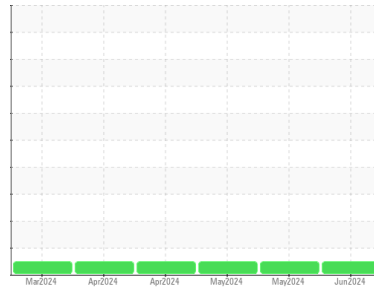




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
834009
 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

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		GFL0122080	GFL0116589	GFL0122043
Sample Date	Client Info		14 Jun 2024	21 May 2024	17 May 2024
Machine Age	hrs	Client Info	817	651	617
Oil Age	hrs	Client Info	166	651	617
Oil Changed	Client Info		Not Chngd	Changed	Not Chngd
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	45	50	41
Chromium	ppm	ASTM D5185m >4	1	2	<1
Nickel	ppm	ASTM D5185m >2	2	2	<1
Titanium	ppm	ASTM D5185m	<1	<1	0
Silver	ppm	ASTM D5185m >3	<1	1	<1
Aluminum	ppm	ASTM D5185m >9	8	8	6
Lead	ppm	ASTM D5185m >30	2	2	1
Copper	ppm	ASTM D5185m >35	16	20	16
Tin	ppm	ASTM D5185m >4	2	2	1
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	9	8	6
Barium	ppm	ASTM D5185m	4	3	4
Molybdenum	ppm	ASTM D5185m	59	62	55
Manganese	ppm	ASTM D5185m	13	14	13
Magnesium	ppm	ASTM D5185m	897	838	793
Calcium	ppm	ASTM D5185m	1406	1440	1372
Phosphorus	ppm	ASTM D5185m	868	768	711
Zinc	ppm	ASTM D5185m	1081	1037	940
Sulfur	ppm	ASTM D5185m	3041	2615	2650

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	27	32	29
Sodium	ppm	ASTM D5185m	6	4	4
Potassium	ppm	ASTM D5185m >20	16	17	11

INFRA-RED

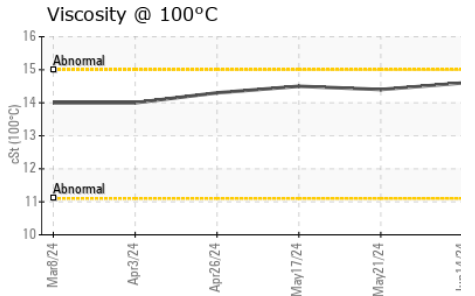
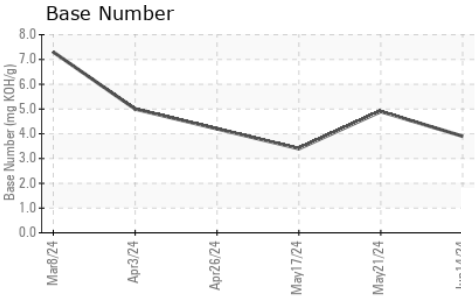
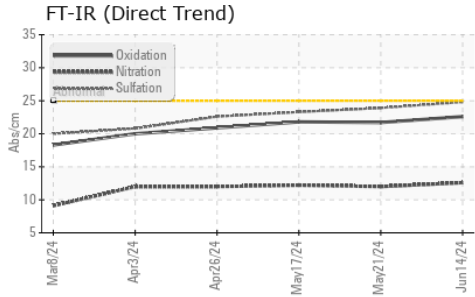
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0.4	0
Nitration	Abs/cm	*ASTM D7624 >20	12.6	12.0	12.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.8	23.9	23.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	22.6	21.7	21.8
Base Number (BN)	mg KOH/g	ASTM D2896	3.9	4.9	3.4



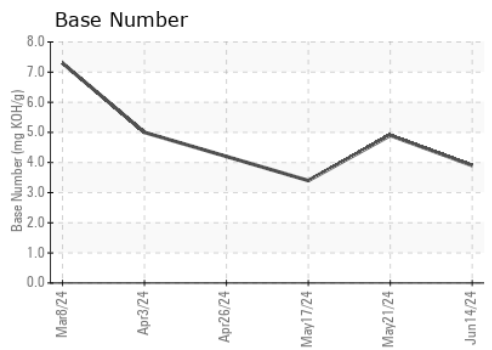
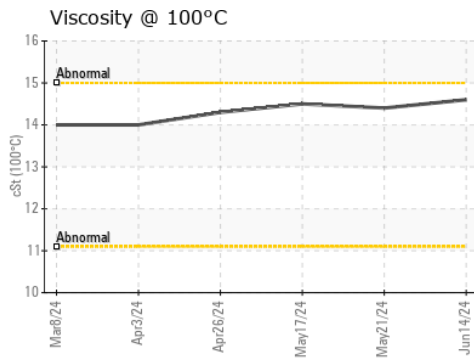
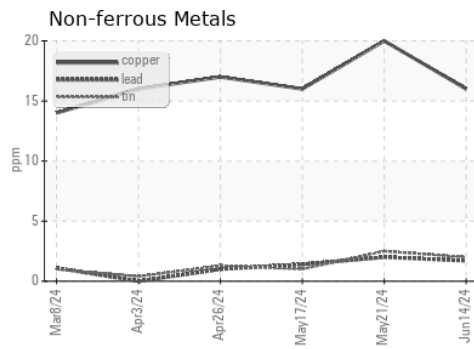
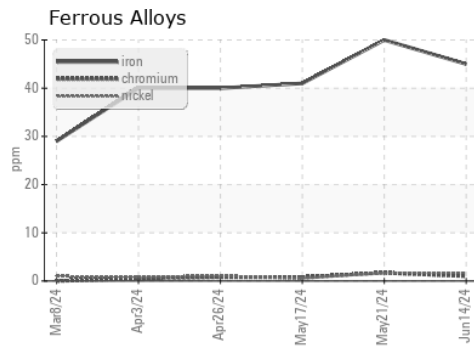
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.6	14.4	14.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122080 **Received** : 18 Jun 2024
Lab Number : 06213255 **Tested** : 19 Jun 2024
Unique Number : 11086119 **Diagnosed** : 19 Jun 2024 - 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)