



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834047
 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		GFL0108123	GFL0102467	GFL0102517
Sample Date		Client Info		29 Jan 2024	30 Dec 2023	04 Dec 2023
Machine Age	hrs	Client Info		997	853	716
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	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

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	91	53	48
Chromium	ppm	ASTM D5185m	>4	1	<1	0
Nickel	ppm	ASTM D5185m	>2	3	2	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>9	7	4	2
Lead	ppm	ASTM D5185m	>30	4	2	<1
Copper	ppm	ASTM D5185m	>35	29	16	16
Tin	ppm	ASTM D5185m	>4	3	2	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

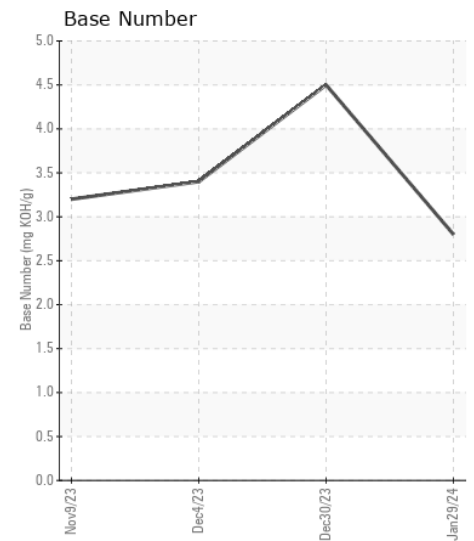
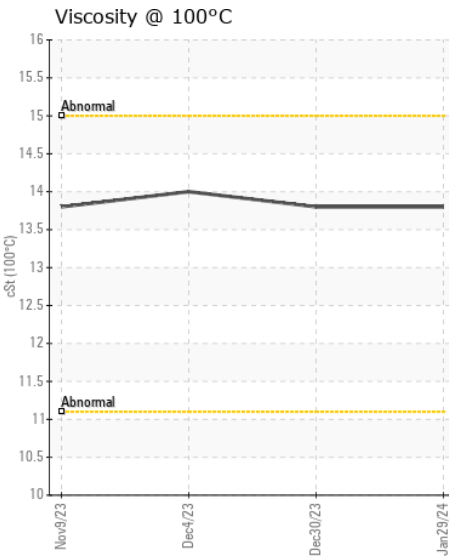
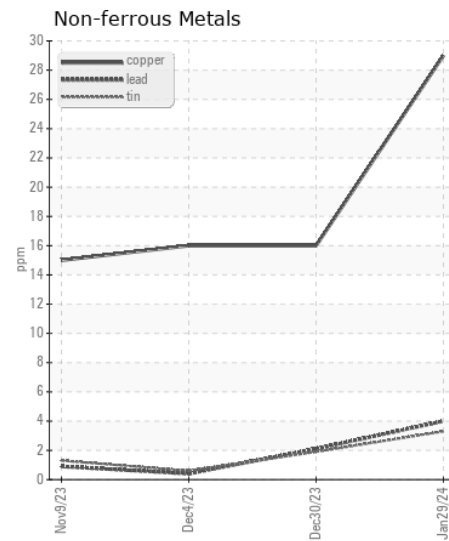
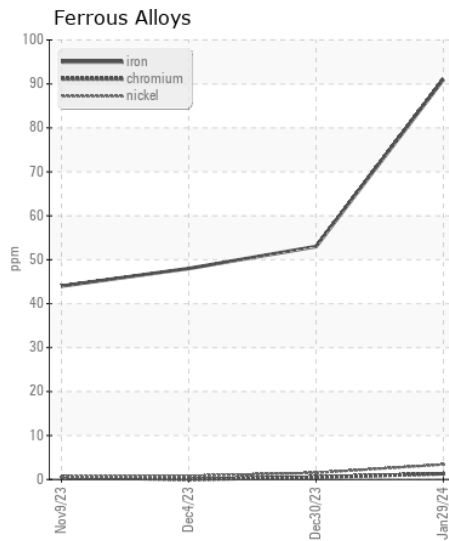
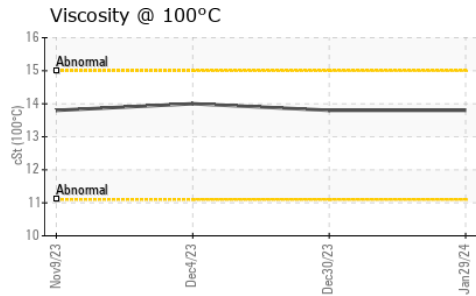
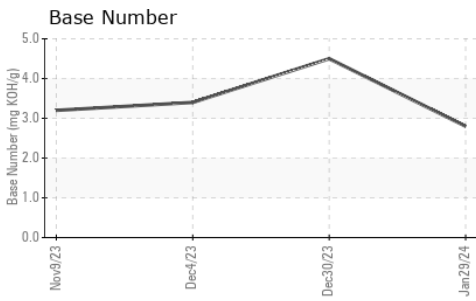
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	45	32	31
Potassium	ppm	ASTM D5185m	>20	4	2	3
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0.3	0
Nitration	Abs/cm	*ASTM D7624	>20	13.4	11.3	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.0	23.2	23.7
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

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		5	5	2
Boron	ppm	ASTM D5185m		6	6	6
Barium	ppm	ASTM D5185m		18	2	0
Molybdenum	ppm	ASTM D5185m		84	55	52
Manganese	ppm	ASTM D5185m		19	12	10
Magnesium	ppm	ASTM D5185m		1212	867	785
Calcium	ppm	ASTM D5185m		1739	1218	1146
Phosphorus	ppm	ASTM D5185m		1085	811	641
Zinc	ppm	ASTM D5185m		1361	1010	896
Sulfur	ppm	ASTM D5185m		3936	2474	2510
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.2	20.3	21.6
Base Number (BN)	mg KOH/g	ASTM D2896		2.8	4.5	3.4
Visc @ 100°C	cSt	ASTM D445		13.8	13.8	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0108123
Lab Number : 06086588
Unique Number : 10874033
Test Package : FLEET

Received : 12 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 Feb 2024 - Wes Davis

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: JOHNNY PEREZ
 johnny.perez@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: