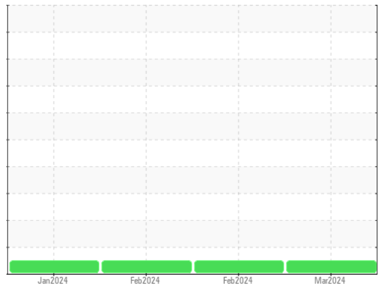
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
834101
Component
Natural Gas Engine
Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. 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		**GFL0111854**	GFL0111848	GFL0108262
Sample Date		Client Info		**05 Mar 2024**	22 Feb 2024	01 Feb 2024
Machine Age	hrs	Client Info		**584**	490	341
Oil Age	hrs	Client Info		**584**	490	341
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**NORMAL**	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**56**	59	49
Chromium	ppm	ASTM D5185m	>4	**3**	2	2
Nickel	ppm	ASTM D5185m	>2	**3**	2	2
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>9	**60**	60	51
Lead	ppm	ASTM D5185m	>30	**0**	0	<1
Copper	ppm	ASTM D5185m	>35	**17**	19	15
Tin	ppm	ASTM D5185m	>4	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**13**	17	28
Barium	ppm	ASTM D5185m		**2**	11	1
Molybdenum	ppm	ASTM D5185m		**65**	68	59
Manganese	ppm	ASTM D5185m		**14**	15	13
Magnesium	ppm	ASTM D5185m		**760**	707	755
Calcium	ppm	ASTM D5185m		**1269**	1126	1071
Phosphorus	ppm	ASTM D5185m		**636**	673	717
Zinc	ppm	ASTM D5185m		**865**	864	869
Sulfur	ppm	ASTM D5185m		**2261**	2387	2227

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**33**	34	31
Sodium	ppm	ASTM D5185m		**7**	3	6
Potassium	ppm	ASTM D5185m	>20	**157**	162	128

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0
Nitration	Abs/cm	*ASTM D7624	>20	**12.2**	11.8	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.5**	22.3	20.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**20.7**	19.7	18.7
Base Number (BN)	mg KOH/g	ASTM D2896		**3.8**	3.9	5.6

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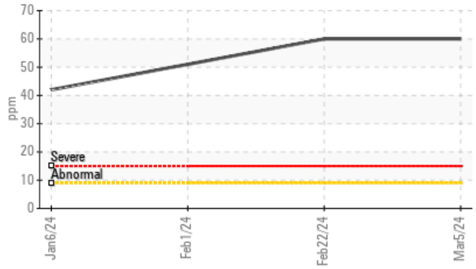
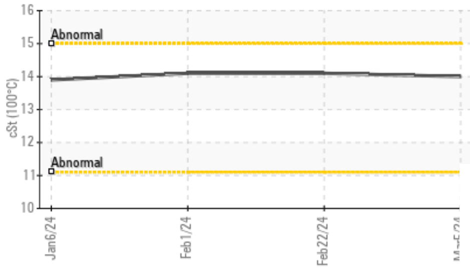
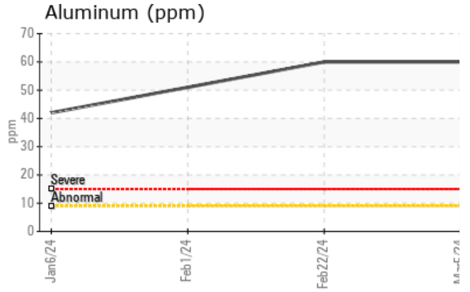
Aluminum (ppm)



Viscosity @ 100°C



Aluminum (ppm)

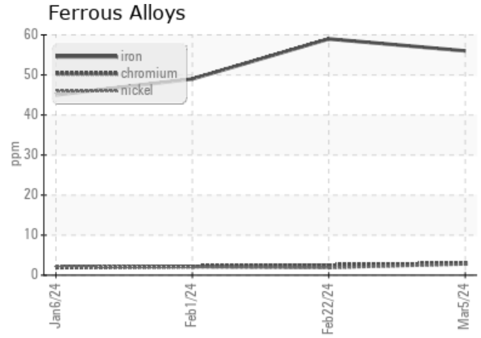


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

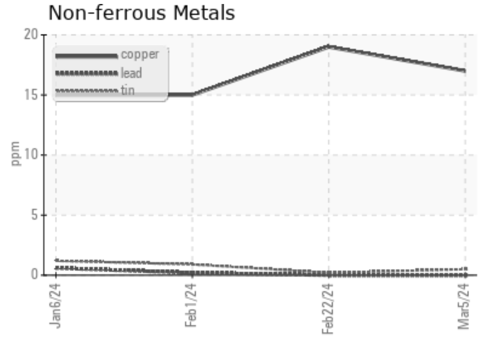
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		**14.0**	14.1	14.1

GRAPHS

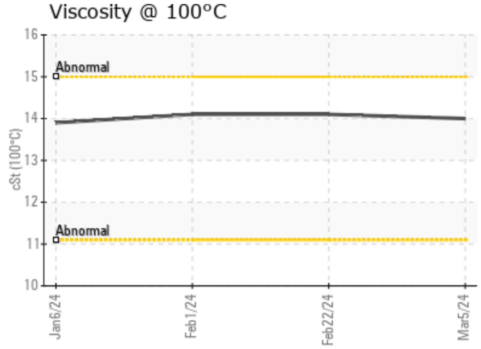
Ferrous Alloys



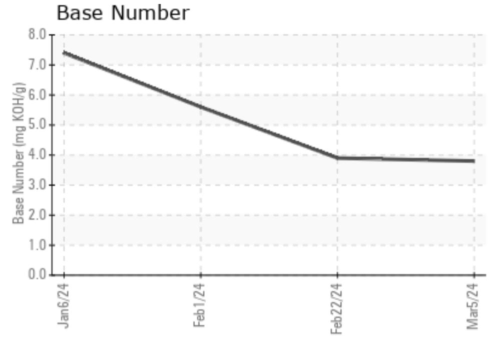
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0111854
Lab Number : 06111882
Unique Number : 10915379
Test Package : FLEET

Received : 07 Mar 2024
Tested : 08 Mar 2024
Diagnosed : 08 Mar 2024 - Wes Davis

GFL Environmental - 652 - Fredericksburg Hauling
10954 Houser Drive
Fredericksburg, VA
US 22408
Contact: WILLIAM MILO
wmilo@gflenv.com
T:
F:

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)