



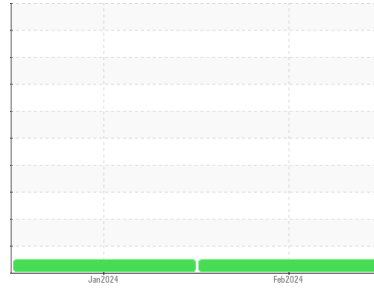
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
934033
Component
Natural Gas Engine
Fluid
{not provided} (--- GAL)



DIAGNOSIS

Recommendation

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

Wear

Metal levels are typical for a new component breaking in.

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.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0108283	GFL0108300	---
Sample Date	Client Info		15 Feb 2024	30 Jan 2024	---
Machine Age	hrs	Client Info	594	449	---
Oil Age	hrs	Client Info	594	449	---
Oil Changed	Client Info		Not Chngd	Not Chngd	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	56	46	---
Chromium	ppm	ASTM D5185m	>4	1	<1	---
Nickel	ppm	ASTM D5185m	>2	2	1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>9	19	17	---
Lead	ppm	ASTM D5185m	>30	<1	<1	---
Copper	ppm	ASTM D5185m	>35	18	20	---
Tin	ppm	ASTM D5185m	>4	2	1	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		4	6	---
Barium	ppm	ASTM D5185m		2	3	---
Molybdenum	ppm	ASTM D5185m		51	58	---
Manganese	ppm	ASTM D5185m		10	10	---
Magnesium	ppm	ASTM D5185m		771	741	---
Calcium	ppm	ASTM D5185m		1161	1193	---
Phosphorus	ppm	ASTM D5185m		683	653	---
Zinc	ppm	ASTM D5185m		890	908	---
Sulfur	ppm	ASTM D5185m		2170	2249	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	32	33	---
Sodium	ppm	ASTM D5185m		4	<1	---
Potassium	ppm	ASTM D5185m	>20	46	43	---

INFRA-RED

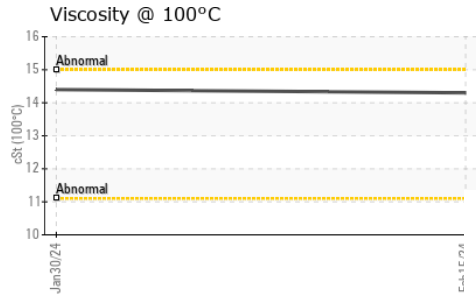
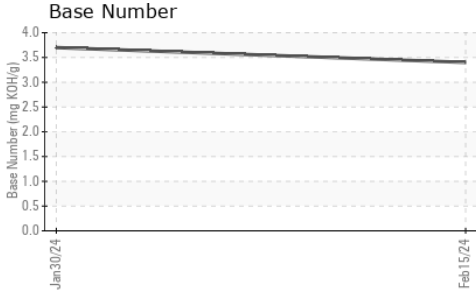
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		0.3	0	---
Nitration	Abs/cm	*ASTM D7624	>20	7.7	12.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.5	22.4	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.6	20.7	---
Base Number (BN)	mg KOH/g	ASTM D2896		3.4	3.7	---



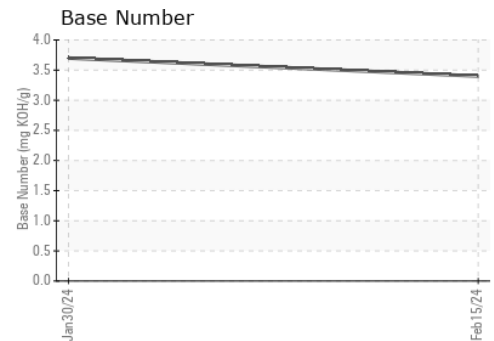
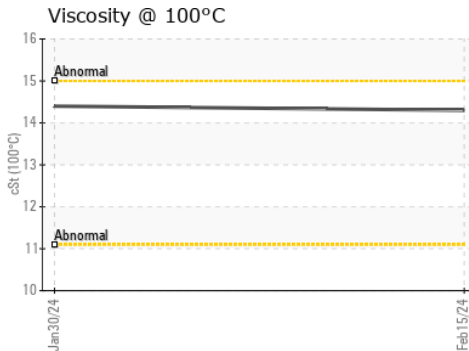
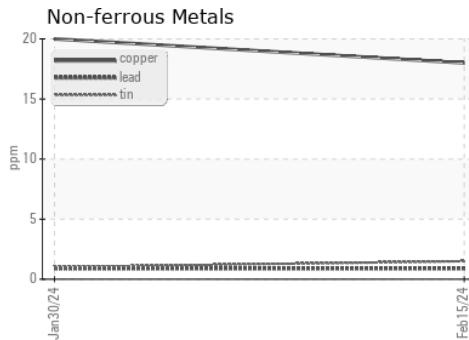
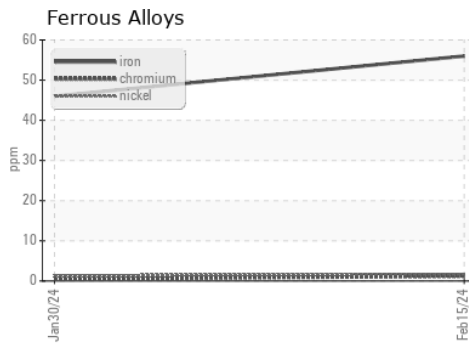
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.3	14.4	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108283
Lab Number : **06091578**
Unique Number : 10884431
Test Package : FLEET

Received : 16 Feb 2024
Tested : 19 Feb 2024
Diagnosed : 19 Feb 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: