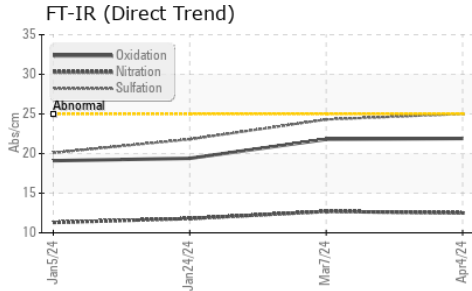
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>12.5</b>	12.7	11.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>25.0</b>	24.3	21.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>21.9</b>	21.8	19.4
Base Number (BN)	mg KOH/g	ASTM D2896	<b>3.3</b>	3.3	4.5



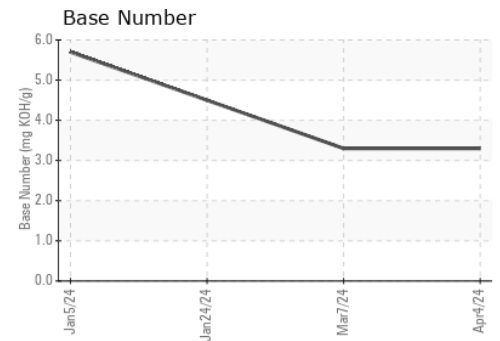
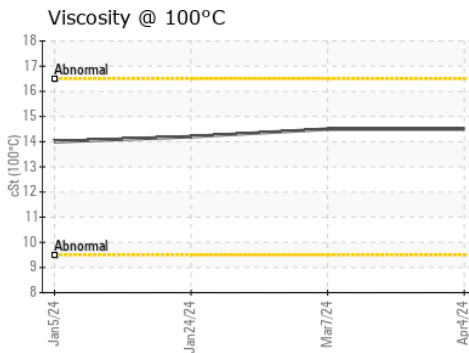
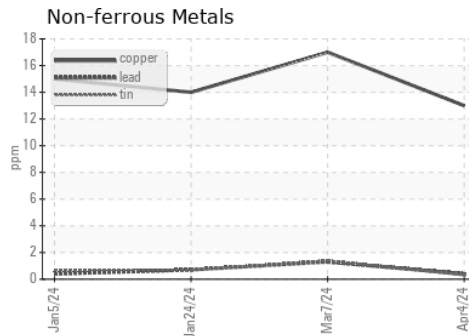
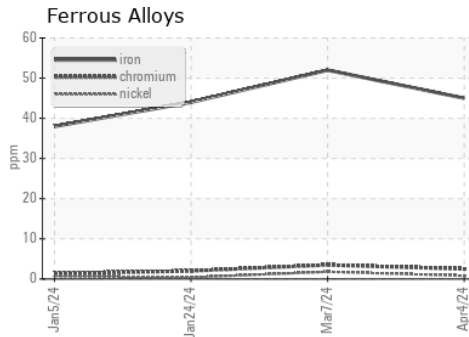
# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.5	14.5	14.2

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116576  
**Lab Number** : 06139683  
**Unique Number** : 10964491  
**Test Package** : FLEET

**Received** : 05 Apr 2024  
**Tested** : 06 Apr 2024  
**Diagnosed** : 06 Apr 2024 - Wes Davis

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

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)

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