



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



Area  
**(P858111)**  
Machine Id  
**713011**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 40 (--- 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>GFL0096974</b>	GFL0096909	GFL0050907
Sample Date		Client Info		<b>12 Apr 2024</b>	29 Jan 2024	01 Nov 2023
Machine Age	hrs	Client Info		<b>3448</b>	2321	2321
Oil Age	hrs	Client Info		<b>2321</b>	0	1720
Filter Age	hrs	Client Info		<b>2321</b>	0	1720
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>11</b>	<1	15
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	0	4
Tin	ppm	ASTM D5185m	>15	<b>2</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**

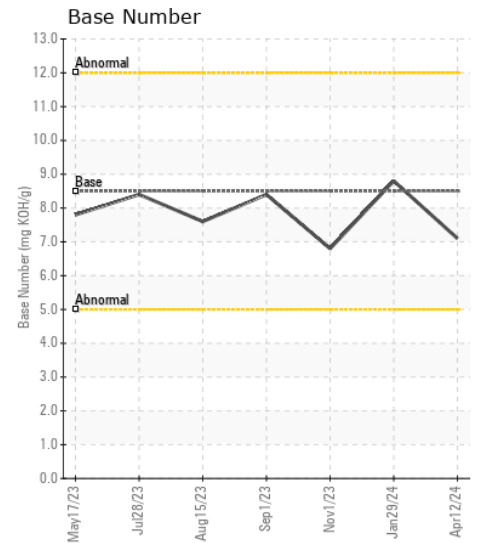
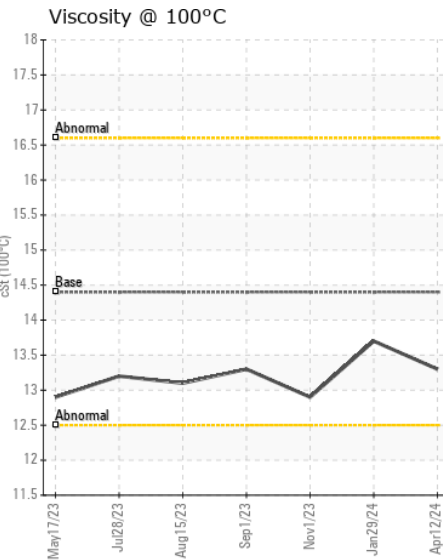
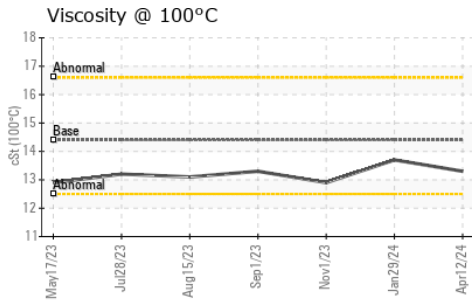
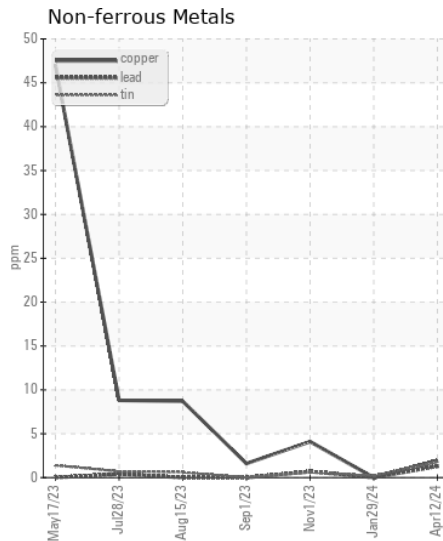
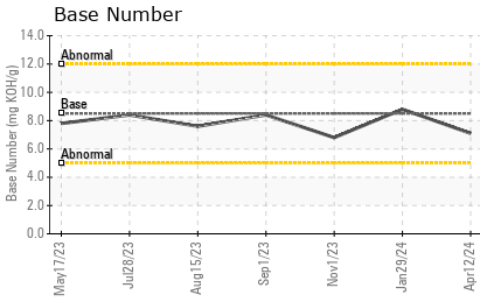
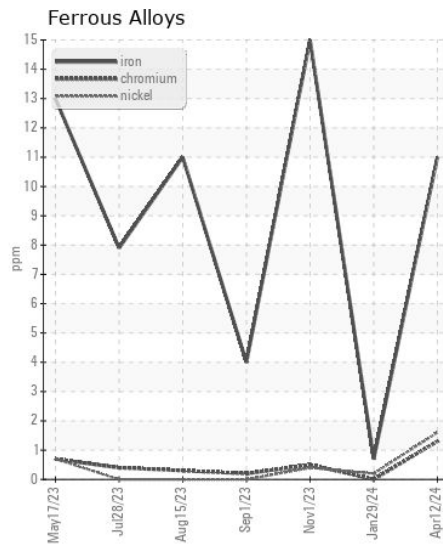
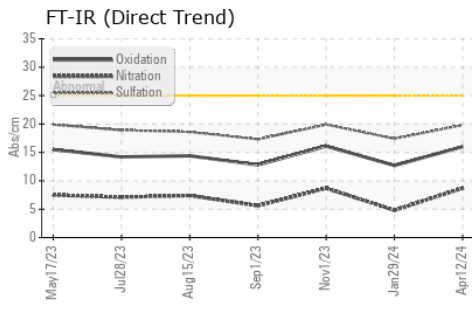
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	2	4
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	<1	9
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.3</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	4.8	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.8</b>	17.4	19.9
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	>0.2	<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	>216	<b>2</b>	0	2
Boron	ppm	ASTM D5185m	250	<b>8</b>	10	7
Barium	ppm	ASTM D5185m	10	<b>&lt;1</b>	<1	<1
Molybdenum	ppm	ASTM D5185m	100	<b>65</b>	57	66
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>930</b>	865	907
Calcium	ppm	ASTM D5185m	3000	<b>1141</b>	972	1137
Phosphorus	ppm	ASTM D5185m	1150	<b>1120</b>	970	981
Zinc	ppm	ASTM D5185m	1350	<b>1263</b>	1160	1206
Sulfur	ppm	ASTM D5185m	4250	<b>3472</b>	2878	2856
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	12.7	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.1</b>	8.8	6.8
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	13.7	12.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0096974  
**Lab Number** : 06152578  
**Unique Number** : 10982656  
**Test Package** : FLEET

**Received** : 17 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Wes Davis

**GFL Environmental - 031 - Greenville/Spartanburg**  
 1635 Antioch Church Rd  
 Piedmont, SC  
 US 29673  
 Contact: TECHNICIAN ACCOUNT  
 catherine.anastasio@wearcheck.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: