

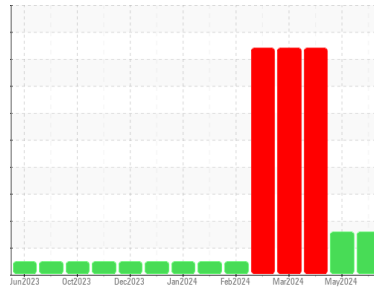


# OIL ANALYSIS REPORT



Area  
**(34744UA)**  
 Machine Id  
**813000**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

Sample Rating Trend



GLYCOL



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

### 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>GFL0122015</b>	GFL0122067	GFL0116573
Sample Date	Client Info		<b>25 Jun 2024</b>	30 May 2024	16 Apr 2024
Machine Age	hrs	Client Info	<b>4368</b>	4190	4036
Oil Age	hrs	Client Info	<b>3927</b>	3903	3863
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status			<b>ATTENTION</b>	ATTENTION	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	0.4	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>15</b>	10	16
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>4</b>	4	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185m >330	<b>4</b>	4	11
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>1</b>	0	14
Barium	ppm	ASTM D5185m 10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 100	<b>13</b>	11	83
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m 450	<b>80</b>	78	839
Calcium	ppm	ASTM D5185m 3000	<b>2297</b>	2118	1086
Phosphorus	ppm	ASTM D5185m 1150	<b>925</b>	931	1027
Zinc	ppm	ASTM D5185m 1350	<b>1117</b>	1069	1126
Sulfur	ppm	ASTM D5185m 4250	<b>3857</b>	3965	3305

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>7</b>	4	5
Sodium	ppm	ASTM D5185m >216	<b>12</b>	6	34
Potassium	ppm	ASTM D5185m >20	<b>60</b>	55	290
Glycol	%	*ASTM D2982	<b>NEG</b>	NEG	0.10

## INFRA-RED

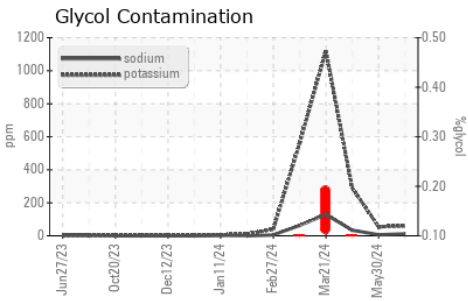
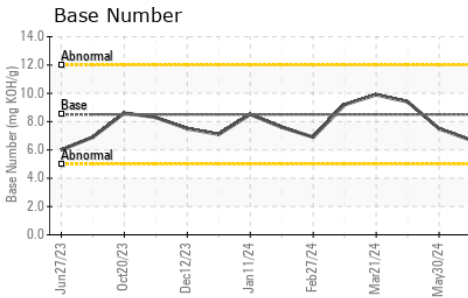
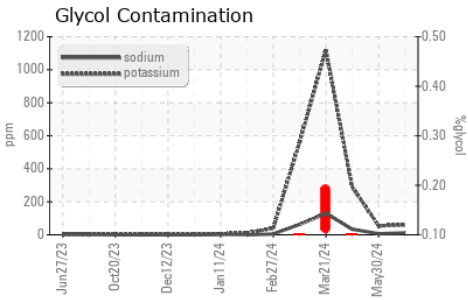
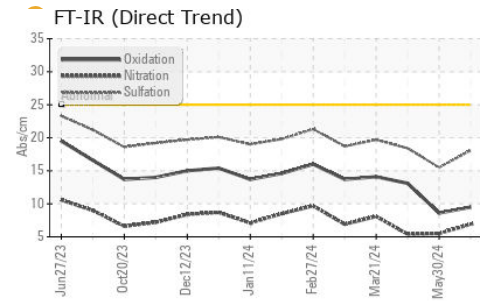
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.7</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.9</b>	5.5	5.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.1</b>	15.5	18.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>9.5</b>	8.6	13.1
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>6.7</b>	7.5	9.4



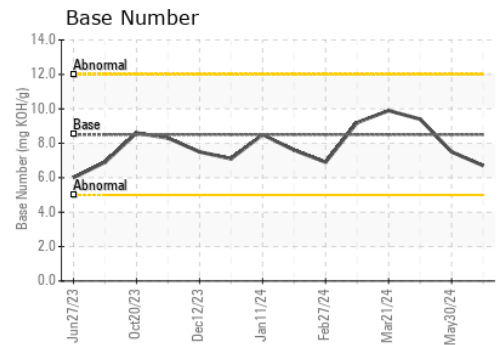
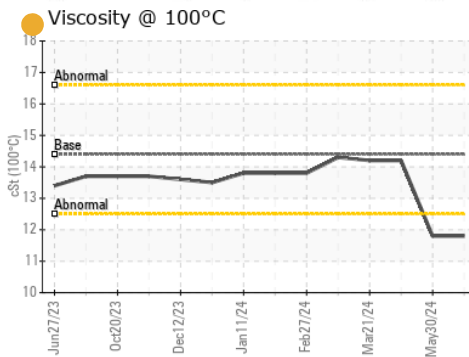
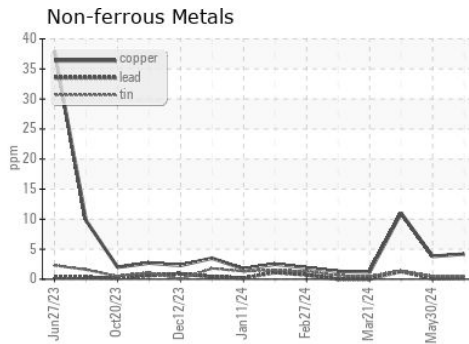
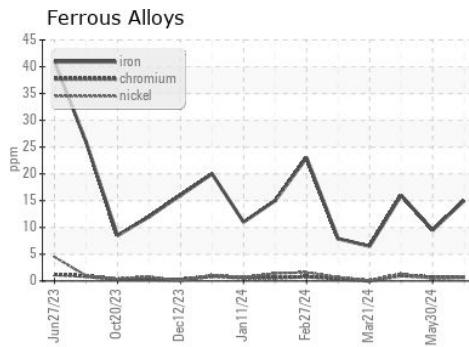
# OIL ANALYSIS REPORT



VISUAL	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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	11.8	11.8

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0122015

Lab Number : 06222180

Unique Number : 11100377

Test Package : FLEET ( Additional Tests: Glycol )

Received : 27 Jun 2024

Tested : 01 Jul 2024

Diagnosed : 01 Jul 2024 - Jonathan Hester

GFL Environmental - 652 - Fredericksburg Hauling

10954 Houser Drive

Fredericksburg, VA

US 22408

Contact: WILLIAM MILO

wmilo@gflenv.com

T:

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)