



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834101
 Component
Natural Gas Engine
 Fluid
NOT GIVEN (--- GAL)

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

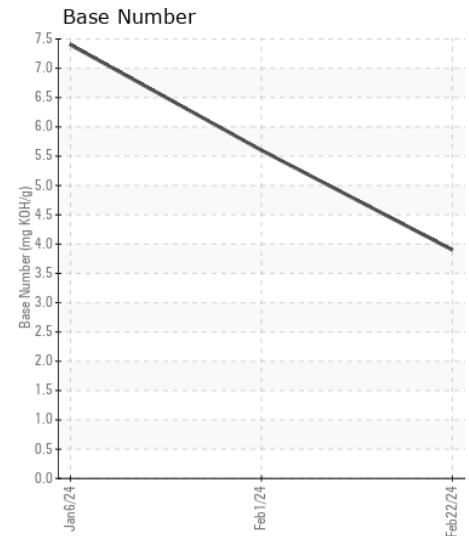
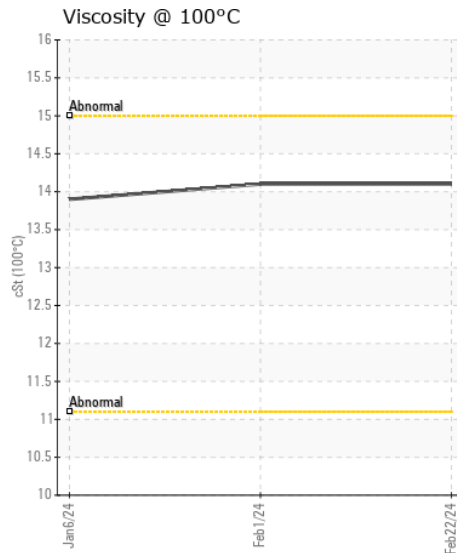
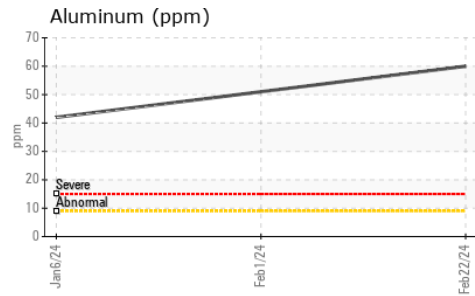
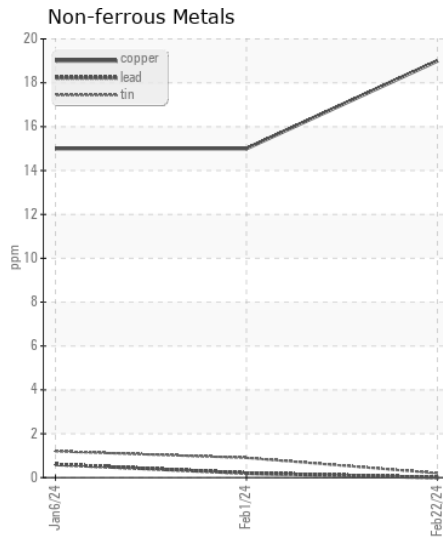
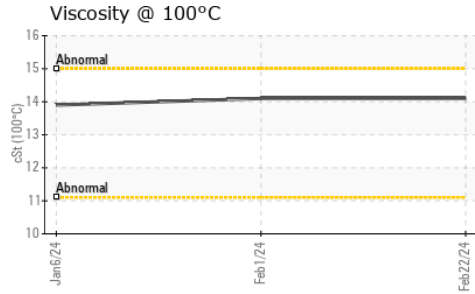
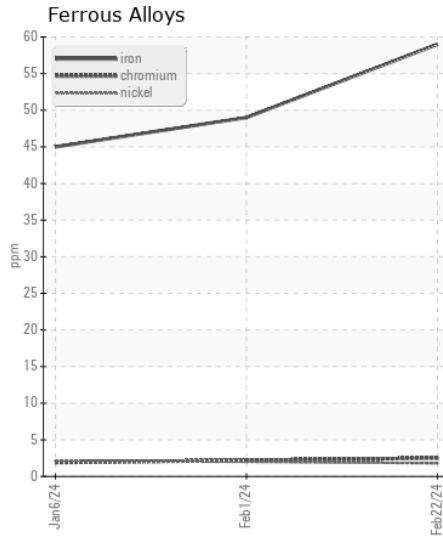
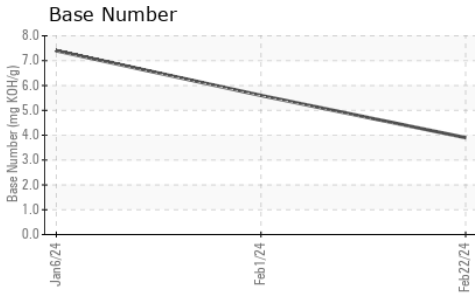
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL011848	GFL0108262	GFL0108335
Sample Date		Client Info		22 Feb 2024	01 Feb 2024	06 Jan 2024
Machine Age	hrs	Client Info		490	341	156
Oil Age	hrs	Client Info		490	341	156
Filter Age	hrs	Client Info		0	341	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

Iron	ppm	ASTM D5185m	>50	59	49	45
Chromium	ppm	ASTM D5185m	>4	2	2	2
Nickel	ppm	ASTM D5185m	>2	2	2	2
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	60	51	42
Lead	ppm	ASTM D5185m	>30	0	<1	<1
Copper	ppm	ASTM D5185m	>35	19	15	15
Tin	ppm	ASTM D5185m	>4	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

Silicon	ppm	ASTM D5185m	>+100	34	31	32
Potassium	ppm	ASTM D5185m	>20	162	128	123
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	11.8	11.2	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	20.8	20.7
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

Sodium	ppm	ASTM D5185m		3	6	7
Boron	ppm	ASTM D5185m		17	28	47
Barium	ppm	ASTM D5185m		11	1	3
Molybdenum	ppm	ASTM D5185m		68	59	61
Manganese	ppm	ASTM D5185m		15	13	13
Magnesium	ppm	ASTM D5185m		707	755	778
Calcium	ppm	ASTM D5185m		1126	1071	1160
Phosphorus	ppm	ASTM D5185m		673	717	806
Zinc	ppm	ASTM D5185m		864	869	907
Sulfur	ppm	ASTM D5185m		2387	2227	2409
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	18.7	17.9
Base Number (BN)	mg KOH/g	ASTM D2896		3.9	5.6	7.4
Visc @ 100°C	cSt	ASTM D445		14.1	14.1	13.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0111848
Lab Number : 06100028
Unique Number : 10898258
Test Package : FLEET

Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 27 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)

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F: