



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**(48021UA)**  
Machine Id  
**834034**  
Component  
**Natural Gas Engine**  
Fluid  
**NOT GIVEN (--- GAL)**

**RECOMMENDATION**

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0116593</b>	GFL0116537	GFL0108275
Sample Date		Client Info		<b>21 May 2024</b>	02 May 2024	05 Feb 2024
Machine Age	hrs	Client Info		<b>1606</b>	1482	1101
Oil Age	hrs	Client Info		<b>1225</b>	381	1101
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>38</b>	26	26
Chromium	ppm	ASTM D5185m	>4	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>2</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>9	<b>7</b>	4	5
Lead	ppm	ASTM D5185m	>30	<b>2</b>	0	<1
Copper	ppm	ASTM D5185m	>35	<b>10</b>	6	7
Tin	ppm	ASTM D5185m	>4	<b>3</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

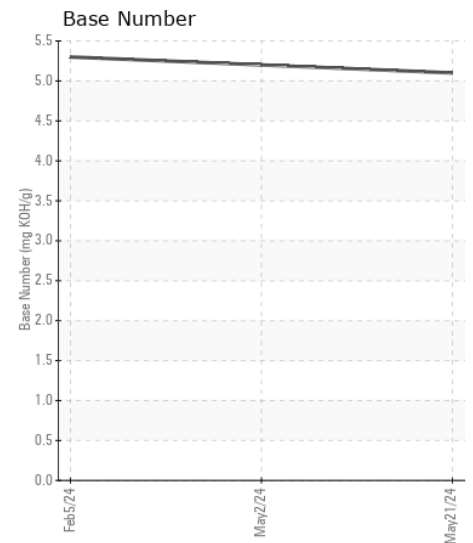
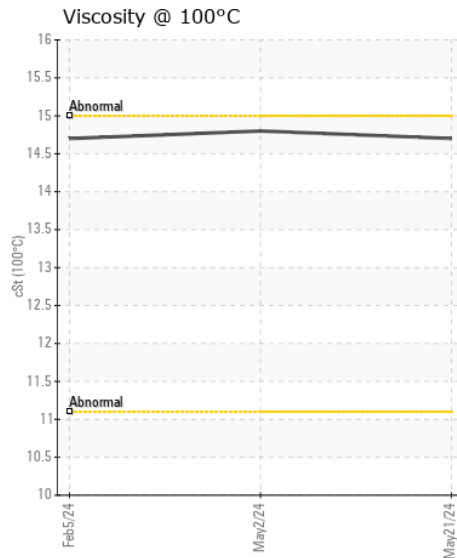
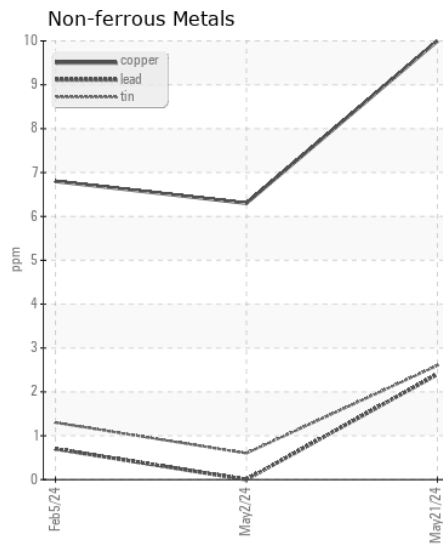
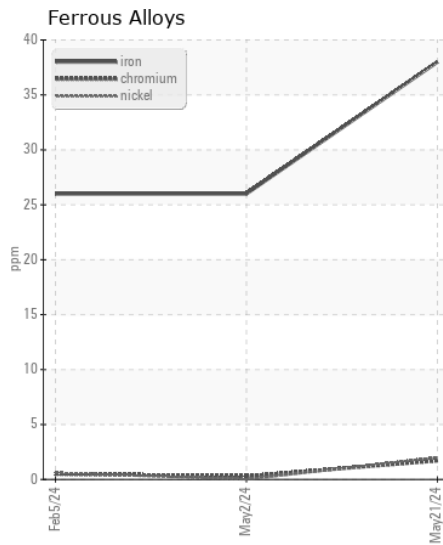
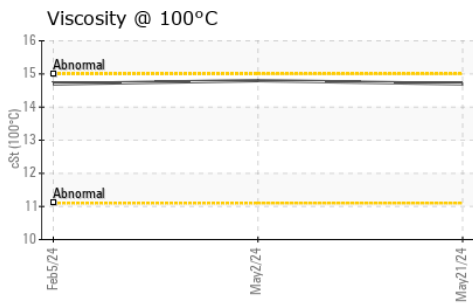
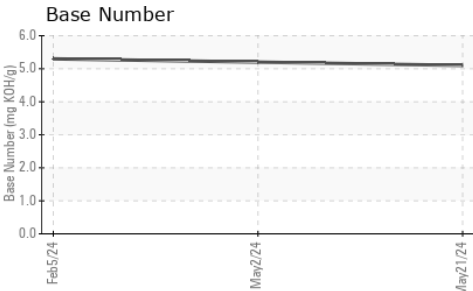
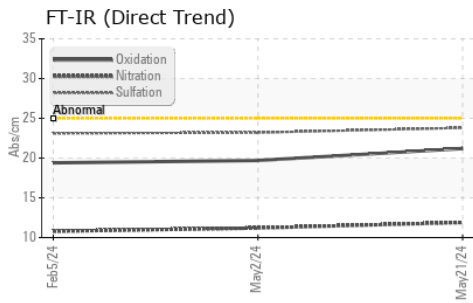
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	<b>17</b>	11	14
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	6	6
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.4</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.9</b>	11.2	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.8</b>	23.2	23.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**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.

Sodium	ppm	ASTM D5185m		<b>7</b>	4	4
Boron	ppm	ASTM D5185m		<b>9</b>	13	17
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>77</b>	56	54
Manganese	ppm	ASTM D5185m		<b>8</b>	6	7
Magnesium	ppm	ASTM D5185m		<b>871</b>	671	698
Calcium	ppm	ASTM D5185m		<b>2061</b>	1496	1343
Phosphorus	ppm	ASTM D5185m		<b>1000</b>	774	771
Zinc	ppm	ASTM D5185m		<b>1353</b>	995	970
Sulfur	ppm	ASTM D5185m		<b>3499</b>	2701	2271
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.2</b>	19.7	19.4
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.1</b>	5.2	5.3
Visc @ 100°C	cSt	ASTM D445		<b>14.7</b>	14.8	14.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116593  
**Lab Number** : 06189908  
**Unique Number** : 11046660  
**Test Package** : FLEET

**Received** : 23 May 2024  
**Tested** : 25 May 2024  
**Diagnosed** : 29 May 2024 - Sean Felton

**GFL Environmental - 652 - Fredericksburg Hauling**  
 10954 Houser Drive  
 Fredericksburg, VA  
 US 22408  
 Contact: WILLIAM MILO  
 wmiло@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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F: