



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834090
 Component
Natural Gas Engine
 Fluid
{not provided} (--- 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		GFL0098174	GFL0108341	---
Sample Date		Client Info		15 Jan 2024	05 Jan 2024	---
Machine Age	hrs	Client Info		353	180	---
Oil Age	hrs	Client Info		353	180	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	61	30	---
Chromium	ppm	ASTM D5185m	>4	2	<1	---
Nickel	ppm	ASTM D5185m	>2	2	<1	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>9	36	2	---
Lead	ppm	ASTM D5185m	>30	1	<1	---
Copper	ppm	ASTM D5185m	>35	17	15	---
Tin	ppm	ASTM D5185m	>4	1	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

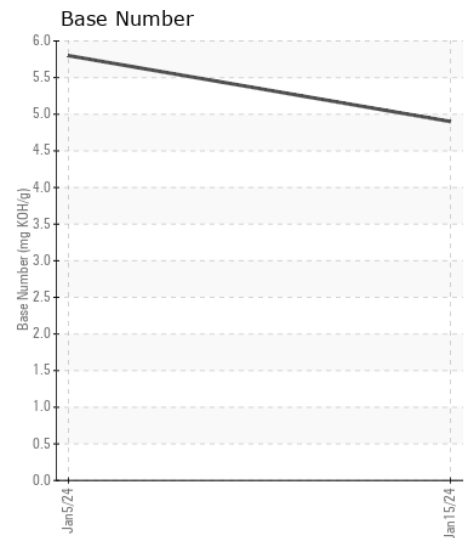
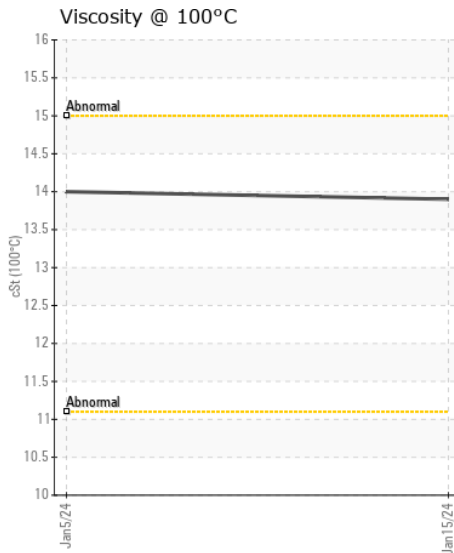
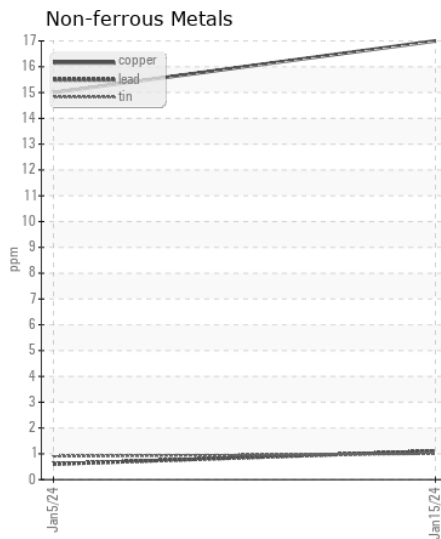
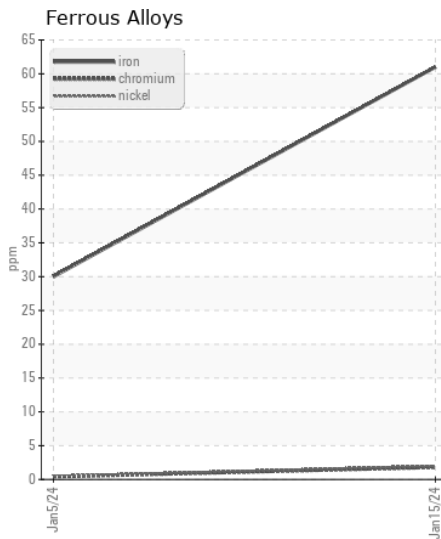
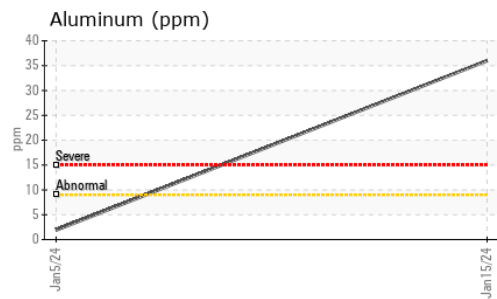
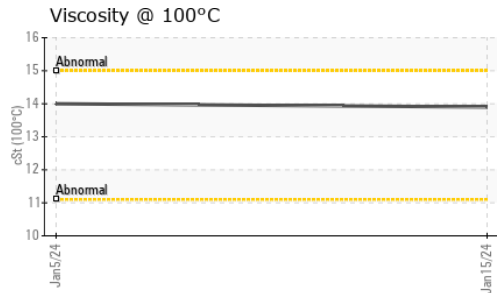
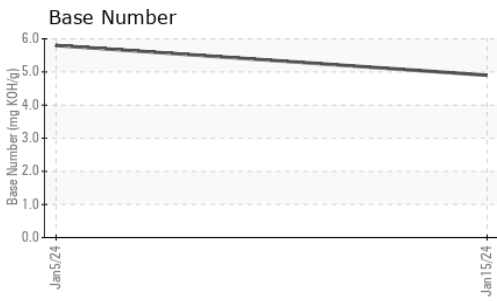
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	33	32	---
Potassium	ppm	ASTM D5185m	>20	119	4	---
Water		WC Method	>0.1	NEG	NEG	---
Soot %	%	*ASTM D7844		0	0	---
Nitration	Abs/cm	*ASTM D7624	>20	11.9	11.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	20.0	---
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	---

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		6	4	---
Boron	ppm	ASTM D5185m		22	14	---
Barium	ppm	ASTM D5185m		<1	4	---
Molybdenum	ppm	ASTM D5185m		55	49	---
Manganese	ppm	ASTM D5185m		13	13	---
Magnesium	ppm	ASTM D5185m		758	768	---
Calcium	ppm	ASTM D5185m		1129	1150	---
Phosphorus	ppm	ASTM D5185m		735	730	---
Zinc	ppm	ASTM D5185m		883	880	---
Sulfur	ppm	ASTM D5185m		2321	2261	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	19.0	---
Base Number (BN)	mg KOH/g	ASTM D2896		4.9	5.8	---
Visc @ 100°C	cSt	ASTM D445		13.9	14.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0098174 **Received** : 17 Jan 2024
Lab Number : 06063341 **Diagnosed** : 18 Jan 2024
Unique Number : 10834723 **Diagnostician** : Wes Davis
Test Package : FLEET

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: