



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



Machine Id  
**834033**  
Component  
**Natural Gas Engine**  
Fluid  
**DIESEL ENGINE OIL (--- 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>GFL0127186</b>	GFL0122083	GFL0116587
Sample Date		Client Info		<b>10 Jul 2024</b>	13 Jun 2024	21 May 2024
Machine Age	hrs	Client Info		<b>1516</b>	1340	1182
Oil Age	hrs	Client Info		<b>176</b>	158	1182
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>8</b>	11	49
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	4
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>9	<b>3</b>	4	20
Lead	ppm	ASTM D5185m	>30	<b>0</b>	0	2
Copper	ppm	ASTM D5185m	>35	<b>2</b>	1	13
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
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.

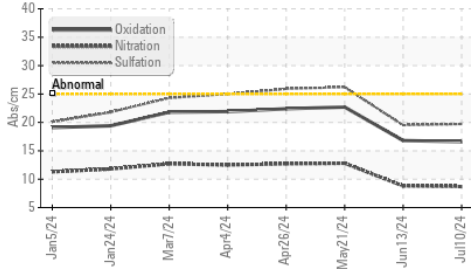
Silicon	ppm	ASTM D5185m	>+100	<b>5</b>	5	19
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	9	69
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	8.8	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.7</b>	19.5	26.2
Silt	scalar	*Visual	NONE	<b>NONE</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**

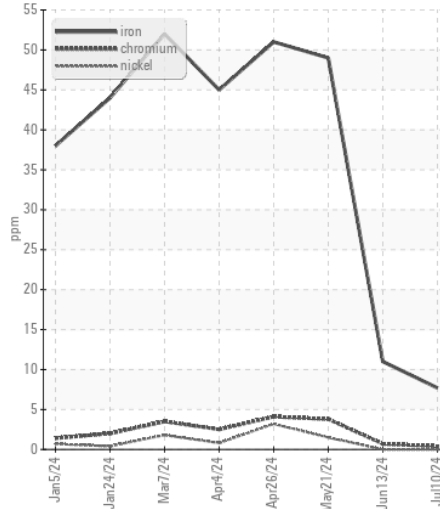
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	<b>2</b>	4	6
Boron	ppm	ASTM D5185m		<b>22</b>	22	4
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>54</b>	52	62
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	11
Magnesium	ppm	ASTM D5185m		<b>574</b>	554	805
Calcium	ppm	ASTM D5185m		<b>1570</b>	1553	1614
Phosphorus	ppm	ASTM D5185m		<b>738</b>	743	790
Zinc	ppm	ASTM D5185m		<b>981</b>	995	1031
Sulfur	ppm	ASTM D5185m		<b>2313</b>	2711	2857
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.6</b>	16.8	22.7
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.1</b>	7.5	3.6
Visc @ 100°C	cSt	ASTM D445		<b>14.9</b>	14.8	14.6

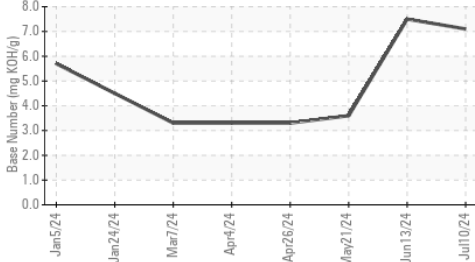
**FT-IR (Direct Trend)**



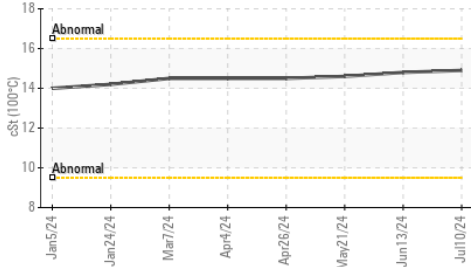
**Ferrous Alloys**



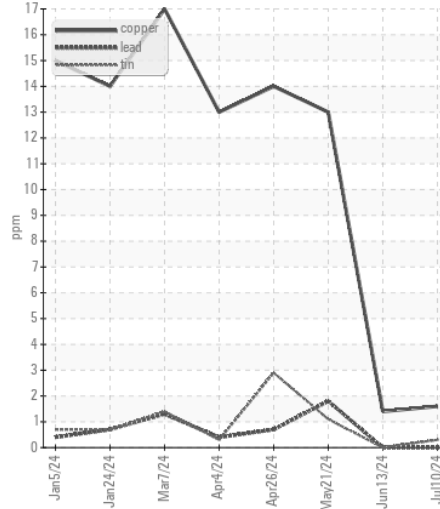
**Base Number**



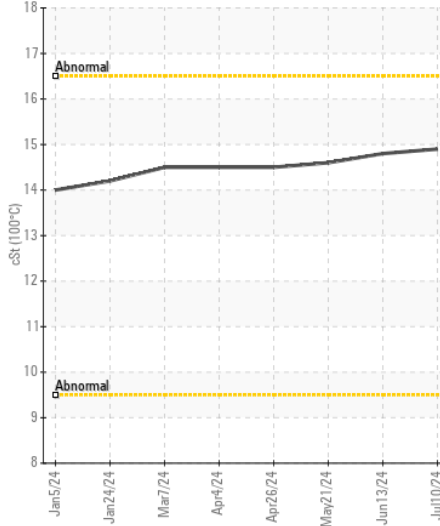
**Viscosity @ 100°C**



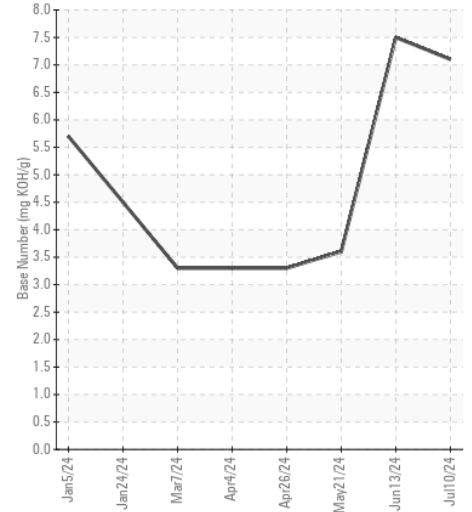
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0127186  
**Lab Number** : 06235553  
**Unique Number** : 11124387  
**Test Package** : FLEET

**Received** : 15 Jul 2024  
**Tested** : 15 Jul 2024  
**Diagnosed** : 15 Jul 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)

T:  
F: