



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
834025
Component
Natural Gas Engine
Fluid
NOT GIVEN (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0116590	GFL0116613	GFL0116582
Sample Date		Client Info		21 May 2024	26 Apr 2024	03 Apr 2024
Machine Age	hrs	Client Info		1223	1037	871
Oil Age	hrs	Client Info		1223	1037	871
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	45	40	38
Chromium	ppm	ASTM D5185m	>4	2	2	1
Nickel	ppm	ASTM D5185m	>2	2	3	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	1	<1	0
Aluminum	ppm	ASTM D5185m	>9	4	4	3
Lead	ppm	ASTM D5185m	>30	2	1	0
Copper	ppm	ASTM D5185m	>35	16	13	13
Tin	ppm	ASTM D5185m	>4	3	3	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

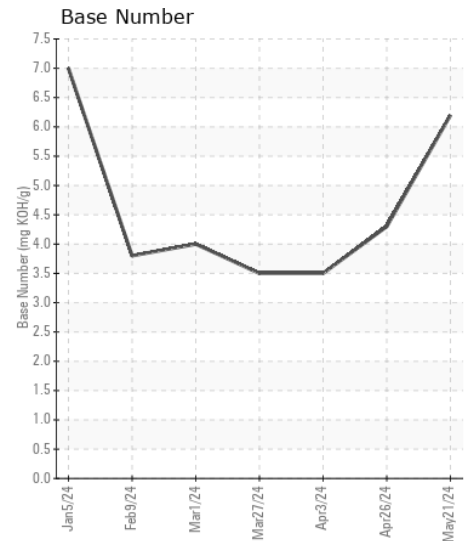
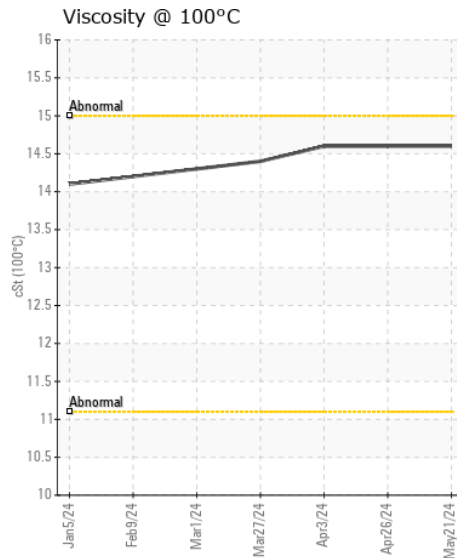
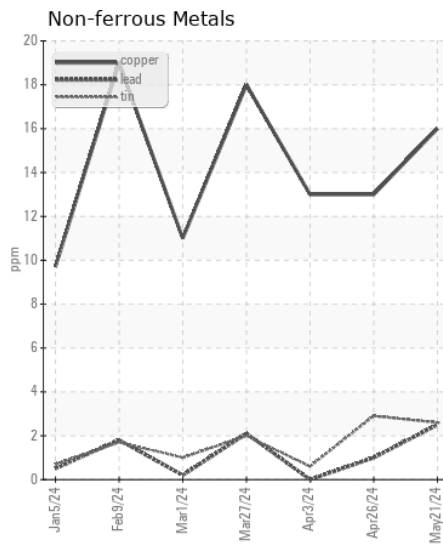
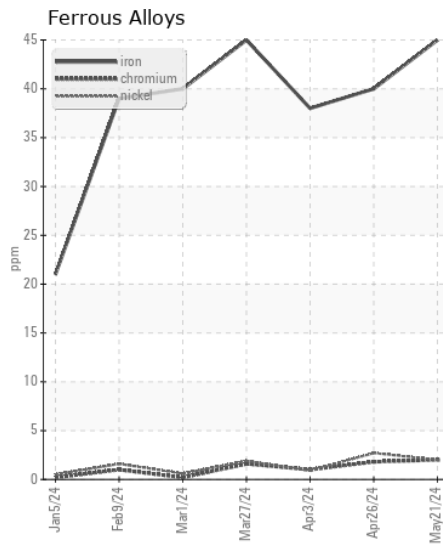
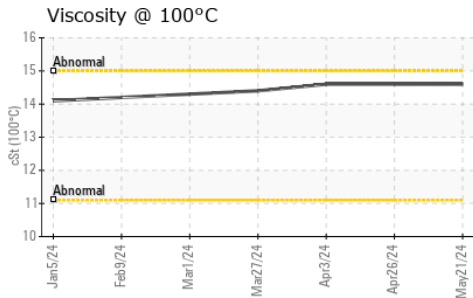
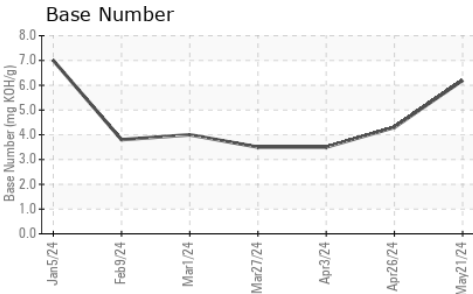
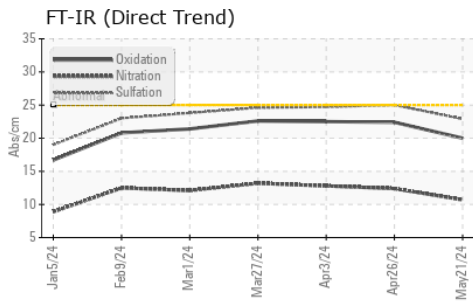
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	24	22	24
Potassium	ppm	ASTM D5185m	>20	7	5	4
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.4	0	0
Nitration	Abs/cm	*ASTM D7624	>20	10.7	12.4	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	25.0	24.7
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	4
Boron	ppm	ASTM D5185m		6	9	6
Barium	ppm	ASTM D5185m		2	3	3
Molybdenum	ppm	ASTM D5185m		64	60	56
Manganese	ppm	ASTM D5185m		12	12	12
Magnesium	ppm	ASTM D5185m		834	816	794
Calcium	ppm	ASTM D5185m		1559	1685	1445
Phosphorus	ppm	ASTM D5185m		845	870	681
Zinc	ppm	ASTM D5185m		1095	1114	992
Sulfur	ppm	ASTM D5185m		2786	3087	2774
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.0	22.4	22.5
Base Number (BN)	mg KOH/g	ASTM D2896		6.2	4.3	3.5
Visc @ 100°C	cSt	ASTM D445		14.6	14.6	14.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116590
Lab Number : 06189912
Unique Number : 11046664
Test Package : FLEET

Received : 23 May 2024
Tested : 25 May 2024
Diagnosed : 29 May 2024 - Sean Felton

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: